REMEDIAL ACTION COMPLETION REPORT

for

HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

Prepared for

THE PEOPLES GAS
LIGHT and COKE COMPANY

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PROJECT NO. 29168

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EXECUTIVE SUMMARY

The *Remedial Action Completion Report* (RACR) presents and describes remedial action activities conducted from April 2003 through September 2003, March through November 2004, and June 2005 at the Hawthorne Regulator Station (Site). This RACR has been prepared by Burns & McDonnell on behalf of The Peoples Gas Light and Coke Company (Peoples Gas) in accordance with the Site Remediation Program (SRP) [35 Illinois Administrative Code (IAC) Part 740].

Soil removal activities were implemented as described in the *Remediation Objectives Report and Remedial Action Plan* (ROR/RAP) (Burns & McDonnell 2003a). Remedial action activities discussed in the ROR/RAP were designed to meet Tiered Approach to Corrective Action Objectives (TACO) industrial/commercial Tier 1 soil ingestion, soil inhalation, and Class II soil to groundwater migration remediation objectives, and site-specific soil saturation limits (C_{sat}) (35 IAC 742). Since the ROR/RAP, the Site has been divided into North and South Portions in order to better define remediation objectives and remedial actions on the two areas.

The following remediation objectives and remedial actions were established:

<u>North Portion:</u>

- Remove all surface soil [0 to 3 feet below ground surface (bgs)] at the Site to meet industrial/commercial Tier 1 soil ingestion remediation objectives.
- Install an engineered barrier below ground surface consisting of a 40 millimeter (mil) high-density polyethylene (HDPE) liner over the portion of the former 5,000,000 cubic feet (ft^3) gas holder located on the Site. The engineered barrier was designed to meet industrial/commercial Tier 1 soil inhalation remediation objectives below 3 feet bgs within the former 5,000,000-ft^3 gas holder wall.
- Install and operate a soil vapor extraction (SVE) system to reduce volatile concentrations in the vicinity outside of the former 5,000,000-ft^3 gas holder and meet Tier 1 industrial/commercial inhalation remediation objectives and site-specific soil saturation limits (C_{sat}).

<u>South Portion:</u>

- Remove all surface soil (0 to 3 feet bgs) at the Site to meet industrial/commercial Tier 1 soil ingestion remediation objectives.
- Remove a subsurface soil cyanide hot spot to meet the Class II soil migration to groundwater remediation objective.

In general, remedial action activities included site preparation; waste characterization; excavation, stockpiling, and offsite disposal of impacted soils and pipes; confirmation soil sampling; management of water from excavations; backfilling; installation and operation of an SVE system; and demobilization and site restoration.

All excavated soil and water were disposed of at Illinois-approved disposal facilities. Imported, non-impacted coarse aggregate (CA6) was placed and compacted in the 3-foot and 4.5-foot excavation areas. In addition, imported, non-impacted ¾-inch stone was placed and compacted from 0 to 0.5-feet bgs.

After backfill and site restoration activities were completed at the Site, an SVE system consisting of three passive air inlet wells and three SVE wells was installed in September 2003 to reduce volatile concentrations in the North Portion of the Site. The main objective of the SVE system was to reduce the m,p-xylene concentration in the subsurface soil in the vicinity of soil sample SP33, which was identified as source material according to TACO. The SVE system operated from approximately March through October 2004.

Post-remediation soil samples were collected to evaluate the effectiveness of the SVE system. After the SVE system operated for approximately 17 weeks, soil samples were collected in the vicinity of SP33 and analyzed for target compound list (TCL) volatile organic compounds (VOCs). The m,p-xylene concentration in soil sample SP51C (7-7.5 feet bgs) was below the site-specific C_{sat} value of 1,019 mg/kg with a concentration of 920 mg/kg. The SVE system reduced the soil concentration of m,p-xylene by approximately 49 percent. Based on these initial post-remediation sampling results, the SVE system was shut down from July 10 to 30, 2004 to allow for any rebounding to occur prior to the post-remediation sampling activities. On July 28, 2004, post-remediation soil samples were collected according to a random sampling scheme and were analyzed for TCL VOCs, TCL semivolatile compounds (SVOCs), and priority pollutant metals. During the sampling event, visually impacted material was encountered; therefore, as a conservative measure, three additional soil samples were collected. All soil samples collected during the post-remediation sampling event were evaluated. The post-remediation subsurface soil samples were below site-specific soil saturation limits and average concentrations were below the Tier 1 industrial/commercial inhalation remediation objectives. However, benzene, ethylbenzene, total xylenes (m,p-xylene and o-xylene), and naphthalene exceeded the Tier 1 construction worker soil inhalation exposure route and will require the implementation of institutional controls on the property.

Subsurface soil sample CF03-002 collected during the post-remediation sampling event in the North Portion contained total lead concentration of 7,200 mg/kg. In addition, soil sample CF03-002 was analyzed for toxicity characteristic leaching procedure (TCLP) lead three times with concentrations of 51 mg/l, 17 mg/l, and 4.5 mg/l. Based on the TCLP lead results, a small subsurface area (approximately 10 feet by 12 feet) was excavated to approximately 8 feet bgs in the vicinity of CF03 in June 2005. Composite soil confirmation samples were collected from the sidewalls and floor of the excavation and analyzed for total lead and TCLP lead. The area was excavated until all composite sidewall and floor sample results were below the TCLP lead remedation objective of 5.0 mg/l.

On the South Portion of the Site, remedial actions were intended to obtain an acceptable risk to utility and construction workers. After removal of all surface and one hot spot subsurface soil area, current acceptable methods and procedures approved by Illinois EPA in the ROR/RAP were used to evaluate risk to these populations. The Tier 3 risk assessment (RA) evaluated these scenarios using reasonable

maximum exposure (RME) and central tendency (CT) estimates. Both the RME noncarcinogenic hazard index (HI) and the RME carcinogenic risk for the utility worker scenarios were acceptable; and therefore no further action is necessary. In regard to the construction worker scenario, which evaluated risk based on the maximum detected concentrations, the carcinogenic RME risk was above the $1x10^{-6}$ level of acceptable risk, but the CT risk was below $1x10^{-6}$. In general, the construction worker is expected to have most contact with the clean backfill areas which include 3 feet across the entire Site. The Tier 3 risk evaluation of soil in the designated areas should be considered acceptable, and no further remediation should be required on the South Portion.

The remedial action is intended to be a final action. All remaining soil complies with established remediation objectives. A minimum of three feet of imported soil exists across the Site for industrial/commercial usage of the property. Future use of the Hawthorne Regulator Station will continue to be industrial/commercial; therefore, land use will be limited and special conditions will be applied to the Site. The following special conditions apply to the Site:

<u>North Portion:</u>

- Future use of the property will be industrial/commercial by institutional control.
- Soil excavated greater than 3 feet bgs should not be placed within the upper 3 feet of the Site. The excavated soil should be placed back below 3 feet or disposed offsite at an approved special waste disposal facility.
- An institutional control shall be imposed in order to maintain and utilize the imported backfill and 40 mil HDPE liner as an engineered barrier on the portion of the former 5,000,000-ft^3 gas holder in this portion of the Site.
- An institutional control will be implemented for construction workers to ensure proper safety procedures will be followed in the event that soil is excavated below 3 feet.
- An institutional control will be implemented by invoking the City of Chicago ordinance that prohibits the installation of potable groundwater wells in the future to exclude both the soil and groundwater components of the groundwater ingestion pathway.

<u>South Portion:</u>

- Future use of the property will be industrial/commercial by institutional control;
- An institutional control will be implemented by invoking the City of Chicago ordinance that prohibits the installation of potable groundwater wells in the future to exclude both the soil and groundwater components of the groundwater ingestion pathway.

With the implementation of the special conditions specified above, no further remedial activity is necessary at the Site, and a comprehensive No Further Remediation letter is anticipated for industrial/commercial use with construction worker restrictions on the North Portion of the Site and a

comprehensive No Further Remediation letter is anticipated for industrial/commercial use on the South portion of the Site.

* * * * *

1.0 INTRODUCTION

The *Remedial Action Completion Report* (RACR) describes remedial action activities performed by Burns & McDonnell at The Peoples Gas Light and Coke Company (Peoples Gas) Hawthorne Regulator Station (Site). The remedial action activities were conducted from April through September 2003, March through November 2004, and June 2005 in accordance with the Illinois Site Remediation Program (SRP), 35 Illinois Administrative Code (IAC) Part 740, and Illinois Tiered Approach to Corrective Action Objectives (TACO), 35 IAC Part 742.

Removal activities were implemented as described in the *Remediation Objectives Report and Remedial Action Plan-Hawthorne Regulator Station* (ROR/RAP) (Burns & McDonnell 2003a). Remedial action activities discussed in the ROR/RAP included removal of all surface soil [0 to 3 feet below ground surface (bgs)], removal of a subsurface soil cyanide hot spot area from 0 to 4.5 feet bgs, installation of an engineered barrier below ground surface consisting of a 40 millimeter (mil) high-density polyethylene (HDPE) liner over a portion of the former 5,000,000 cubic feet (ft^3) gas holder wall located on the Site, and installation of a soil vapor extraction (SVE) system to reduce volatile organic concentrations in the soil in the vicinity outside of the former 5,000,000-ft^3 gas holder. Additional activities included removal of asbestos-impacted pipes and abandoning an oil drip tank which were encountered during excavation activities.

This completion report is organized into six sections as follows:

- **Section 1.0–Introduction**
  This section describes the purpose and organization of this report and summarizes the general Site information, including location, environmental conditions, and post-remediation use of the Site.
- **Section 2.0–Field Activities**
  This section describes field activities conducted during the remedial action.
- **Section 3.0–Results**
  This section demonstrates that remedial action activities achieved the remediation objectives.
- **Section 4.0–Special Conditions**
  This section discusses special conditions that apply to the Site following remedial action activities.
- **Section 5.0–Conclusions**
  This section discusses the success of the remedial action in meeting the remediation objectives and assesses the completeness and accuracy of the supporting data.
- **Section 6.0–References**

1.1 GENERAL SITE INFORMATION

The Site is part of the former Hawthorne Avenue Station Gas Storage facility, encompassing 0.43 acres of the original 2.5 acre facility that existed east of Kingsbury Street between Willow and Wisconsin Streets. Figure 1 presents the Site location map. The former facility consists of three parcels now owned by

independent entities. One parcel is owned by the Commonwealth Edison Company, and is currently used as a transformer station and equipment storage yard. The second parcel is owned by Marcey Properties, LLC, which leases land to commercial entities. The third parcel is owned by Peoples Gas, and is used as a natural gas regulating station. Figure 2 presents the former Hawthorne Avenue Distribution Gas Storage Facility Layout Map. The Site discussed and referred to in this report is the Hawthorne Regulator Station located on the Peoples Gas parcel between Kingsbury Street and Marcey Street. Since the ROR/RAP was submitted, the Site has been divided into North and South Portions in order to better define remediation objectives and remedial actions. Figure 3 presents the Site layout map. Appendix A contains the Plat of Survey for the North and South Portions.

The Site is located in Section 32, Township 40 North, Range 14 East in the City of Chicago, Illinois in the North Township of Cook County and is currently used as a natural gas regulating station. The Site address is 1729 North Kingsbury Street. The Site was predominantly covered with asphalt prior to remedial activities and is located in an industrial/commercial area with no residential properties in the immediate vicinity. The legal descriptions of the two portions of the property are as follows:

North Portion:
NORTH LOT LEGAL DESCRIPTION:
THAT PART OF LOTS 9,17 AND 18 IN BLOCK 7 IN THE SUBDIVISION OF LOTS 1 AND 2 IN BLOCK 8 IN SHEFFIELD'S ADDITION TO CHICAGO IN SECTION 32, TOWNSHIP 40 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEASTERLY CORNER OF SAID BLOCK 7; THENCE NORTHWESTERLY ALONG THE NORTHEASTERLY LINE OF SAID BLOCK 7, 408.43 FEET FOR A POINT OF BEGINNING; THENCE SOUTHWESTERLY AT RIGHT ANGLE TO SAID NORTHEASTERLY LINE, 100.00 FEET; THENCE SOUTHWESTERLY AT AN ANGLE OF 170º57'36" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 30.52 FEET TO A POINT 240.0 FEET SOUTHEASTERLY OF NORTHWESTERLY CORNER OF BLOCK 7 AS MEASURED ALONG THE SOUTHWESTERLY LINE OF BLOCK 7 AND 115.0 FEET NORTHEASTERLY OF SAID SOUTHWESTERLY LINE AS MEASURED PERPENDICULARLY; THENCE NORTHWESTERLY AT AN ANGLE OF 90º49'19" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 47.00 FEET; THENCE NORTHEASTERLY AT AN ANGLE OF 97º13'05" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 124.03 FEET TO SAID NORTHEASTERLY LINE OF BLOCK 7; THENCE SOUTHEASTERLY ALONG SAID NORTHEASTERLY LINE, 51.57 FEET TO THE POINT OF BEGINNING, CONTAINING 6,482 SQUARE FEET OR 0.148 ACRES.

South Portion:

SOUTH LOT LEGAL DESCRIPTION:

THAT PART OF LOTS 6, 7, 8, 9, 18 AND 19 IN BLOCK 7 IN THE SUBDIVISION OF LOTS 1 AND 2 IN BLOCK 8 IN SHEFFIELD'S ADDITION TO CHICAGO IN SECTION 32, TOWNSHIP 40 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEASTERLY CORNER OF SAID BLOCK 7; THENCE NORTHWESTERLY ALONG THE NORTHEASTERLY LINE OF SAID BLOCK 7, 408.43 FEET; THENCE SOUTHWESTERLY AT RIGHT ANGLE TO SAID NORTHEASTERLY LINE, 100.00 FEET FOR A POINT OF BEGINNING; THENCE SOUTHWESTERLY AT AN ANGLE OF 223º58'20" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 184.22 FEET TO A POINT 30 FEET NORTHEASTERLY AS MEASURED PERPENDICULARLY FROM THE SOUTHWESTERLY LINE OF SAID BLOCK 7; THENCE NORTHWESTERLY ALONG SAID SOUTHWESTERLY LINE, 144.57 FEET TO A POINT 240.0 FEET SOUTHEASTERLY OF NORTHWESTERLY CORNER OF SAID BLOCK 7, THENCE NORTHEASTERLY AT RIGHT ANGLE TO THE LAST DESCRIBED COURSE, 115.00 FEET; THENCE NORTHEASTERLY AT AN ANGLE OF 178º10'41" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 30.52 FEET TO THE POINT OF BEGINNING, CONTAINING 12,723 SQUARE FEET OR 0.29 ACRES.

Previous investigation activities were conducted at the Site to evaluate the extent of possible environmental impacts from the former manufactured gas plant (MGP) operations. Those activities included site history research, site characterization, and subsurface investigation activities. The previous investigation activities are summarized below.

Hanson Engineers Incorporated (HEI) conducted a preliminary site investigation in 1991. The investigation included a review of the environmental setting, historical documents provided by Peoples Gas, Sanborn maps, and a water well survey. A former gas holder with a capacity of 5,000,000-ft^3 was identified as being located at the northwest corner of the former MGP facility near the intersection of Wisconsin Street and Marcey Street. The findings indicated that below ground structures of the gas holder may be present and, if present, may contain residual tars, unless the tar had been removed during demolition of the gas holder (HEI 1992). The preliminary investigation conducted by HEI provided background information; however, no samples were collected or analyzed.

In June 2002, Burns & McDonnell conducted site investigation (SI) activities at the Hawthorne Regulator Station. The objectives of the SI were to determine whether any residuals from past MGP activities were present in surface soil and subsurface soil and to define the nature and extent of impacted areas to aid in the development of remediation objectives. The SI field activities included the advancement of 26 soil probes, visual characterization of subsurface materials, and collection and analysis of select surface and subsurface soil samples. Soil samples were analyzed for target compound list (TCL) volatile organic compounds (VOCs), TCL semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), priority pollutant metals and total cyanide.

In April 2003, Burns & McDonnell conducted additional SI activities. The objective of the supplemental investigation was to determine a site-specific organic carbon fraction (f_{oc}) in soil. The field activities included the advancement of 19 soil probes and collection of soil samples in both the subsurface fill unit and native silty clay unit (total of 21 subsurface soil samples). Ten subsurface soil samples were collected and analyzed for total organic content (TOC) in the fill unit and 11 subsurface soil samples were collected and analyzed for TOC in the native silty clay unit in order to provide enough data to determine a statistically defensible, site-specific f_{oc}. In addition, two subsurface soil samples were collected and analyzed for TCL VOCs, TCL SVOCs, and total petroleum hydrocarbons (TPH); and two subsurface soil samples were collected and analyzed for synthetic precipitation leaching procedure (SPLP) chromium.

As a result of the June 2002 and April 2003 investigations, it was determined that the majority of the former 5,000,000-ft^3 gas holder is below the adjacent transformer station and equipment storage yard that is owned by the Commonwealth Edison Company. Surface soil across the Site was impacted by benzene, carbazole, various polynuclear aromatic hydrocarbons (PAHs), arsenic, and lead impacts.

1.2 RECOGNIZED ENVIRONMENTAL CONDITIONS

Investigation activities performed at the Site concluded that surface and subsurface soil exceeded industrial/commercial and construction worker Tier 1 remediation objectives. In addition, source material according to TACO was identified in soil sample SP33 (7 to 8 feet bgs). Figure 3 presents the location of soil probe SP33. Soil sample SP33 (7 to 8 feet bgs) exceeded the m,p-xylene site-specific soil saturation limit (C_{sat}) value of 1,019 mg/kg with a concentration of 1,800 mg/kg. As presented in Section 3.1 of the ROR/RAP (Burns & McDonnell 2003a), site-specific subsurface soil f_{oc} data was obtained and used to develop site-specific C_{sat} values. The corrective measures presented in Section 2.0 were intended to eliminate exposure to surface and subsurface soil exceeding established remediation objectives and to allow for industrial/commercial property use.

1.3 POST-REMEDIATION USE

The Site is located in a district zoned as Planned Manufacturing District (PMD) No. 1 with no residential properties in the immediate vicinity (City of Chicago, Zoning Department 2004). The Site is currently used as an active natural gas regulator station and is expected to continue to be used as an industrial/commercial property.

* * * * *

2.0 FIELD ACTIVITIES

This section describes field activities performed during remedial action activities at the Site in accordance with the ROR/RAP (Burns & McDonnell 2003a). Remedial actions included:

- Site preparation;
- Waste characterization;
- Excavation, stockpiling, and offsite disposal of impacted soils and pipes,
- Confirmation soil sampling;
- Management of water from excavations;
- Backfilling;
- Soil vapor extraction; and
- Demobilization and site restoration.

Remedial action photographs are presented in Appendix B.

2.1 SITE PREPARATION

The following site preparation tasks were performed between April 28 and May 9, 2003, prior to the initiation of remedial action field activities:

- Installation of temporary 8-foot chain-link fence to enclose the southeastern portion of remedial action activity area;
- Installation of temporary drop down electrical service;
- Placement of securely fastened silt fabric over the chain-link fence surrounding the remedial action activity area to limit offsite migration of odors, vapor, and dust emissions, if any, present during remedial activities; and
- Location of buried utilities.

2.2 WASTE CHARACTERIZATION

Waste characterization samples were collected and analyzed for both soil and water and all necessary soil and water disposal permits were obtained prior to remedial action activities. Analytical results and copies of disposal permits are presented in the *Remedial Action Disposal Quantities-Hawthorne Regulator Station* (Burns & McDonnell 2003b).

2.3 EXCAVATION, STOCKPILING, AND OFFSITE DISPOSAL OF IMPACTED SOILS AND PIPES

The remedial activities in the North and South Portions of the Site occurred in accordance with the ROR/RAP (Burns & McDonnell 2003a). Remedial activities consisted of excavation of all surface soil (0 to 3 feet bgs) at the Site, excavation of a small subsurface soil (3 to 4.5 feet bgs) area along the eastern property line, installation of an engineered barrier, and implementation of a SVE system. In addition, an oil drip tank was discovered, emptied and filled with flowable fill and left in place, and an asbestos-impacted pipe was uncovered and abated.

Excavation was sequenced and conducted to specific depths across the Site. A majority of the excavated material was loaded directly onto semi-trailer trucks. Measures were taken to ensure that potential stormwater runoff from stockpiled material did not migrate offsite. Once properly loaded onto semi-trailer trucks, all material was transported under manifest to the appropriate Illinois approved landfill. Transportation and disposal of material offsite occurred between 7 a.m. and 4 p.m.

During remedial activities, approximately 3,165 tons of non-hazardous special waste was excavated, manifested and transported to the CID RDF Facility. The disposal facility is owned and operated by Waste Management and is located in Calumet City, Illinois. Table 1 presents remedial action disposal quantities of special waste. Remedial action manifests are presented in the *Remedial Action Disposal Quantities-Hawthorne Regulator Station* (Burns & McDonnell 2003b).

2.3.1 North Portion

Surface soil excavation began at the northwestern edge of the North Portion in May 2003 and continued toward the southeastern boundary of the Site (approximately 40 feet by 125 feet in size). Fill material removed from this area consisted of asphalt, sand, cinders, and brick fragments.

During excavation to 3 feet bgs, a portion of the 5,000,000-ft^3 gas holder wall was encountered intact, extending out from under the northwestern boundary of the North Portion of the Site, adjacent to the Commonwealth Edison property. Hand-digging was performed around the concrete holder wall and the concrete holder bottom was determined to be intact at 5 feet bgs. The holder was visually clean and no odors were observed. Fill material consisting of clay with cinders was removed from inside the holder to 3 feet bgs. Impacts were not observed at the property line in this area.

Various pipes were encountered during excavation activities. Nine samples were collected from pipes discovered in the North Portion of the Site during remediation activities and analyzed for asbestos. Three samples (HAS-PWA-001, HAS-PWA-002 and HAS-PWA-003) were collected from wrapping around a 2-inch diameter gas pipe located along the northwestern boundary of the Site, near the former 5,000,000-ft^3 gas holder. In addition, three samples (HAS-PWB-001, HAS-PWB-002, and HAS-PWB-003) were collected from the black tar coating on a 6-inch diameter abandoned gas line that was attached to the former 5,000,000-ft^3 gas holder. Also, three samples (HAS-PWC-001, HAS-PWC-002, and HAS-PWC-003) were collected from the tar and canvas covering of the 30-inch diameter gas main which was centrally located in the North Portion. Asbestos samples were sent to STAT Analysis Corporation of Chicago, Illinois for analyses. Figure 4 shows the location of the asbestos samples.

One sample (HAS-PWA-001) tested positive for asbestos with chrysotile at 10-15% and non-asbestos components of binder at 80-85% and glass at 1-5%. All other asbestos samples collected at the Site were negative for asbestos compounds. Sample results are included in Table 2. Based on the analytical results, the asbestos containing material in the form of thermal system pipe insulation on the underground 6-inch

diameter abandoned gas line was removed. On June 16, 2003, Hygieneering, Inc. of Willowbrook, Illinois removed approximately 20 linear feet of pipe. The asbestos containing material was cut and placed in a 55-gallon drum for off-site disposal. The asbestos containing material was transported to the Waste Management CID Facility. Appendix C contains the asbestos documentation (analytical results, waste profile, and asbestos abatement report).

Additional pipes, not suspected of asbestos containing materials, were encountered along the eastern property line. All inactive utility pipes were cut up and removed. Any pipes leading to the regulator building or offsite were filled with cement grout.

The surface soil excavation across the North Portion of the Site satisfies the remediation objectives for Tier 1 industrial/commercial ingestion exceedences. Installation of the engineered barrier over the exposed portion of the former 5,000,000-ft^3 gas holder wall satisfies the remediation objectives for Tier 1 industrial/commercial inhalation in the vicinity of the former gas holder. To satisfy the remediation objectives for Tier 1 industrial/commercial inhalation and/or site-specific C_{sat} limits at the North Portion of the Site, an SVE system was installed in September 2003. Discussion of the SVE system is included in Section 2.7.

2.3.2 South Portion

Remedial activities began in May 2003 with the excavation of surface soil (0 to 3 feet bgs) in the vicinity of the regulator houses on the South Portion of the Site and proceeded north until July 2003. Fill material removed from this area consisted of asphalt, sand, cinders and brick fragments. Impacts were not observed at the property lines.

In June 2003, a small subsurface soil (3 to 4.5 feet bgs) area approximately 30 feet by 15 feet in size was excavated along the eastern property line to meet Tier 1 soil migration to groundwater remediation objectives for cyanide. While excavating in the area, blue soil was observed. Odor-suppressing foam was applied to the soil to suppress odors during excavation. Based on visual observations, the proposed 4-foot deep excavation was extended to 4.5-feet bgs. After removing all visual impacts along the sidewalls and bottom of the 4.5-foot excavation, a composite confirmation sample was taken. The sample results were non-detect and the area was backfilled. Confirmation sample results are discussed in Section 2.4.

An oil drip tank was encountered during the surface soil excavation along the eastern property line. The oil drip tank was approximately 6-feet in diameter and 5-feet in length and appeared to extend approximately 2 to 3 feet offsite, onto the property owned by Marcey Properties, LLC. A waste characterization sample was collected from the contents of the oil drip tank. Appendix D contains the analytical results from the waste characterization. Approximately 525 gallons of oil were removed from the tank via vacuum truck and transported offsite for recycling. After the oil was removed, the tank was completely filled with flowable fill and abandoned in place.

2.4 CONFIRMATION SOIL SAMPLING

2.4.1 North Portion

Remedial objectives included excavating all surface soil on the Site. Therefore, no soil confirmation samples were taken in the North Portion of the Site during remedial activities. However, post-remediation soil samples were taken to evaluate the effectiveness of the SVE system; those results are discussed in Section 2.7.

2.4.2 South Portion

The cyanide hot spot area was marked and excavated to 4 feet bgs. Visual impacts were encountered at the bottom of the excavation; therefore, the excavation was extended to 4.5 feet bgs. After removing all visually impacted soil in the cyanide hot spot area, a composite sample (CF01-001) was collected from the bottom of the excavation and analyzed for SPLP cyanide and SPLP amenable cyanide to determine if the Class II soil to groundwater migration remediation objectives were satisfied. For composite samples, five aliquots of equal volume were collected from the subsurface excavation area and mixed into one composite confirmation sample. The confirmation sample was sent to the SIMALABS International analytical laboratory of Merrillville, Indiana. Analytical data sheets and validation memorandum are presented in Appendix E. Table 3 presents a comparison of the confirmation soil sample results to applicable remediation objectives. Figure 5 presents the confirmation soil sample location. Confirmation sample CF01-001 was below the remediation objective of 0.6 milligrams per liter (mg/l) for both SPLP cyanide and SPLP amenable cyanide with detected concentrations of 0.036 mg/l and 0.012 mg/l, respectively.

2.5 MANAGEMENT OF WATER FROM EXCAVATIONS

No water was encountered during excavation activities. Therefore, no water was removed from the excavations.

2.6 BACKFILLING

2.6.1 North Portion

Throughout the course of the excavation of the North Portion of the Site, the area was systematically backfilled to prepare for the SVE system. Backfill consisted of layers of imported sand, coarse aggregate, and two sheets of 6-mil polyethylene sheeting. Imported sand was placed and compacted from approximately 2.5 to 3 feet bgs. The two sheets of 6-mil polyethylene sheeting were layered and installed on top of the imported sand at approximately 2.5 feet bgs to minimize short-circuiting of the airflow for the SVE system. Additional imported sand was placed and compacted from approximately 2.0 to 2.5 feet bgs. Finally, imported coarse aggregate was placed on top of the polyethleyne from approximately 2.0 feet bgs to ground surface. In addition, imported, non-impacted ¾-inch stone was placed and compacted from 0 to 0.5-feet bgs.

In June 2003, an engineered barrier was installed over the uncovered portion of the former 5,000,000-ft^3 gas holder. The engineered barrier was installed in order to eliminate exposure to industrial/commercial and

construction worker inhalation pathway. The barrier consisted of a 40 mil HDPE liner which completely covered the portion of the gas holder that is located on the Site. The below ground surface engineered barrier is held in place with 2.5 feet of sand and coarse aggregate.

2.6.2 South Portion

Backfill consisting of sand and/or CA6 was placed and compacted across the site in 1-foot lifts. In addition, imported, non-impacted ¾-inch stone was placed and compacted from 0 to 0.5-feet bgs. Letters provided by Ozinga Chicago RMS, Inc., Vulcan Materials Company, and Material Service Corporation guaranteeing clean material are presented in Appendix F. Compaction testing was performed using 90% modified proctor criteria throughout backfill activities. Results included wet density, moisture, dry density, percent moisture and percent compaction. Compaction testing was performed by a certified Troxler® operator and transporter using a Troxler® surface moisture-density gauge. Troxler® certification is also presented in Appendix F.

2.7 SOIL VAPOR EXTRACTION

A dual-phase SVE system was installed to reduce volatile concentrations in the soil outside of the former 5,000,000-ft^3 gas holder in the North Portion of the Site. The main objective of the SVE system was to reduce the m,p-xylene concentration in the subsurface soil in the vicinity of soil sample SP33, which was identified as source material according to TACO. Soil sample SP33 (7-8 feet bgs) exceeded the m,p-xylene site-specific C_{sat} value of 1,019 mg/kg with a concentration of 1,800 mg/kg. As presented in Section 3.1 of the ROR/RAP (Burns & McDonnell 2003a), site-specific subsurface soil f_{oc} data was obtained and used to develop site-specific C_{sat} values. In general, the dual-phase SVE system used at the Site provided a vacuum source which created a negative pressure gradient causing air, especially VOC-laden vapor, and groundwater to flow through the soil pore-space. At the Site, the VOC-laden vapor phase was continuously extracted and treated with granular activated carbon (GAC) before being discharged to the atmosphere.

Permits for the SVE system were obtained from both the City of Chicago Department of Environment and the Illinois Environmental Protection Agency (Illinois EPA) prior to the construction of the SVE system. The City of Chicago, Department of Environment, Pollution Prevention Unit issued an Installation Permit (Permit Number 030611549). The Illinois EPA issued a Joint Construction and Operating Permit (I.D. No. 031600GOP). Appendix G contains the SVE permits.

The SVE and passive inlet wells were installed in September 2003 using 6-1/4-inch inside diameter (ID) hollow stem augers. Figure 6 presents the SVE well location map. Monitoring of the drill cuttings was conducted with a photo-ionization detector (PID) during installation. The wells were constructed of 4-inch ID Schedule 40 PVC. Each 10-foot SVE well was constructed of 5-feet of 0.010-inch factory-slotted screen set at a terminus depth of approximately 10 feet below surface grade. Threaded Schedule 40 polyvinyl chloride (PVC) bottom plugs and casing were used to complete the wells to grade.

A trailer mounted dual-phase extraction system (10 HP–Liquid Ring Pump) from Maple Leaf Environmental Equipment, Ltd. from Ontario, Canada was used at the Site. The dual-phase extraction system consisted of the following major components: control panel, phase separator, transfer pump, and liquid ring pump. In addition to the extraction system, two 55-gallon drums of GAC in series were used to treat vapors before discharge to the atmosphere. The SVE system operated from approximately March through October 2004.

Air monitoring activities were conducted during operation of the SVE system to monitor the effectiveness of the SVE system and GAC treatment. During the operation of the SVE system, daily air monitoring was conducted and consisted of using a photoionization detector to measure VOC concentrations at sample ports located before (pre-GAC) and after (post-GAC) GAC treatment. In addition, various SVE operational parameters (e.g., vapor extractions flow rate, discharge temperature, and pressure readings) were recorded daily. Appendix H contains the SVE system operation and maintenance records.

Ambient air grab samples were collected and analyzed once a week. The ambient air samples were collected in laboratory provided Summa® canisters at sample ports located at the above-mentioned locations and were analyzed for Site-specific Hazardous Air Pollutant (HAP) VOC constituents (carbon disulfide, 1,1-dichloroethane, dibenzofuran, 2-butanone, 1,1,1-trichloroethane, benzene, trichloroethene, toluene, tetrachloroethene, ethylbenzene, styrene, m,p-xylene, o-xylene, chloromethane, and naphthalene) by EPA Method TO-15. In addition, ambient air grab samples were collected and analyzed for dibenzofuran and bis(2-ethylhexyl)phthalate using EPA Method 8270C. Since results from these samples were consistently non-detect, analyses of dibenzofuran and bis(2-ethylhexyl)phthalate was discontinued before the end of the SVE system operation. Based on the results from the SVE system, GAC treatment reduced vapor concentrations approximately 90 percent before emission to the atmosphere. Results from the pre-GAC and post-GAC air monitoring samples are included in Tables 4 and 5, respectively. Analytical results from air monitoring samples are included in Appendix I.

During operation of the SVE system, four sets of GAC drums were used. The GAC drums were set up on March 15, 2004 and were replaced on May 5 and 25 and June 16, 2004. A total of eight drums of GAC were disposed of after completion of the SVE system operation. Analytical profiles and manifest data for carbon disposal are presented in Appendix J.

Water was encountered at the Site during operation of the SVE system. The dual-phase SVE system was extracting both vapor and water from the subsurface. Therefore it was necessary to connect a 6,900 gallon double walled polyethene tank to the SVE system to contain the water during operation of the system. During accumulation of the water, four water samples were collected and analyzed for disposal parameters. Appendix K contains the analytical results for SVE liquid samples. The water was periodically removed from the tank via vacuum truck and transported offsite to the CID Biological Treatment Facility in Calumet City, Illinois. Approximately 122,098 gallons of water were removed during operation. Table 6 contains the liquid disposal quantities. Copies of the manifests are included in Appendix L.

In addition to air monitoring of the SVE system, post-remediation soil samples were collected to evaluate the effectiveness of the SVE system. After the SVE system operated for approximately 17 weeks, soil samples were collected in the vicinity of SP33 and analyzed for TCL VOCs. The m,p-xylene concentration in soil sample SP51C (7-7.5 feet bgs) was below the C_{sat} value of 1,019 mg/kg with a concentration of 920 mg/kg. Therefore, the SVE system reduced the m,p-xylene concentration in the vicinity of SP33 by approximately 49 percent. Based on these initial post-remediation sampling results, the SVE system was shut down from July 10 to 30, 2004 to allow for any rebounding to occur prior to the post-remediation sampling event. On July 28, 2004, post-remediation soil samples were collected according to a random sampling scheme and analyzed for TCL VOCs, TCL SVOCs, and priority pollutant metals. Table 7 presents the post-remediation random sampling scheme. During the sampling event, visually impacted material was encountered; therefore, as a conservative measure, three additional subsurface post-remediation soil samples were collected. Appendix M presents the soil probe logs from post-remediation sampling activities. Figure 7 presents the post-remediation sample location map. Analytical results for the post-remediation soil samples are presented in Appendix N.

The SVE post-remediation soil samples collected in the North Portion were compared to Tier 1 industrial/commercial and construction worker inhalation remediation objectives and site-specific C_{sat} limits. As a conservative measure, all samples collected during the post-remediation sampling event were evaluated. Table 8 presents the Tier 1 industrial/commercial soil inhalation exposure route evaluation. Benzene, ethylbenzene, xylene, and naphthalene exceeded the Tier 1 industrial/commercial inhalation remediation objectives in at least one sample. However, when the average soil concentrations across the North Portion of the Site were evaluated, all average concentrations were below the Tier 1 industrial/commercial inhalation remediation objectives. Table 9 presents the Tier 1 construction worker soil inhalation exposure route evaluation. Benzene, ethylbenzene, total xylenes (m,p-xylene and o-xylene), and naphthalene exceed the Tier 1 construction worker soil inhalation remediation objectives. Figure 8 presents a Tier 1 soil inhalation exceedence map for a construction worker. Table 10 presents the site-specific soil saturation evaluation. All SVE post-remediation soil samples were below the site-specific soil saturation limits.

In addition, as a conservative measure, toxicity characteristic leaching procedure (TCLP) and SPLP lead analyses were conducted on four SVE post-remediation subsurface soil samples (CF02-001, CF03-002, CF04C-001, and CF06E-001) which contained lead concentrations above 400 mg/kg with concentrations ranging from 490 mg/kg in CF06E-001 to 7,200 mg/kg in CF03-002. TCLP lead was detected below the standard of 5.0 mg/l in three samples with concentrations ranging from 0.098 mg/l in CF06E-001 to 1.3 mg/l in CF02-001. However, soil sample CF03-002 was analyzed three times with concentrations of 51 mg/l, 17 mg/l, and 4.5 mg/l. In addition, SPLP lead was detected below the soil migration to groundwater screening level of 0.1 mg/l in the three samples with concentrations ranging from non-detect in CF04C-001 to 0.056 mg/l in CF06E-001. Soil sample CF03-002 was analyzed two times with concentrations of 0.11 mg/l and 0.017 mg/l with an average concentration of 0.06 mg/l. Therefore, SPLP lead is below the screening level of 0.1 mg/l in soil sample CF03-002.

Based on the TCLP lead results for subsurface soil sample CF03-002, a small subsurface area (approximately 10 feet by 12 feet) in the vicinity of CF03 was excavated to approximately 8 feet bgs in June 2005. Composite soil confirmation samples were collected on the sidewalls and floor of the excavation and analyzed for total lead and TCLP lead. The area was excavated until all composite sidewall and floor samples were below the TCLP lead remediation objective of 5.0 mg/l. Figure 9 presents the North Portion soil confirmation sample location map. Table 11 presents the North Portion confirmation samples. Analytical results for the North Portion confirmation samples are presented in Appendix N.

During excavation of the lead subsurface area, approximately 26 tons of material was excavated and a waste characterization sample was collected. Appendix O contains the waste characterization results from the lead subsurface soil excavation. The excavated material was manifested and transported to the Waste Management CID RDF Facility located in Calumet City, Illinois. Table 1 presents remedial action disposal quantities of special waste. Remedial action manifests from the lead subsurface excavation are presented in Appendix O.

Therefore, the SVE post-remediation soil samples that were collected met the industrial/commercial inhalation remediation objectives (with the exception of the construction worker) and site-specific soil saturation limits based on the conservative evaluation that included all of the post-remediation samples that were collected. Although the SVE remediation objectives were met, the SVE system operated from July 30 to October 2, 2004 to allow for additional reduction of volatiles in the soil. In addition, TCLP lead concentrations in the North Portion of the Site are below the lead toxicity characteristic criterion after excavation of the lead subsurface area.

2.8 DEMOBILIZATION AND SITE RESTORATION

Upon completion of remedial action activities, the following cleanup and site restoration activities were performed:

- Restoration of Site to original grade;
- Removal of temporary fabric and fencing;
- Removal of temporary onsite office trailer;
- Installation of bumper posts around gas lines;
- Demobilization of equipment used during remedial action activities; and
- Survey for legal descriptions of North and South Portions.

* * * * *

3.0 RESULTS

Remedial action activities and the SVE system in the North Portion of the Hawthorne Regulator Station removed and treated soil to meet Tier 1 industrial/commercial inhalation remediation objectives and Site-specific C_{sat} limits. In addition, a small subsurface area was excavated to 8 feet bgs in order to meet the lead toxicity characteristic criterion. Therefore, identified source material areas were remediated on the North Portion of the Site. However, exceedences of Tier 1 construction worker inhalation remediation objectives exist below 3 feet.

Remedial action activities in the South Portion removed surface soil and one subsurface soil hot spot to meet Tier 1 soil migration to groundwater remediation objectives. The Tier 3 Risk Assessment (RA) developed in the ROR/RAP was updated and rerun to confirm compliance with the risk-based assumptions for the South Portion of the Site. The updated risk assessment is presented in Appendix P. The Tier 3 RA evaluated these scenarios using reasonable maximum exposure (RME) and central tendency (CT) estimates. Both the RME noncarcinogenic hazard index (HI) and the RME carcinogenic risk for the utility worker scenarios were acceptable; and therefore, no further action is necessary. In regard to the construction worker scenario, which evaluated risk based on the maximum detected concentrations, the carcinogenic RME risk was above the $1x10^{-6}$ level of acceptable risk, but the CT risk was below $1x10^{-6}$. In general, the construction worker is expected to have most contact with the clean backfill areas which include 3 feet across the Site. The Tier 3 RA of soil should be considered acceptable, and no further remediation should be required on the South Portion. No impacts were observed along the property lines. Figure 10 presents the final excavation map.

* * * * *

4.0 SPECIAL CONDITIONS

This remedial action is intended to be a final action. All remaining soil complies with established remediation objectives. A minimum of three feet of clean imported soil exists across the Site for industrial/commercial usage of the property. Future use of the Hawthorne Regulator Station will continue to be industrial/commercial; therefore, land use will be limited and special conditions will be applied to the Site. The following special conditions apply to the Site:

North Portion:

- Future use of the property will be industrial/commercial by institutional control.
- Soil excavated greater than 3 feet bgs should not be placed within the upper 3 feet of the Site. The excavated soil should be placed back below 3 feet or disposed offsite at an approved special waste disposal facility.
- An institutional control shall be imposed in order to maintain and utilize the imported backfill and 40 mil HDPE liner as an engineered barrier on the portion of the former 5,000,000-ft^3 gas holder in this portion of the Site.
- An institutional control will be implemented for construction workers to ensure proper safety procedures will be followed in the event that soil is excavated.
- An institutional control will be implemented by invoking the City of Chicago ordinance that prohibits the installation of potable groundwater wells in the future to exclude both the soil and groundwater components of the groundwater ingestion pathway.

South Portion:

- Future use of the property will be industrial/commercial by institutional control;
- An institutional control will be implemented by invoking the City of Chicago ordinance that prohibits the installation of potable groundwater wells in the future to exclude both the soil and groundwater components of the groundwater ingestion pathway.

* * * * *

5.0 CONCLUSIONS

The remediation objectives established for the Hawthorne Regulator Station Site in the ROR/RAP (Burns & McDonnell 2003a) were met as a result of remedial activities as described in Section 2.0 of this report. Appendix Q presents the Site base map, which indicates the remediation Site boundary.

In the North Portion, surface soil that exceeded industrial/commercial Tier 1 remediation objectives was replaced with imported backfill. Source material near the former 5,000,000-ft^3 gas holder was treated with the SVE system to reduce volatile concentrations. In addition, a small subsurface area was excavated to 8 feet bgs in order to meet the lead toxicity characteristic criterion. Therefore, source material no longer exists on the North Portion of the Site. Remaining subsurface soil meets Tier 1 industrial/commercial worker soil inhalation remediation objectives and Site-specific soil saturation limits. In addition, construction worker restrictions will be implemented as an institutional control for soil below 3 feet across the North Portion of the Site.

In the South Portion, all surface soil that exceeded industrial/commercial Tier 1 remediation objectives was replaced with imported backfill. Remaining subsurface soil down to 10 feet bgs meets industrial/commercial worker Tier 1 remediation objectives and construction worker Tier 3 remediation objectives.

With the implementation of the special conditions discussed in Section 4.0 of this report, no further remediation is necessary at the Hawthorne Regulator Station, and a comprehensive NFR letter is anticipated for industrial/commercial use with construction worker restrictions on the North Portion of the Site and a comprehensive No Further Remediation letter is anticipated for industrial/commercial use on the South portion of the Site.

* * * * *

6.0 REFERENCES

Burns & McDonnell, 2003a. *Remediation Objectives Report and Remedial Action Plan – Hawthorne Regulator Station*, May.

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Illinois Administrative Code (IAC), 2002. *Tiered Approach to Corrective Action Objectives (TACO)*, Title 35: Environmental Protection, Subtitle G: Waste Disposal, Chapter I: Pollution Control Board, Subchapter f: Risk Based Cleanup Objectives, Part 742, February.

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TABLES
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

Table 1
Special Waste Disposal Quantities
Remedial Action
Hawthorne Regulator Station

Date	Manifest Number	Volume (tons)	Daily Total (tons)	Running Total (tons)
5/14/2003	10663524	22.945		
	10663525	41.840	64.785	64.785
5/15/2003	10663526	61.415	61.415	126.2
5/16/2003	10663527	76.370	76.370	202.57
5/19/2003	10663528	51.445	51.445	254.015
5/20/2003	10663529	74.720	74.720	328.735
5/21/2003	10663530	54.015	54.015	382.75
5/22/2003	10663531	74.850	74.850	457.6
5/23/2003	10663532	20.970		
	10663533	23.860	44.830	502.43
5/28/2003	10663534	51.545	51.545	553.975
5/29/2003	10663535	52.635	52.635	606.61
6/2/2003	10663536	55.615	55.615	662.225
6/4/2003	10663537	74.860		
	10663538	17.470	92.330	754.555
6/5/2003	10663539	67.270	67.270	821.825
6/6/2003	10663540	68.440		
	10663541	79.090	147.530	969.355
6/9/2003	10663542	50.445	50.445	1019.8
6/10/2003	10663543	69.460		
	10663544	75.640	145.100	1164.9
6/16/2003	10663545	68.090	68.090	1232.99
6/17/2003	10663546	70.710	70.710	1303.7
6/18/2003	10663547	72.450	72.450	1376.15
6/19/2003	10663548	36.370	36.370	1412.52
6/20/2003	10663549	55.915	55.915	1468.435
6/23/2003	10663550	78.320	78.320	1546.755
6/24/2003	10663551	56.965		
	10663552	20.270	77.235	1623.99
6/25/2003	10663553	73.470		
	10663554	68.835	142.305	1766.295
6/26/2003	10663555	66.570		
	10663556	67.230		
	10663557	77.970	211.770	1978.065
6/27/2003	10663558	74.965		
	10663559	66.550	141.515	2119.58
6/30/2003	10663560	75.460		
	10663561	80.090		
	10663562	71.190	226.740	2346.32

Table 1 (continued)
Special Waste Disposal Quantities
Remedial Action
Hawthorne Regulator Station

Date	Manifest Number	Volume (tons)	Daily Total (tons)	Running Total (tons)
7/3/2003	10663563	69.250	69.250	2415.57
7/7/2003	10663564	67.780		
	10663565	58.050	125.830	2541.4
7/9/2003	10663566	70.120		
	10663567	69.810	139.930	2681.33
7/10/2003	10663568	61.465		
	10663569	50.180	111.645	2792.975
7/11/2003	10663570	57.115		
	10663571	53.090		
	10663572	57.790	167.995	2960.97
7/14/2003	10663573	75.810		
	10663574	77.455	153.265	3114.235
7/15/2003	10663575	49.855	49.855	3164.09
7/22/2005	11763901	12.190		
	17763902	13.960	26.150	3190.240

Table 2 Asbestos Analytical Results Hawthorne Regulator station			
Location and Description of ACM	**Friable (F) or Non-Friable (NF)**	**Sample Number**	**Analytical Results (% asbestos)**
8 foot exposed pipe length with black canvas over tar on 2-inch diameter pipe	NF	PWA-001	Chrysotile - 10-15%
	NF	PWA-002	NA
	NF	PWA-003	NA
Black tar on set of 6-inch diameter MGP lines to holder	NF	PWB-001	ND
	NF	PWB-002	ND
	NF	PWB-003	ND
Tar and canvas on large diameter (~30-inch) gas line	NF	PWC-001	ND
	NF	PWC-002	ND
	NF	PWC-003	ND

Notes:
1) Material location was based on visual observations in accessible areas.
2) ACM – Asbestos containing material.
3) NA – Not analyzed.
4) ND – Non-detect.

Table 3
South Portion Confirmation Sample
Tier 1 Screening: Soil Migration to Groundwater Exposure Route
Class II Groundwater
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Screening Level	Sample/depth CF01-001 4.5'
SPLP Inorganics (mg/L)		
Total Cyanide	0.6	0.036
Amenable Cyanide	0.6	0.012

Table 4
Pre-Granular Activated Carbon Treatment Air Monitoring
SVE Activities
Hawthorne Regulator Station

Constituents	Date Sampled and Concentration									
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
	3/18/2004	3/25/2004	4/1/2004	4/8/2004	4/15/2004	4/22/2004	4/29/2004	5/6/2004	5/13/2004	5/20/2004
Volatile Organic Compounds (µg/std. m^3)										
Carbon disulfide	32 J*	31 J*	41 U	50.6	44 U	170 U	190 U	5.38	44 U	2.5 U
1,1-Dichloroethane	51 U	55 U	58 U	58 U	58 U	240 U	260 U	5.35	62 U	3.4 U
2-Butanone	37 U	40 U	42 U	45 U	45 U	180 UJ	200 UJ	3.6	48 U	2.6 U
1,1,1-Trichloroethane	520	460	322	383	244	320 U	350 U	216	83 U	111
Benzene	770	470	455	942	1010	1100	210 U	114	49 U	55 U
Trichloroethene	27 J*	41 J*	76 U	76 U	76 U	320 U	350 U	45.3	82 U	4.5 U
Toluene	300	210	234	498	536	575	250 U	69	138	49.8
Tetrachloroethene	23 J*	92 U	97 U	97 U	97 U	400 U	440 U	19.3	100 U	5.7 U
Ethylbenzene	2500	1500	1500	4860	6180	4150	750 J	335	190	88.3
m,p-Xylene	850	910	1100	2070	2600	3220	662 J	260	750	140 U
Styrene	17 BJ*	58 U	61 U	65 U	65 U	260 U	290 U	3.5 U	69 U	3.8 U
o-Xylene	970	860	1020	1770	2070	2380	530 J	230	388	75 U
Chloromethane	26 U	28 U	27 U	27 U	29 U	120 U	130 U	1.6 U	29 U	1.7 U
Naphthalene	1500	1900	7460	6920	8520	1600	1540 J	2020	1490	1650
Total VOCs	**7623**	**6655**	**12493**	**17862**	**21574**	**15035**	**6152**	**3328**	**3522**	**2193**
Semivolatile Organic Compounds (µg/PUF)										
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhaxyl)phthalate	42	5 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Notes:

1) µg/std. m^3 - micrograms per standard cubic meter.
2) J* - Indicates the compound was detected below the reporting limit.
3) U - Indicates the compound was not detected; the associated value is the sample reporting limit.
4) B - Indicates the compound was detected in the method blank below the quantitation limit.
5) J - Indicates an estimated value.
6) µg/PUF - micrograms per PUF

Table 4 (continued)
Pre-Granular Activated Carbon Treatment Air Monitoring
SVE Activities
Hawthorne Regulator Station

Constituents	Date Sampled and Concentration									
	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20
	5/27/2004	6/3/2004	6/10/2004	6/17/2004	6/24/2004	7/1/2004	7/8/2004	8/5/2004	8/12/2004	8/19/2004
Volatile Organic Compounds (µg/std. m^3)										
Carbon disulfide	2.5 U	7.28	2.2 U	9.81	2.2 U	9.18	5.38	44 U	6.65	24 U
1,1-Dichloroethane	4.07	3.79	5.35	7.41	5.76	5.76	3 U	58 U	3.91	33 U
2-Butanone	10.5	21	2.3 U	9.89	2.3 U	2.5 U	2.4 U	132	2.5 U	25 U
1,1,1-Trichloroethane	177	128	155	211	177	94.3	66.6 J	194	161	144
Benzene	188	143	58 U	8.12	2.3 U	179	2.4 UJ	153	2.6 U	120
Trichloroethene	52.4	36.6	29	32.2	20.8	16.4	8.19	76 U	15.8	44 U
Toluene	99.6	103	53.6	30.3	4.21	49.8	2.8 UJ	76.6	3.1 U	38.3
Tetrachloroethene	20	15.2	16.5	20.7	15.9	29.6	6.2	97 U	6.48	55 U
Ethylbenzene	486	441	159	12.4	3.2 U	530	3.3 U	530	3.5 U	574
m,p-Xylene	486	340	252	36.6	10.6	371	6.2 U	199	6.6 U	150
Styrene	3.85	3.3 U	6.5	3.7 U	3.3 U	11.3	3.4 U	65 U	3.7 U	37 U
o-Xylene	335	269	124	11.5	3.2 U	296	3.3 UJ	260	3.5 U	221
Chloromethane	1.7 U	1.4 U	1.4 U	1.6 U	1.4 U	1.6 U	1.5 U	29 U	1.6 U	16 U
Naphthalene	4530	4370	692	192	1440	6390	3.8 U	2770	692	4470
Total VOCs	**6397**	**5883**	**1557**	**587**	**1692**	**7986**	**118**	**4684**	**913**	**5951**
Semivolatile Organic Compounds (µg/PUF)										
Dibenzofuran	NS	NS	NS	NS	10 U	NS	NS	NS	NS	NS
Bis(2-ethylhaxyl)phthalate	NS	NS	NS	NS	10 U	NS	NS	NS	NS	NS

Notes:

1) µg/std. m^3 - micrograms per standard cubic meter.
2) U - Indicates the compound was not detected; the associated value is the sample reporting limit.
3) J - Indicates an estimated value.
4) µg/PUF - micrograms per PUF
5) NS - Not scheduled to be sampled.

Table 4 (continued)
Pre-Granular Activated Carbon Treatment Air Monitoring
SVE Activities
Hawthorne Regulator Station

Constituents	Week 21 8/26/2004	Week 22 9/2/2004	Week 23 9/9/2004	Week 24 9/16/2004	Week 25 9/23/2004	Week 26 9/30/2004
Volatile Organic Compounds (µg/std. m^3)						
Carbon disulfide	12.7 J	5.38	3.13	5.7	9.5 U	12 U
1,1-Dichloroethane	32.1 J	15.2	3.66	21.8	27	22
2-Butanone	2.4 U	2.4 U	3.6	4.8	23 U	28 U
1,1,1-Trichloroethane	227 J	721	122	777	330	820
Benzene	64.9 J	211	32.5	779	150	210
Trichloroethene	109 J	137	31.7	191	57	240
Toluene	91.9	69	27.2	111	54	59
Tetrachloroethene	29.6 J	82.7	10.3	96.5	21 U	73
Ethylbenzene	260 J	795	97.1	1680	490	750
m,p-Xylene	130 UJ	225	43.7	2160	130	190
Styrene	4.29 J	6.5	3.4 U	6.06	13 U	16 U
o-Xylene	97.1 J	335	44.1	1020	190	280
Chloromethane	1.5 U	1.6 U	1.5 U	1.6 U	16 U	20 U
Naphthalene	2080 J	12200	9590	25000	780	1800
Total VOCs	**3142**	**14807**	**10014**	**31854**	**2291**	**4520**
Semivolatile Organic Compounds (µg/PUF)						
Dibenzofuran	NS	NS	NS	NS	NS	NS
Bis(2-ethylhaxyl)phthalate	NS	NS	NS	NS	NS	NS

Notes:

1) µg/std. m^3 - micrograms per standard cubic meter.
2) U - Indicates the compound was not detected; the associated value is the sample reporting limit.
3) J - Indicates an estimated value.
4) µg/PUF - micrograms per PUF.
5) NS - Not scheduled to be sampled.

Table 5
Post-Granular Activated Carbon Treatment Air Monitoring
SVE Activities
Hawthorne Regulator Station

Constituents	Date Sampled and Concentration									
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
	3/18/2004	3/25/2004	4/1/2004	4/8/2004	4/15/2004	4/22/2004	4/29/2004	5/6/2004	5/13/2004	5/20/2004
Volatile Organic Compounds (µg/std. m3)										
Carbon disulfide	4.0 U	3.7 J*	2.09 U	6.01	2.1 U	3.8	4.12	2.4 U	2.3 U	2.4 U
1,1-Dichloroethane	5.1 U	5.5 U	2.8 U	2.9 U	2.9 U	2.8 U	3.2 U	3.3 U	3 U	3.3 U
2-Butanone	6.3	8.8	3.3	7.49	2.2 U	3.3 J	2.4 UJ	2.5 U	2.4 U	4.2
1,1,1-Trichloroethane	6.9 U	24	6.66	3.9 U	3.9 U	3.8 U	4.3 U	4.4 U	4.1 U	4.4 U
Benzene	13	2.1 J*	6.49	8.12	2.3 U	8.44	2.5 U	2.6 U	2.4 U	2.6 U
Trichloroethene	6.8 U	7.3 U	3.7 U	3.8 U	3.8 U	3.7 U	4.2 U	4.4 U	4 U	4.4 U
Toluene	5.6	5.1 U	3.64	4.98	2.7 U	4.98	2.9 U	3.1 U	2.8 U	3.1 U
Tetrachloroethene	8.6 U	9.2 U	4.7 U	4.8 U	4.8 U	4.7 U	5.3 U	5.5 U	5.1 U	5.5 U
Ethylbenzene	1.8 J*	5.9 U	28.2	32.2	3.1 U	30.5	3.44 J	3.5 U	3.3 U	3.5 U
m,p-Xylene	5.5 U	5.9 U	21.2	39.3	5.7 U	29.1	14.6 J	6.6 U	6.2 U	6.6 U
Styrene	16 B	5.8 U	3.1 U	3.2 U	3.2 U	3.1 U	3.5 U	3.7 U	3.4 U	3.7 U
o-Xylene	0.78 J*	5.9 U	19	28.7	3.1 U	21.6	4.86 J	3.5 U	3.3 U	3.5 U
Chloromethane	1.4 J*	2.8 U	1.4 U	1.4 U	1.4 U	1.4 U	1.6 U	1.6 U	1.5 U	1.6 U
Naphthalene	190	38	101	107	6.92	101	10.1 J	1490	53.3	117
Total VOCs	**272**	**130**	**207**	**254**	**48**	**222**	**67**	**1537**	**97**	**166**
Semivolatile Organic Compounds (µg/PUF)										
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhaxyl)phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Notes:

1) µg/std. m^3 - micrograms per standard cubic meter.
2) U - Indicates the compound was not detected; the associated value is the sample reporting limit.
3) J* - Indicates the compound was detected below the reporting limit.
4) B - Indicates the compound was detected in the method blank below the quantitation limit.
5) J - Indicates an estimated value.
6) µg/PUF - micrograms per PUF

Table 5 (continued)
Post-Granular Activated Carbon Treatment Air Monitoring
SVE Activities
Hawthorne Regulator Station

Constituents	Date Sampled and Concentration									
	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20
	5/27/2004	6/3/2004	6/10/2004	6/17/2004	6/24/2004	7/1/2004	7/8/2004	8/5/2004	8/12/2004	8/19/2004
Volatile Organic Compounds (µg/std. m3)										
Carbon disulfide	47 U	2.2 U	2.2 U	2.4 U	5.7	2.3 U	2.2 U	2.3 U	2.2 U	2.3 U
1,1-Dichloroethane	62 U	3 U	3 U	3.3 U	3 U	3.2 U	3 U	3.2 U	3 U	3.2 U
2-Butanone	780 U	4.8	2.3 U	2.5 U	5.7	4.8	2.3 U	8.09	3.3	2.4 U
1,1,1-Trichloroethane	83 U	4 U	4 U	4.4 U	4.1 U	4.3 U	4 UJ	4.3 U	4 U	4.3 U
Benzene	1560	2.3 U	2.3 U	4.55	2.4 U	2.5 U	3.57 J	2.5 U	2.4 U	12
Trichloroethene	82 U	3.9 U	3.9 U	4.4 U	4 U	4.2 U	3.9 U	4.2 U	4 U	4.2 U
Toluene	960 U	6.51	6.13	7.66	11.5	6.51	27.6 J	2.9 U	2.8 U	9.58
Tetrachloroethene	100 U	5 U	5 U	5.5 U	5.1 U	5.3 U	5 U	5.3 U	5 U	5.3 U
Ethylbenzene	411	3.2 U	3.2 U	3.5 U	15.9	6.18	6.18	3.4 U	3.2 U	3.4 U
m,p-Xylene	2100 U	15.9	10.6	12.4	37.1	14.1	29.1	6.6 U	6.2 U	7.5
Styrene	69 U	3.3 U	3.3 U	3.7 U	5.63	3.5 U	3.3 U	3.5 U	3.4 U	3.5 U
o-Xylene	1100 U	5.74	3.2 U	4.86	11.5	5.74	11.9 J	3.4 U	3.2 U	3.4 U
Chloromethane	31 U	1.4 U	1.4 U	1.6 U	1.5 U	2.52	1.4 U	1.6 U	1.5 U	1.6 U
Naphthalene	304	29.8	144	10.1	128	29.8	117	45.8	117	133
Total VOCs	**7689**	**91**	**195**	**71**	**241**	**95**	**220**	**97**	**161**	**196**
Semivolatile Organic Compounds (µg/PUF)										
Dibenzofuran	10 U	NS	NS	NS	10 U	NS	NS	NS	NS	NS
Bis(2-ethylhaxyl)phthalate	10 U	NS	NS	NS	10 U	NS	NS	NS	NS	NS

Notes:

1) µg/std. m^3 - micrograms per standard cubic meter.
2) U - Indicates the compound was not detected; the associated value is the sample reporting limit.
3) J - Indicates an estimated value.
4) µg/PUF - micrograms per PUF
5) NS - Not scheduled to be sampled.

Table 5 (continued)
Post-Granular Activated Carbon Treatment Air Monitoring
SVE Activities
Hawthorne Regulator Station

Constituents	Date Sampled and Concentration					
	Week 21	Week 22	Week 23	Week 24	Week 25	Week 26
	8/26/2004	9/2/2004	9/9/2004	9/16/2004	9/23/2004	9/30/2004
Volatile Organic Compounds (µg/std. m3)						
Carbon disulfide	2.4 U	4.12	4.75	5.7	4.3	5.4
1,1-Dichloroethane	3.3 U	5.76	6.58	14.4	22	26
2-Butanone	2.5 U	10.2	5.4	2.4 U	4.1 U	8.5 U
1,1,1-Trichloroethane	4.4 U	47.7	36.1	66.6	280	720
Benzene	2.6 U	2.5 U	2.4 U	2.4 U	1.8 U	3.7 U
Trichloroethene	4.4 U	4.2 U	4 U	4 U	3.0 U	6.2 U
Toluene	3.1 U	2.9 U	2.8 U	2.8 U	4.0	5.1
Tetrachloroethene	5.5 U	5.3 U	5.1 U	5.1 U	36	7.9 U
Ethylbenzene	3.5 U	3.4 U	3.3 U	3.3 U	2.4 U	5.0 U
m,p-Xylene	6.6 U	6.6 U	8.83	6.2 U	2.4 U	5.0 U
Styrene	3.7 U	3.5 U	3.4 U	3.4 U	2.3 U	4.9 U
o-Xylene	3.5 U	3.4 U	3.3 U	3.3 U	2.4 U	5.0 U
Chloromethane	1.6 U	1.6 U	1.5 U	1.5 U	2.8 U	6.0 U
Naphthalene	12.2	495	128	95.9	2.9 U	6.1 U
Total VOCs	**59**	**596**	**215**	**217**	**370**	**815**
Semivolatile Organic Compounds (µg/PUF)						
Dibenzofuran	NS	NS	NS	NS	NS	NS
Bis(2-ethylhaxyl)phthalate	NS	NS	NS	NS	NS	NS

Notes:

1) µg/std. m^3 - micrograms per standard cubic meter.

2) U - Indicates the compound was not detected; the associated value is the sample reporting limit.

3) µg/PUF - micrograms per PUF

4) NS - Not scheduled to be sampled.

Table 6
Estimated Water Disposal Quantities
SVE System - Remedial Activities
Hawthorne Regulator Station

Date	Manifest Number	Estimated Volume (Gallons)
3/15/2004	10806315	3,450
3/19/2004	10806316	3,850
3/25/2004	10832105	5,050
3/30/2004	10832219	5,225
4/2/2004	10832220	3,050
4/6/2004	10832221	3,325
4/13/2004	10832222	4,900
4/22/2004	10832223	5,400
4/28/2004	10832224	4,200
5/5/2004	10832226	4,475
5/12/2004	10832227	2,950
5/19/2004	10832228	5,400
5/25/2004	10832229	5,500
5/28/2004	10832230	3,800
6/1/2004	10832231	3,800
6/4/2004	10832232	3,000
6/11/2004	10832233	3,000
6/15/2004	10832234	3,000
6/24/2004	10832235	4,138
7/2/2004	10832236	1,785
7/8/2004	10832237	4,000
8/3/2004	10832238	3,000
8/9/2004	10832239	4,100
8/19/2004	10832240	4,300
8/27/2004	10832241	3,800
9/2/2004	10832242	5,400
9/8/2004	10832243	5,200
9/15/2004	10832244	3,800
9/22/2004	10832245	4,000
9/30/2004	10832246	4,200
10/8/2004	10832247	1,000
	Estimated Total Volume:	122,098

Table 7
SVE Post-Remediation Random Sampling Scheme
Hawthorne Regulator Station

Sample Location	Minimum Depth* (ft bgs)	Maximum Depth** (ft bgs)	Random Number	Designed Sampling Depth (ft bgs)	Sampling Interval (ft bgs)
CF02					
Sample 1	3	8.5	0.711	6.9	6-7
CF03					
Sample 1	3	8	0.920	7.6	7-8
CF04					
Sample 1	3	8	0.155	3.8	3-4
CF05					
Sample 1	3	12.5	0.706	9.7	9-10
CF06					
Sample 1	3	12	0.266	5.4	5-6
CF07					
Sample1	3	12.5	0.591	8.6	8-9

Notes:
1) Random Sampling across the Depth (i.e., a single randomly selected location) defined in USEPA 1989, *Methods for Evaluating the Attainment of Cleanup Standards*, Vol 1: Soil and Solid Media. EPA 230/02-89-042.
2) * Top 3 feet of soil will be excavated and therefore this portion of soil is excluded from sampling.
3) ** The depth to the native clay from the ground surface. No samples are to be collected below the native clay.
4) Design Sampling Depth = (Maximum Depth – Minimum Depth) x Random Number + Minimum Depth

Table 8
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Industrial/Commercial Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		SP51B-001 7-7.5	SP51C-001 7-7.5	CF02-001 6-7	CF03-001 7-8
TCL Volatiles (mg/kg)					
Acetone	100,000	2.6 U	2.3 U	0.034 U	0.026 U
Benzene	1.6	2	0.92	0.0068 U	0.0052 U
Bromodichloromethane	3,000	0.52 U	0.46 U	0.0068 U	0.0052 U
Bromoform	100	0.52 U	0.46 U	0.0068 U	0.0052 U
Bromomethane	15	1 U	0.92 U	0.014 U	0.01 U
2-Butanone	--	1 U	0.92 U	0.014 U	0.01 U
Carbon Disulfide	720	0.52 U	1.9	0.0068 U	0.0052 U
Carbon Tetrachloride	0.64	0.52 U	0.46 U	0.0068 U	0.0052 U
Chlorobenzene	210	0.52 U	0.46 U	0.0068 U	0.0052 U
Chloroethane	--	1 U	0.92 U	0.014 U	0.01 U
Chloroform	0.54	0.52 U	0.46 U	0.0068 U	0.0052 U
Chloromethane	--	1 U	0.92 U	0.014 U	0.01 U
Dibromochloromethane	1,300	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1-Dichloroethane	1,700	0.52 U	0.46 U	0.0068 U	0.0052 U
1,2-Dichloroethane	0.70	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1-Dichloroethene	1,500	0.52 U	0.46 U	0.0068 U	0.0052 U
cis-1,2-Dichloroethene	1,200	0.52 U	0.46 U	0.0068 U	0.0052 U
trans-1,2-Dichloroethene	3,100	0.52 U	0.46 U	0.0068 U	0.0052 U
1,2-Dichloropropane	23	0.52 U	0.46 U	0.0068 U	0.0052 U
cis-1,3-Dichloropropene	2.1	0.52 U	0.46 U	0.0068 U	0.0052 U
trans-1,3-Dichloropropene	2.1	0.52 U	0.46 U	0.0068 U	0.0052 U
Ethylbenzene	400	26	450	0.0068 U	0.0052 U
2-Hexanone	--	1 U	0.92 U	0.014 U	0.01 U
4-Methyl-2-Pentanone	--	1 U	0.92 U	0.014 U	0.01 U
Methylene Chloride	24	1 U	0.92 U	0.014 U	0.01 U
Methyl tert-butyl ether	8,800	0.52 U	0.46 U	0.0068 U	0.0052 U
Styrene	1,500	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1,2,2-Tetrachloroethane	--	0.52 U	0.46 U	0.0068 U	0.0052 U
Tetrachloroethene	20	0.52 U	0.46 U	0.0068 U	0.0052 U
Toluene	650	0.52 U	1.7	0.0068 U	0.0052 U
1,1,1-Trichloroethane	1,200	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1,2-Trichloroethane	1,800	0.52 U	0.46 U	0.0068 U	0.0052 U
Trichloroethene	8.9	0.52 U	0.46 U	0.0068 U	0.0052 U
Vinyl Chloride	1.1	0.52 U	0.46 U	0.0068 U	0.0052 U
m,p-Xylene	320	60	920	0.0068 U	0.0052 U
o-Xylene	320	13	63	0.0068 U	0.0052 U
Xylenes, Total	320	73	980	0.014 U	0.01 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) Shaded value exceeds Tier 1 remediation objectives.

Table 8 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Industrial/Commercial Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		SP51B-001 7-7.5	SP51C-001 7-7.5	CF02-001 6-7	CF03-001 7-8
TCL Semivolatiles (mg/kg)					
Aniline	--	NA	NA	0.44 U	0.39 U
Benzidine	--	NA	NA	0.44 U	0.39 U
Benzoic acid	--	NA	NA	2.1 U	1.9 U
Benzyl alcohol	--	NA	NA	0.44 U	0.39 U
Bis(2-chloroethoxy)methane	--	NA	NA	0.44 U	0.39 U
Bis(2-chloroethyl)ether	0.47	NA	NA	0.44 U	0.39 U
Bis(2-ethylhexyl)phthalate	31,000	NA	NA	0.44 U	0.39 U
4-Bromophenyl phenyl ether	--	NA	NA	0.44 U	0.39 U
Butyl benzyl phthalate	930	NA	NA	0.44 U	0.39 U
Carbazole	--	NA	NA	0.44 U	0.39 U
4-Chloro-3-methylphenol	--	NA	NA	0.44 U	0.39 U
4-Chloroaniline	--	NA	NA	0.44 U	0.39 U
2-Chloronaphthalene	--	NA	NA	0.44 U	0.39 U
2-Chlorophenol	53,000	NA	NA	0.44 U	0.39 U
4-Chlorophenyl phenyl ether	--	NA	NA	0.44 U	0.39 U
Dibenzofuran	--	NA	NA	0.44 U	0.39 U
1,2-Dichlorobenzene	560	NA	NA	0.44 U	0.39 U
1,3-Dichlorobenzene	--	NA	NA	0.44 U	0.39 U
1,4-Dichlorobenzene	17,000	NA	NA	0.44 U	0.39 U
3,3´-Dichlorobenzidine	--	NA	NA	0.89 U	0.78 U
Diethyl phthalate	2,000	NA	NA	0.44 U	0.39 U
Dimethyl phthalate	--	NA	NA	0.44 U	0.39 U
Di-n-butyl phthalate	2,300	NA	NA	0.44 U	0.39 U
2,4-Dichlorophenol	--	NA	NA	0.44 U	0.39 U
2,4-Dimethylphenol	--	NA	NA	0.44 U	0.39 U
4,6-Dinitro-2-methylphenol	--	NA	NA	2.1 U	1.9 U
2,4-Dinitrophenol	--	NA	NA	2.1 U	1.9 U
2,4-Dinitrotoluene	--	NA	NA	0.44 U	0.39 U
2,6-Dinitrotoluene	--	NA	NA	0.44 U	0.39 U
Di-n-octyl phthalate	10,000	NA	NA	0.44 U	0.39 U
Hexachlorobenzene	1.8	NA	NA	0.44 U	0.39 U
Hexachlorobutadiene	--	NA	NA	0.44 U	0.39 U
Hexachlorocyclopentadiene	16	NA	NA	0.44 U	0.39 U
Hexachloroethane	--	NA	NA	0.44 U	0.39 U
Isophorone	4,600	NA	NA	0.44 U	0.39 U
2-Methylnaphthalene	--	NA	NA	0.44 U	0.39 U
2-Methylphenol	--	NA	NA	0.44 U	0.39 U
4-Methylphenol	--	NA	NA	0.44 U	0.39 U
2-Nitroaniline	--	NA	NA	2.1 U	1.9 U
3-Nitroaniline	--	NA	NA	2.1 U	1.9 U
4-Nitroaniline	--	NA	NA	2.1 U	1.9 U
Nitrobenzene	140	NA	NA	0.44 U	0.39 U
2-Nitrophenol	--	NA	NA	0.44 U	0.39 U
4-Nitrophenol	--	NA	NA	2.1 U	1.9 U
N-Nitrosodimethylamine	--	NA	NA	0.44 U	0.39 U
N-Nitrosodi-n-propylamine	--	NA	NA	0.44 U	0.39 U
N-Nitrosodiphenylamine	--	NA	NA	0.44 U	0.39 U
2, 2'-oxybis(1-Chloropropane)	--	NA	NA	0.44 U	0.39 U
Pentachlorophenol	--	NA	NA	2.1 U	1.9 U
Phenol	--	NA	NA	0.44 U	0.39 U
Pyridine	--	NA	NA	0.44 U	0.39 U
1,2,4-Trichlorobenzene	3,200	NA	NA	0.44 U	0.39 U
2,4,5-Trichlorophenol	--	NA	NA	0.89 U	0.78 U
2,4,6-Trichlorophenol	390	NA	NA	0.44 U	0.39 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) NA - Not Analyzed.

Table 8 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Industrial/Commercial Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		SP51B-001 7-7.5	SP51C-001 7-7.5	CF02-001 6-7	CF03-001 7-8
PAHs (mg/kg)					
Acenaphthene	--	NA	NA	0.69	0.13
Acenaphthylene	--	NA	NA	0.22	0.11
Anthracene	--	NA	NA	2.6	0.27
Benzo(a)anthracene	--	NA	NA	6.4	0.9
Benzo(b)fluoranthene	--	NA	NA	7.7	0.68
Benzo(k)fluoranthene	--	NA	NA	2.5	0.7
Benzo(g,h,i)perylene	--	NA	NA	4.4	0.58
Benzo(a)pyrene	--	NA	NA	7	1.1
Chrysene	--	NA	NA	4.9	0.92
Dibenzo(a,h)anthracene	--	NA	NA	1	0.073
Fluoranthene	--	NA	NA	12	1.9
Fluorene	--	NA	NA	0.9	0.2
Indeno(1,2,3-cd)pyrene	--	NA	NA	3.3	0.42
Naphthalene	270	NA	NA	0.54	0.077
Phenanthrene	--	NA	NA	7.5	0.88
Pyrene	--	NA	NA	14	2.2
Priority Pollutant Metals and Total Cyanide (mg/kg)					
Antimony	--	NA	NA	11	3.4 U
Arsenic	1,200	NA	NA	31	5.2
Beryllium	2,100	NA	NA	0.71	0.57 U
Cadmium	2,800	NA	NA	3.6	0.57 U
Chromium	420	NA	NA	39	15
Copper	--	NA	NA	4100	24
Lead	--	NA	NA	890	280
Mercury	540,000	NA	NA	0.83	0.029 U
Nickel	21,000	NA	NA	19	24
Selenium	--	NA	NA	1.8	1.1 U
Silver	--	NA	NA	1.3 U	1.1 U
Thallium	--	NA	NA	1.3 U	1.1 U
Zinc	--	NA	NA	770	57
Total Cyanide	--	NA	NA	0.34 U	0.3 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) NA - Not Analyzed.

Table 8 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Industrial/Commercial Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		CF03-002 6-7	CF04C-001 7-8	CF04D-001 3-4	CF05C-001 9-10
TCL Volatiles (mg/kg)					
Acetone	100,000	0.056 U	2.2 U	0.029 U	0.025 U
Benzene	1.6	0.011 U	0.58	2.7	0.005 U
Bromodichloromethane	3,000	0.011 U	0.45 U	0.0058 U	0.005 U
Bromoform	100	0.011 U	0.45 U	0.0058 U	0.005 U
Bromomethane	15	0.022 U	0.89 U	0.012 U	0.01 U
2-Butanone	--	0.022 U	0.89 U	0.012 U	0.01 U
Carbon Disulfide	720	0.011 U	3.8	0.0058 U	0.005 U
Carbon Tetrachloride	0.64	0.011 U	0.45 U	0.0058 U	0.005 U
Chlorobenzene	210	0.011 U	0.45 U	0.0058 U	0.005 U
Chloroethane	--	0.022 U	0.89 U	0.012 U	0.01 U
Chloroform	0.54	0.011 U	0.45 U	0.0058 U	0.005 U
Chloromethane	--	0.011 U	0.45 U	0.012 U	0.01 U
Dibromochloromethane	1,300	0.011 U	0.45 U	0.0058 U	0.005 U
1,1-Dichloroethane	1,700	0.011 U	0.45 U	0.0058 U	0.005 U
1,2-Dichloroethane	0.70	0.011 U	0.45 U	0.0058 U	0.005 U
1,1-Dichloroethene	1,500	0.011 U	0.45 U	0.0058 U	0.005 U
cis-1,2-Dichloroethene	1,200	0.011 U	0.45 U	0.0058 U	0.005 U
trans-1,2-Dichloroethene	3,100	0.011 U	0.45 U	0.0058 U	0.005 U
1,2-Dichloropropane	23	0.011 U	0.45 U	0.0058 U	0.005 U
cis-1,3-Dichloropropene	2.1	0.011 U	0.45 U	0.0058 U	0.005 U
trans-1,3-Dichloropropene	2.1	0.011 U	0.45 U	0.0058 U	0.005 U
Ethylbenzene	400	0.011 U	65	0.0058 U	0.005 U
2-Hexanone	--	0.022 U	0.89 U	0.012 U	0.01 U
4-Methyl-2-Pentanone	--	0.022 U	0.89 U	0.012 U	0.01 U
Methylene Chloride	24	0.022 U	0.89 U	0.012 U	0.01 U
Methyl tert-butyl ether	8,800	0.011 U	0.45 U	0.0058 U	0.005 U
Styrene	1,500	0.011 U	0.45 U	0.0058 U	0.005 U
1,1,2,2-Tetrachloroethane	--	0.011 U	0.45 U	0.0058 U	0.005 U
Tetrachloroethene	20	0.011 U	0.45 U	0.041	0.005 U
Toluene	650	0.011 U	3.3	0.0058 U	0.005 U
1,1,1-Trichloroethane	1,200	0.011 U	0.65	0.42	0.005 U
1,1,2-Trichloroethane	1,800	0.011 U	0.45 U	0.0058 U	0.005 U
Trichloroethene	8.9	0.011 U	0.45 U	0.0058 U	0.005 U
Vinyl Chloride	1.1	0.011 U	0.45 U	0.0058 U	0.005 U
m,p-Xylene	320	0.011 U	230	0.0058 U	0.005 U
o-Xylene	320	0.011 U	360	0.0058 U	0.005 U
Xylenes, Total	320	0.022 U	590	0.012 U	0.01 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) Shaded value exceeds Tier 1 remediation objectives.

Table 8 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Industrial/Commercial Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		CF03-002 6-7	CF04C-001 7-8	CF04D-001 3-4	CF05C-001 9-10
TCL Semivolatiles (mg/kg)					
Aniline	--	0.54 U	4.4 U	0.41 U	0.4 U
Benzidine	--	0.54 U	4.4 U	0.41 U	0.4 U
Benzoic acid	--	2.6 U	22 U	2 U	1.9 U
Benzyl alcohol	--	0.54 U	4.4 U	0.41 U	0.4 U
Bis(2-chloroethoxy)methane	--	0.54 U	4.4 U	0.41 U	0.4 U
Bis(2-chloroethyl)ether	0.47	0.54 U	4.4 U	0.41 U	0.4 U
Bis(2-ethylhexyl)phthalate	31,000	0.54 U	4.4 U	0.41 U	0.4 U
4-Bromophenyl phenyl ether	--	0.54 U	4.4 U	0.41 U	0.4 U
Butyl benzyl phthalate	930	0.54 U	4.4 U	0.41 U	0.4 U
Carbazole	--	2.1	4.4 U	0.41 U	0.4 U
4-Chloro-3-methylphenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4-Chloroaniline	--	0.54 U	4.4 U	0.41 U	0.4 U
2-Chloronaphthalene	--	0.54 U	4.4 U	0.41 U	0.4 U
2-Chlorophenol	53,000	0.54 U	4.4 U	0.41 U	0.4 U
4-Chlorophenyl phenyl ether	--	0.54 U	4.4 U	0.41 U	0.4 U
Dibenzofuran	--	4.5	4.4 U	0.41 U	0.4 U
1,2-Dichlorobenzene	560	0.54 U	4.4 U	0.41 U	0.4 U
1,3-Dichlorobenzene	--	0.54 U	4.4 U	0.41 U	0.4 U
1,4-Dichlorobenzene	17,000	0.54 U	4.4 U	0.41 U	0.4 U
3,3´-Dichlorobenzidine	--	1.1 U	8.9 U	0.81 U	0.79 U
Diethyl phthalate	2,000	0.54 U	4.4 U	0.41 U	0.4 U
Dimethyl phthalate	--	0.54 U	4.4 U	0.41 U	0.4 U
Di-n-butyl phthalate	2,300	0.54 U	4.4 U	0.41 U	0.4 U
2,4-Dichlorophenol	--	0.54 U	4.4 U	0.41 U	0.4 U
2,4-Dimethylphenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4,6-Dinitro-2-methylphenol	--	2.6 U	22 U	2 U	1.9 U
2,4-Dinitrophenol	--	2.6 U	22 U	2 U	1.9 U
2,4-Dinitrotoluene	--	0.54 U	4.4 U	0.41 U	0.4 U
2,6-Dinitrotoluene	--	0.54 U	4.4 U	0.41 U	0.4 U
Di-n-octyl phthalate	10,000	0.54 U	4.4 U	0.41 U	0.4 U
Hexachlorobenzene	1.8	0.54 U	4.4 U	0.41 U	0.4 U
Hexachlorobutadiene	--	0.54 U	4.4 U	0.41 U	0.4 U
Hexachlorocyclopentadiene	16	0.54 U	4.4 U	0.41 U	0.4 U
Hexachloroethane	--	0.54 U	4.4 U	0.41 U	0.4 U
Isophorone	4,600	0.54 U	4.4 U	0.41 U	0.4 U
2-Methylnaphthalene	--	2.3	64	0.41 U	0.4 U
2-Methylphenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4-Methylphenol	--	1.8	4.4 U	0.41 U	0.4 U
2-Nitroaniline	--	2.6 U	22 U	2 U	1.9 U
3-Nitroaniline	--	2.6 U	22 U	2 U	1.9 U
4-Nitroaniline	--	2.6 U	22 U	2 U	1.9 U
Nitrobenzene	140	0.54 U	4.4 U	0.41 U	0.4 U
2-Nitrophenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4-Nitrophenol	--	2.6 U	22 U	2 U	1.9 U
N-Nitrosodimethylamine	--	0.54 U	4.4 U	0.41 U	0.4 U
N-Nitrosodi-n-propylamine	--	0.54 U	4.4 U	0.41 U	0.4 U
N-Nitrosodiphenylamine	--	0.54 U	4.4 U	0.41 U	0.4 U
2, 2'-oxybis(1-Chloropropane)	--	0.54 U	4.4 U	0.41 U	0.4 U
Pentachlorophenol	--	2.6 U	22 U	2 U	1.9 U
Phenol	--	0.54 U	4.4 U	0.41 U	0.4 U
Pyridine	--	0.54 U	4.4 U	0.41 U	0.4 U
1,2,4-Trichlorobenzene	3,200	0.54 U	4.4 U	0.41 U	0.4 U
2,4,5-Trichlorophenol	--	1.1 U	8.9 U	0.81 U	0.79 U
2,4,6-Trichlorophenol	390	0.54 U	4.4 U	0.41 U	0.4 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.

Table 8 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Industrial/Commercial Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		CF03-002 6-7	CF04C-001 7-8	CF04D-001 3-4	CF05C-001 9-10
PAHs (mg/kg)					
Acenaphthene	--	7.4	0.37	0.15	0.03 U
Acenaphthylene	--	4.2	1.2	0.16	0.03 U
Anthracene	--	15	0.61	0.66	0.03 U
Benzo(a)anthracene	--	39	5	2	0.03 U
Benzo(b)fluoranthene	--	36	4.4	2.2	0.03 U
Benzo(k)fluoranthene	--	9	1.3	0.65	0.03 U
Benzo(g,h,i)perylene	--	16	0.8	1.2	0.03 U
Benzo(a)pyrene	--	33	0.37	2	0.03 U
Chrysene	--	27	4.3	1.4	0.03 U
Dibenzo(a,h)anthracene	--	3.4	0.34 U	0.23	0.03 U
Fluoranthene	--	97	8	3.6	0.03 U
Fluorene	--	11	0.91	0.31	0.03 U
Indeno(1,2,3-cd)pyrene	--	13	0.8	0.99	0.03 U
Naphthalene	270	5.7	1200	0.3	0.03 U
Phenanthrene	--	55	7.2	3.9	0.03 U
Pyrene	--	110	11	4.1	0.03 U
Priority Pollutant Metals and Total Cyanide (mg/kg)					
Antimony	--	5.7	180	3.5 U	3.5 U
Arsenic	1,200	12	43	10	11
Beryllium	2,100	0.78 U	0.63 U	0.65	0.59 U
Cadmium	2,800	0.85	0.63 U	0.58 U	0.59 U
Chromium	420	23	11	14	19
Copper	--	380	570	67	34
Lead	--	7200	1200	180	24
Mercury	540,000	0.79	0.058	0.54	0.029 U
Nickel	21,000	14	12	25	38
Selenium	--	1.8	1.4	1.2 U	1.2 U
Silver	--	1.6 U	1.3 U	1.2 U	1.2 U
Thallium	--	1.6 U	1.3 U	1.2 U	1.2 U
Zinc	--	330	91	84	46
Total Cyanide	--	0.42 U	66	0.31 U	0.3 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) Shaded value exceeds Tier 1 remediation objectives.

Table 8 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Industrial/Commercial Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		CF06B-001 9-10	CF06E-001 5-6	CF07-001 8-9	North Portion Average
TCL Volatiles (mg/kg)					
Acetone	100,000	1.8 U	2.3 U	1.3 U	1.15
Benzene	1.6	0.37 U	0.46 U	0.26 U	0.67
Bromodichloromethane	3,000	0.37 U	0.46 U	0.26 U	0.23
Bromoform	100	0.37 U	0.46 U	0.26 U	0.23
Bromomethane	15	0.73 U	0.93 U	0.52 U	0.46
2-Butanone	--	0.73 U	0.93 U	0.52 U	0.46
Carbon Disulfide	720	0.37 U	0.46 U	0.26 U	0.67
Carbon Tetrachloride	0.64	0.37 U	0.46 U	0.26 U	0.23
Chlorobenzene	210	0.37 U	0.46 U	0.26 U	0.23
Chloroethane	--	0.73 U	0.93 U	0.52 U	0.46
Chloroform	0.54	0.37 U	0.46 U	0.26 U	0.23
Chloromethane	--	0.37 U	0.93 U	0.52 U	0.39
Dibromochloromethane	1,300	0.37 U	0.46 U	0.26 U	0.23
1,1-Dichloroethane	1,700	0.37 U	0.46 U	0.26 U	0.23
1,2-Dichloroethane	0.70	0.37 U	0.46 U	0.26 U	0.23
1,1-Dichloroethene	1,500	0.37 U	0.46 U	0.26 U	0.23
cis-1,2-Dichloroethene	1,200	0.37 U	0.46 U	0.26 U	0.23
trans-1,2-Dichloroethene	3,100	0.37 U	0.46 U	0.26 U	0.23
1,2-Dichloropropane	23	0.37 U	0.46 U	0.26 U	0.23
cis-1,3-Dichloropropene	2.1	0.37 U	0.46 U	0.26 U	0.23
trans-1,3-Dichloropropene	2.1	0.37 U	0.46 U	0.26 U	0.23
Ethylbenzene	400	15	0.64	6.9	51.23
2-Hexanone	--	0.73 U	0.93 U	0.52 U	0.46
4-Methyl-2-Pentanone	--	0.73 U	0.93 U	0.52 U	0.46
Methylene Chloride	24	0.73 U	0.93 U	0.52 U	0.46
Methyl tert-butyl ether	8,800	0.37 U	0.46 U	0.26 U	0.23
Styrene	1,500	0.37 U	0.46 U	0.26 U	0.23
1,1,2,2-Tetrachloroethane	--	0.37 U	0.46 U	0.26 U	0.23
Tetrachloroethene	20	0.37 U	0.46 U	0.26 U	0.24
Toluene	650	0.38	1.4	0.26 U	0.69
1,1,1-Trichloroethane	1,200	0.37 U	0.46 U	0.26 U	0.29
1,1,2-Trichloroethane	1,800	0.37 U	0.46 U	0.26 U	0.23
Trichloroethene	8.9	0.37 U	0.46 U	0.26 U	0.23
Vinyl Chloride	1.1	0.37 U	0.46 U	0.26 U	0.23
m,p-Xylene	320	4.5	9.9	0.26 U	111.34
o-Xylene	320	4.2	6.3	1.5	40.73
Xylenes, Total	320	8.7	16	1.6	151.76

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.

Table 8 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Industrial/Commercial Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		CF06B-001 9-10	CF06E-001 5-6	CF07-001 8-9	North Portion Average
TCL Semivolatiles (mg/kg)					
Aniline	--	0.45 U	0.44 U	0.38 U	0.87
Benzidine	--	0.45 U	0.44 U	0.38 U	0.87
Benzoic acid	--	2.2 U	6.2	1.8 U	4.74
Benzyl alcohol	--	0.45 U	0.44 U	0.38 U	0.87
Bis(2-chloroethoxy)methane	--	0.45 U	0.44 U	0.38 U	0.87
Bis(2-chloroethyl)ether	0.47	0.45 U	0.44 U	0.38 U	0.87
Bis(2-ethylhexyl)phthalate	31,000	0.45 U	0.44 U	0.38 U	0.87
4-Bromophenyl phenyl ether	--	0.45 U	0.44 U	0.38 U	0.87
Butyl benzyl phthalate	930	0.45 U	0.44 U	0.38 U	0.87
Carbazole	--	0.45 U	0.44 U	0.38 U	1.05
4-Chloro-3-methylphenol	--	0.45 U	0.44 U	0.38 U	0.87
4-Chloroaniline	--	0.45 U	0.44 U	0.38 U	0.87
2-Chloronaphthalene	--	0.45 U	0.44 U	0.38 U	0.87
2-Chlorophenol	53,000	0.45 U	0.44 U	0.38 U	0.87
4-Chlorophenyl phenyl ether	--	0.45 U	0.44 U	0.38 U	0.87
Dibenzofuran	--	0.45 U	0.44 U	0.38 U	1.31
1,2-Dichlorobenzene	560	0.45 U	0.44 U	0.38 U	0.87
1,3-Dichlorobenzene	--	0.45 U	0.44 U	0.38 U	0.87
1,4-Dichlorobenzene	17,000	0.45 U	0.44 U	0.38 U	0.87
3,3´-Dichlorobenzidine	--	0.9 U	0.87 U	0.75 U	1.75
Diethyl phthalate	2,000	0.45 U	0.44 U	0.38 U	0.87
Dimethyl phthalate	--	0.45 U	0.44 U	0.38 U	0.87
Di-n-butyl phthalate	2,300	0.45 U	0.44 U	0.38 U	0.87
2,4-Dichlorophenol	--	0.45 U	0.44 U	0.38 U	0.87
2,4-Dimethylphenol	--	0.45 U	0.44 U	0.38 U	0.87
4,6-Dinitro-2-methylphenol	--	2.2 U	2.1 U	1.8 U	4.29
2,4-Dinitrophenol	--	2.2 U	2.1 U	1.8 U	4.29
2,4-Dinitrotoluene	--	0.45 U	0.44 U	0.38 U	0.87
2,6-Dinitrotoluene	--	0.45 U	0.44 U	0.38 U	0.87
Di-n-octyl phthalate	10,000	0.45 U	0.44 U	0.38 U	0.87
Hexachlorobenzene	1.8	0.45 U	0.44 U	0.38 U	0.87
Hexachlorobutadiene	--	0.45 U	0.44 U	0.38 U	0.87
Hexachlorocyclopentadiene	16	0.45 U	0.44 U	0.38 U	0.87
Hexachloroethane	--	0.45 U	0.44 U	0.38 U	0.87
Isophorone	4,600	0.45 U	0.44 U	0.38 U	0.87
2-Methylnaphthalene	--	4.7	2.6	0.38 U	8.40
2-Methylphenol	--	0.45 U	0.44 U	0.38 U	0.87
4-Methylphenol	--	0.45 U	0.44 U	0.38 U	1.01
2-Nitroaniline	--	2.2 U	2.1 U	1.8 U	4.29
3-Nitroaniline	--	2.2 U	2.1 U	1.8 U	4.29
4-Nitroaniline	--	2.2 U	2.1 U	1.8 U	4.29
Nitrobenzene	140	0.45 U	0.44 U	0.38 U	0.87
2-Nitrophenol	--	0.45 U	0.44 U	0.38 U	0.87
4-Nitrophenol	--	2.2 U	2.1 U	1.8 U	4.29
N-Nitrosodimethylamine	--	0.45 U	0.44 U	0.38 U	0.87
N-Nitrosodi-n-propylamine	--	0.45 U	0.44 U	0.38 U	0.87
N-Nitrosodiphenylamine	--	0.45 U	0.44 U	0.38 U	0.87
2, 2'-oxybis(1-Chloropropane)	--	0.45 U	0.44 U	0.38 U	0.87
Pentachlorophenol	--	2.2 U	2.1 U	1.8 U	4.29
Phenol	--	0.45 U	0.44 U	0.38 U	0.87
Pyridine	--	0.45 U	0.44 U	0.38 U	0.87
1,2,4-Trichlorobenzene	3,200	0.45 U	0.44 U	0.38 U	0.87
2,4,5-Trichlorophenol	--	0.9 U	0.87 U	0.75 U	1.75
2,4,6-Trichlorophenol	390	0.45 U	0.44 U	0.38 U	0.87

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.

Table 8 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Industrial/Commercial Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		CF06B-001 9-10	CF06E-001 5-6	CF07-001 8-9	North Portion Average
PAHs (mg/kg)					
Acenaphthene	--	0.13	0.033 U	0.042	1.00
Acenaphthylene	--	0.3	0.092	0.028 U	0.70
Anthracene	--	0.097	0.055	0.028	2.15
Benzo(a)anthracene	--	0.15	0.16	0.099	5.97
Benzo(b)fluoranthene	--	0.085	0.45	0.11	5.74
Benzo(k)fluoranthene	--	0.034 U	0.063	0.037	1.59
Benzo(g,h,i)perylene	--	0.034 U	0.1	0.046	2.58
Benzo(a)pyrene	--	0.049	0.18	0.079	4.87
Chrysene	--	0.1	0.29	0.07	4.33
Dibenzo(a,h)anthracene	--	0.034 U	0.033 U	0.028 U	0.57
Fluoranthene	--	0.3	0.22	0.18	13.69
Fluorene	--	0.32	0.033 U	0.028 U	1.53
Indeno(1,2,3-cd)pyrene	--	0.034 U	0.091	0.038	2.08
Naphthalene	270	45	11	3.9	140.73
Phenanthrene	--	0.58	0.22	0.063	8.37
Pyrene	--	0.32	0.46	0.18	15.81
Priority Pollutant Metals and Total Cyanide (mg/kg)					
Antimony	--	3.8 U	3.9 U	3.2 U	24.22
Arsenic	1,200	5.2	16	5.3	15.41
Beryllium	2,100	0.63 U	1.5	0.54 U	0.73
Cadmium	2,800	0.63 U	1.5	0.54 U	1.05
Chromium	420	16	20	10	18.56
Copper	--	19	140	16	594.44
Lead	--	16	490	21	1144.56
Mercury	540,000	0.033 U	0.49	0.044	0.32
Nickel	21,000	14	34	15	21.67
Selenium	--	1.3 U	1.6	1.1 U	1.39
Silver	--	1.3 U	1.3 U	1.1 U	1.27
Thallium	--	1.3 U	1.3 U	1.1 U	1.27
Zinc	--	74	370	28	205.56
Total Cyanide	--	0.98	2.5	0.29 U	7.94

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.

Table 9
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Construction Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		SP51B-001 7-7.5	SP51C-001 7-7.5	CF02-001 6-7	CF03-001 7-8
TCL Volatiles (mg/kg)					
Acetone	100,000	2.6 U	2.3 U	0.034 U	0.026 U
Benzene	2.2	2	0.92	0.0068 U	0.0052 U
Bromodichloromethane	3,000	0.52 U	0.46 U	0.0068 U	0.0052 U
Bromoform	140	0.52 U	0.46 U	0.0068 U	0.0052 U
Bromomethane	3.9	1 U	0.92 U	0.014 U	0.01 U
2-Butanone	--	1 U	0.92 U	0.014 U	0.01 U
Carbon Disulfide	9.0	0.52 U	1.9	0.0068 U	0.0052 U
Carbon Tetrachloride	0.90	0.52 U	0.46 U	0.0068 U	0.0052 U
Chlorobenzene	1.3	0.52 U	0.46 U	0.0068 U	0.0052 U
Chloroethane	--	1 U	0.92 U	0.014 U	0.01 U
Chloroform	0.76	0.52 U	0.46 U	0.0068 U	0.0052 U
Chloromethane	--	1 U	0.92 U	0.0068 U	0.0052 U
Dibromochloromethane	1,300	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1-Dichloroethane	130	0.52 U	0.46 U	0.0068 U	0.0052 U
1,2-Dichloroethane	0.99	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1-Dichloroethene	300	0.52 U	0.46 U	0.0068 U	0.0052 U
cis-1,2-Dichloroethene	1,200	0.52 U	0.46 U	0.0068 U	0.0052 U
trans-1,2-Dichloroethene	3,100	0.52 U	0.46 U	0.0068 U	0.0052 U
1,2-Dichloropropane	0.50	0.52 U	0.46 U	0.0068 U	0.0052 U
cis-1,3-Dichloropropene	0.39	0.52 U	0.46 U	0.0068 U	0.0052 U
trans-1,3-Dichloropropene	0.39	0.52 U	0.46 U	0.0068 U	0.0052 U
Ethylbenzene	58	26	450	0.0068 U	0.0052 U
2-Hexanone	--	1 U	0.92 U	0.014 U	0.01 U
4-Methyl-2-Pentanone	--	1 U	0.92 U	0.014 U	0.01 U
Methylene Chloride	34	1 U	0.92 U	0.014 U	0.01 U
Methyl tert-butyl ether	140	0.52 U	0.46 U	0.0068 U	0.0052 U
Styrene	430	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1,2,2-Tetrachloroethane	--	0.52 U	0.46 U	0.0068 U	0.0052 U
Tetrachloroethene	28	0.52 U	0.46 U	0.0068 U	0.0052 U
Toluene	42	0.52 U	1.7	0.0068 U	0.0052 U
1,1,1-Trichloroethane	1,200	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1,2-Trichloroethane	1,800	0.52 U	0.46 U	0.0068 U	0.0052 U
Trichloroethene	12	0.52 U	0.46 U	0.0068 U	0.0052 U
Vinyl Chloride	1.1	0.52 U	0.46 U	0.0068 U	0.0052 U
m,p-Xylene	320	60	920	0.0068 U	0.0052 U
o-Xylene	320	13	63	0.0068 U	0.0052 U
Xylenes, Total	320	73	980	0.014 U	0.01 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) Shaded value exceeds Tier 1 remediation objectives.

Table 9 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Construction Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		SP51B-001 7-7.5	SP51C-001 7-7.5	CF02-001 6-7	CF03-001 7-8
TCL Semivolatiles (mg/kg)					
Aniline	--	NA	NA	0.44 U	0.39 U
Benzidine	--	NA	NA	0.44 U	0.39 U
Benzoic acid	--	NA	NA	2.1 U	1.9 U
Benzyl alcohol	--	NA	NA	0.44 U	0.39 U
Bis(2-chloroethoxy)methane	--	NA	NA	0.44 U	0.39 U
Bis(2-chloroethyl)ether	0.66	NA	NA	0.44 U	0.39 U
Bis(2-ethylhexyl)phthalate	31,000	NA	NA	0.44 U	0.39 U
4-Bromophenyl phenyl ether	--	NA	NA	0.44 U	0.39 U
Butyl benzyl phthalate	930	NA	NA	0.44 U	0.39 U
Carbazole	--	NA	NA	0.44 U	0.39 U
4-Chloro-3-methylphenol	--	NA	NA	0.44 U	0.39 U
4-Chloroaniline	--	NA	NA	0.44 U	0.39 U
2-Chloronaphthalene	--	NA	NA	0.44 U	0.39 U
2-Chlorophenol	53,000	NA	NA	0.44 U	0.39 U
4-Chlorophenyl phenyl ether	--	NA	NA	0.44 U	0.39 U
Dibenzofuran	--	NA	NA	0.44 U	0.39 U
1,2-Dichlorobenzene	310	NA	NA	0.44 U	0.39 U
1,3-Dichlorobenzene	--	NA	NA	0.44 U	0.39 U
1,4-Dichlorobenzene	340	NA	NA	0.44 U	0.39 U
3,3´-Dichlorobenzidine	--	NA	NA	0.89 U	0.78 U
Diethyl phthalate	2,000	NA	NA	0.44 U	0.39 U
Dimethyl phthalate	--	NA	NA	0.44 U	0.39 U
Di-n-butyl phthalate	2,300	NA	NA	0.44 U	0.39 U
2,4-Dichlorophenol	--	NA	NA	0.44 U	0.39 U
2,4-Dimethylphenol	--	NA	NA	0.44 U	0.39 U
4,6-Dinitro-2-methylphenol	--	NA	NA	2.1 U	1.9 U
2,4-Dinitrophenol	--	NA	NA	2.1 U	1.9 U
2,4-Dinitrotoluene	--	NA	NA	0.44 U	0.39 U
2,6-Dinitrotoluene	--	NA	NA	0.44 U	0.39 U
Di-n-octyl phthalate	10,000	NA	NA	0.44 U	0.39 U
Hexachlorobenzene	2.6	NA	NA	0.44 U	0.39 U
Hexachlorobutadiene	--	NA	NA	0.44 U	0.39 U
Hexachlorocyclopentadiene	1.1	NA	NA	0.44 U	0.39 U
Hexachloroethane	--	NA	NA	0.44 U	0.39 U
Isophorone	4,600	NA	NA	0.44 U	0.39 U
2-Methylnaphthalene	--	NA	NA	0.44 U	0.39 U
2-Methylphenol	--	NA	NA	0.44 U	0.39 U
4-Methylphenol	--	NA	NA	0.44 U	0.39 U
2-Nitroaniline	--	NA	NA	2.1 U	1.9 U
3-Nitroaniline	--	NA	NA	2.1 U	1.9 U
4-Nitroaniline	--	NA	NA	2.1 U	1.9 U
Nitrobenzene	9.4	NA	NA	0.44 U	0.39 U
2-Nitrophenol	--	NA	NA	0.44 U	0.39 U
4-Nitrophenol	--	NA	NA	2.1 U	1.9 U
N-Nitrosodimethylamine	--	NA	NA	0.44 U	0.39 U
N-Nitrosodi-n-propylamine	--	NA	NA	0.44 U	0.39 U
N-Nitrosodiphenylamine	--	NA	NA	0.44 U	0.39 U
2, 2'-oxybis(1-Chloropropane)	--	NA	NA	0.44 U	0.39 U
Pentachlorophenol	--	NA	NA	2.1 U	1.9 U
Phenol	--	NA	NA	0.44 U	0.39 U
Pyridine	--	NA	NA	0.44 U	0.39 U
1,2,4-Trichlorobenzene	920	NA	NA	0.44 U	0.39 U
2,4,5-Trichlorophenol	--	NA	NA	0.89 U	0.78 U
2,4,6-Trichlorophenol	540	NA	NA	0.44 U	0.39 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) NA - Not Anlayzed

Table 9 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Construction Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		SP51B-001 7-7.5	SP51C-001 7-7.5	CF02-001 6-7	CF03-001 7-8
PAHs (mg/kg)					
Acenaphthene	--	NA	NA	0.69	0.13
Acenaphthylene	--	NA	NA	0.22	0.11
Anthracene	--	NA	NA	2.6	0.27
Benzo(a)anthracene	--	NA	NA	6.4	0.9
Benzo(b)fluoranthene	--	NA	NA	7.7	0.68
Benzo(k)fluoranthene	--	NA	NA	2.5	0.7
Benzo(g,h,i)perylene	--	NA	NA	4.4	0.58
Benzo(a)pyrene	--	NA	NA	7	1.1
Chrysene	--	NA	NA	4.9	0.92
Dibenzo(a,h)anthracene	--	NA	NA	1	0.073
Fluoranthene	--	NA	NA	12	1.9
Fluorene	--	NA	NA	0.9	0.2
Indeno(1,2,3-cd)pyrene	--	NA	NA	3.3	0.42
Naphthalene	1.8	NA	NA	0.54	0.077
Phenanthrene	--	NA	NA	7.5	0.88
Pyrene	--	NA	NA	14	2.2
Priority Pollutant Metals and Total Cyanide (mg/kg)					
Antimony	--	NA	NA	11	3.4 U
Arsenic	25,000	NA	NA	31	5.2
Beryllium	44,000	NA	NA	0.71	0.57 U
Cadmium	59,000	NA	NA	3.6	0.57 U
Chromium	690	NA	NA	39	15
Copper	--	NA	NA	4100	24
Lead	--	NA	NA	890	280
Mercury	52,000	NA	NA	0.83	0.029 U
Nickel	440,000	NA	NA	19	24
Selenium	--	NA	NA	1.8	1.1 U
Silver	--	NA	NA	1.3 U	1.1 U
Thallium	--	NA	NA	1.3 U	1.1 U
Zinc	--	NA	NA	770	57
Total Cyanide	--	NA	NA	0.34 U	0.3 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) NA - Not Anlayzed

Table 9 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Construction Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		CF03-002 6-7	CF04C-001 7-8	CF04D-001 3-4	CF05C-001 9-10
TCL Volatiles (mg/kg)					
Acetone	100,000	0.056 U	2.2 U	0.03 U	0.025 U
Benzene	2.2	0.011 U	0.58	2.6	0.005 U
Bromodichloromethane	3,000	0.011 U	0.45 U	0.0059 U	0.005 U
Bromoform	140	0.011 U	0.45 U	0.0059 U	0.005 U
Bromomethane	3.9	0.022 U	0.89 U	0.012 U	0.01 U
2-Butanone	--	0.022 U	0.89 U	0.012 U	0.01 U
Carbon Disulfide	9.0	0.011 U	3.8	0.0059 U	0.005 U
Carbon Tetrachloride	0.90	0.011 U	0.45 U	0.0059 U	0.005 U
Chlorobenzene	1.3	0.011 U	0.45 U	0.0059 U	0.005 U
Chloroethane	--	0.022 U	0.89 U	0.012 U	0.01 U
Chloroform	0.76	0.011 U	0.45 U	0.0059 U	0.005 U
Chloromethane	--	0.011 U	0.45 U	0.0059 U	0.005 U
Dibromochloromethane	1,300	0.011 U	0.45 U	0.0059 U	0.005 U
1,1-Dichloroethane	130	0.011 U	0.45 U	0.0059 U	0.005 U
1,2-Dichloroethane	0.99	0.011 U	0.45 U	0.0059 U	0.005 U
1,1-Dichloroethene	300	0.011 U	0.45 U	0.0059 U	0.005 U
cis-1,2-Dichloroethene	1,200	0.011 U	0.45 U	0.0059 U	0.005 U
trans-1,2-Dichloroethene	3,100	0.011 U	0.45 U	0.0059 U	0.005 U
1,2-Dichloropropane	0.50	0.011 U	0.45 U	0.0059 U	0.005 U
cis-1,3-Dichloropropene	0.39	0.011 U	0.45 U	0.0059 U	0.005 U
trans-1,3-Dichloropropene	0.39	0.011 U	0.45 U	0.0059 U	0.005 U
Ethylbenzene	58	0.011 U	65	0.0059 U	0.005 U
2-Hexanone	--	0.022 U	0.89 U	0.012 U	0.01 U
4-Methyl-2-Pentanone	--	0.022 U	0.89 U	0.012 U	0.01 U
Methylene Chloride	34	0.022 U	0.89 U	0.012 U	0.01 U
Methyl tert-butyl ether	140	0.011 U	0.45 U	0.0059 U	0.005 U
Styrene	430	0.011 U	0.45 U	0.0059 U	0.005 U
1,1,2,2-Tetrachloroethane	--	0.011 U	0.45 U	0.0059 U	0.005 U
Tetrachloroethene	28	0.011 U	0.45 U	0.043	0.005 U
Toluene	42	0.011 U	3.3	0.0059 U	0.005 U
1,1,1-Trichloroethane	1,200	0.011 U	0.65	0.41	0.005 U
1,1,2-Trichloroethane	1,800	0.011 U	0.45 U	0.0059 U	0.005 U
Trichloroethene	12	0.011 U	0.45 U	0.0059 U	0.005 U
Vinyl Chloride	1.1	0.011 U	0.45 U	0.0059 U	0.005 U
m,p-Xylene	320	0.011 U	230	0.0058 U	0.005 U
o-Xylene	320	0.011 U	360	0.0058 U	0.005 U
Xylenes, Total	320	0.022 U	590	0.012 U	0.01 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) Shaded value exceeds Tier 1 remediation objectives.

Table 9 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Construction Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		CF03-002 6-7	CF04C-001 7-8	CF04D-001 3-4	CF05C-001 9-10
TCL Semivolatiles (mg/kg)					
Aniline	--	0.54 U	4.4 U	0.41 U	0.4 U
Benzidine	--	0.54 U	4.4 U	0.41 U	0.4 U
Benzoic acid	--	2.6 U	22 U	2 U	1.9 U
Benzyl alcohol	--	0.54 U	4.4 U	0.41 U	0.4 U
Bis(2-chloroethoxy)methane	--	0.54 U	4.4 U	0.41 U	0.4 U
Bis(2-chloroethyl)ether	0.66	0.54 U	4.4 U	0.41 U	0.4 U
Bis(2-ethylhexyl)phthalate	31,000	0.54 U	4.4 U	0.41 U	0.4 U
4-Bromophenyl phenyl ether	--	0.54 U	4.4 U	0.41 U	0.4 U
Butyl benzyl phthalate	930	0.54 U	4.4 U	0.41 U	0.4 U
Carbazole	--	2.1	4.4 U	0.41 U	0.4 U
4-Chloro-3-methylphenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4-Chloroaniline	--	0.54 U	4.4 U	0.41 U	0.4 U
2-Chloronaphthalene	--	0.54 U	4.4 U	0.41 U	0.4 U
2-Chlorophenol	53,000	0.54 U	4.4 U	0.41 U	0.4 U
4-Chlorophenyl phenyl ether	--	0.54 U	4.4 U	0.41 U	0.4 U
Dibenzofuran	--	4.5	4.4 U	0.41 U	0.4 U
1,2-Dichlorobenzene	310	0.54 U	4.4 U	0.41 U	0.4 U
1,3-Dichlorobenzene	--	0.54 U	4.4 U	0.41 U	0.4 U
1,4-Dichlorobenzene	340	0.54 U	4.4 U	0.41 U	0.4 U
3,3´-Dichlorobenzidine	--	1.1 U	8.9 U	0.81 U	0.79 U
Diethyl phthalate	2,000	0.54 U	4.4 U	0.41 U	0.4 U
Dimethyl phthalate	--	0.54 U	4.4 U	0.41 U	0.4 U
Di-n-butyl phthalate	2,300	0.54 U	4.4 U	0.41 U	0.4 U
2,4-Dichlorophenol	--	0.54 U	4.4 U	0.41 U	0.4 U
2,4-Dimethylphenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4,6-Dinitro-2-methylphenol	--	2.6 U	22 U	2 U	1.9 U
2,4-Dinitrophenol	--	2.6 U	22 U	2 U	1.9 U
2,4-Dinitrotoluene	--	0.54 U	4.4 U	0.41 U	0.4 U
2,6-Dinitrotoluene	--	0.54 U	4.4 U	0.41 U	0.4 U
Di-n-octyl phthalate	10,000	0.54 U	4.4 U	0.41 U	0.4 U
Hexachlorobenzene	2.6	0.54 U	4.4 U	0.41 U	0.4 U
Hexachlorobutadiene	--	0.54 U	4.4 U	0.41 U	0.4 U
Hexachlorocyclopentadiene	1.1	0.54 U	4.4 U	0.41 U	0.4 U
Hexachloroethane	--	0.54 U	4.4 U	0.41 U	0.4 U
Isophorone	4,600	0.54 U	4.4 U	0.41 U	0.4 U
2-Methylnaphthalene	--	2.3	64	0.41 U	0.4 U
2-Methylphenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4-Methylphenol	--	1.8	4.4 U	0.41 U	0.4 U
2-Nitroaniline	--	2.6 U	22 U	2 U	1.9 U
3-Nitroaniline	--	2.6 U	22 U	2 U	1.9 U
4-Nitroaniline	--	2.6 U	22 U	2 U	1.9 U
Nitrobenzene	9.4	0.54 U	4.4 U	0.41 U	0.4 U
2-Nitrophenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4-Nitrophenol	--	2.6 U	22 U	2 U	1.9 U
N-Nitrosodimethylamine	--	0.54 U	4.4 U	0.41 U	0.4 U
N-Nitrosodi-n-propylamine	--	0.54 U	4.4 U	0.41 U	0.4 U
N-Nitrosodiphenylamine	--	0.54 U	4.4 U	0.41 U	0.4 U
2, 2'-oxybis(1-Chloropropane)	--	0.54 U	4.4 U	0.41 U	0.4 U
Pentachlorophenol	--	2.6 U	22 U	2 U	1.9 U
Phenol	--	0.54 U	4.4 U	0.41 U	0.4 U
Pyridine	--	0.54 U	4.4 U	0.41 U	0.4 U
1,2,4-Trichlorobenzene	920	0.54 U	4.4 U	0.41 U	0.4 U
2,4,5-Trichlorophenol	--	1.1 U	8.9 U	0.81 U	0.79 U
2,4,6-Trichlorophenol	540	0.54 U	4.4 U	0.41 U	0.4 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.

Table 9 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Construction Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration			
		CF03-002 6-7	CF04C-001 7-8	CF04D-001 3-4	CF05C-001 9-10
PAHs (mg/kg)					
Acenaphthene	--	7.4	0.37	0.15	0.03 U
Acenaphthylene	--	4.2	1.2	0.16	0.03 U
Anthracene	--	15	0.61	0.66	0.03 U
Benzo(a)anthracene	--	39	5	2	0.03 U
Benzo(b)fluoranthene	--	36	4.4	2.2	0.03 U
Benzo(k)fluoranthene	--	9	1.3	0.65	0.03 U
Benzo(g,h,i)perylene	--	16	0.8	1.2	0.03 U
Benzo(a)pyrene	--	33	0.37	2	0.03 U
Chrysene	--	27	4.3	1.4	0.03 U
Dibenzo(a,h)anthracene	--	3.4	0.34 U	0.23	0.03 U
Fluoranthene	--	97	8	3.6	0.03 U
Fluorene	--	11	0.91	0.31	0.03 U
Indeno(1,2,3-cd)pyrene	--	13	0.8	0.99	0.03 U
Naphthalene	1.8	5.7	1200	0.3	0.03 U
Phenanthrene	--	55	7.2	3.9	0.03 U
Pyrene	--	110	11	4.1	0.03 U
Priority Pollutant Metals and Total Cyanide (mg/kg)					
Antimony	--	5.7	180	3.5 U	3.5 U
Arsenic	25,000	12	43	10	11
Beryllium	44,000	0.78 U	0.63 U	0.65	0.59 U
Cadmium	59,000	0.85	0.63 U	0.58 U	0.59 U
Chromium	690	23	11	14	19
Copper	--	380	570	67	34
Lead	--	7200	1200	180	24
Mercury	52,000	0.79	0.058	0.54	0.029 U
Nickel	440,000	14	12	25	38
Selenium	--	1.8	1.4	1.2 U	1.2 U
Silver	--	1.6 U	1.3 U	1.2 U	1.2 U
Thallium	--	1.6 U	1.3 U	1.2 U	1.2 U
Zinc	--	330	91	84	46
Total Cyanide	--	0.42 U	66	0.31 U	0.3 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) Shaded value exceeds Tier 1 remediation objectives.

Table 9 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Construction Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration		
		CF06B-001 9-10	CF06E-001 5-6	CF07-001 8-9
TCL Volatiles (mg/kg)				
Acetone	100,000	1.8 U	2.3 U	1.3 U
Benzene	2.2	0.37 U	0.46 U	0.26 U
Bromodichloromethane	3,000	0.37 U	0.46 U	0.26 U
Bromoform	140	0.37 U	0.46 U	0.26 U
Bromomethane	3.9	0.73 U	0.93 U	0.52 U
2-Butanone	--	0.73 U	0.93 U	0.52 U
Carbon Disulfide	9.0	0.37 U	0.46 U	0.26 U
Carbon Tetrachloride	0.90	0.37 U	0.46 U	0.26 U
Chlorobenzene	1.3	0.37 U	0.46 U	0.26 U
Chloroethane	--	0.73 U	0.93 U	0.52 U
Chloroform	0.76	0.37 U	0.46 U	0.26 U
Chloromethane	--	0.37 U	0.46 U	0.26 U
Dibromochloromethane	1,300	0.37 U	0.46 U	0.26 U
1,1-Dichloroethane	130	0.37 U	0.46 U	0.26 U
1,2-Dichloroethane	0.99	0.37 U	0.46 U	0.26 U
1,1-Dichloroethene	300	0.37 U	0.46 U	0.26 U
cis-1,2-Dichloroethene	1,200	0.37 U	0.46 U	0.26 U
trans-1,2-Dichloroethene	3,100	0.37 U	0.46 U	0.26 U
1,2-Dichloropropane	0.50	0.37 U	0.46 U	0.26 U
cis-1,3-Dichloropropene	0.39	0.37 U	0.46 U	0.26 U
trans-1,3-Dichloropropene	0.39	0.37 U	0.46 U	0.26 U
Ethylbenzene	58	15	0.64	6.9
2-Hexanone	--	0.73 U	0.93 U	0.52 U
4-Methyl-2-Pentanone	--	0.73 U	0.93 U	0.52 U
Methylene Chloride	34	0.73 U	0.93 U	0.52 U
Methyl tert-butyl ether	140	0.37 U	0.46 U	0.26 U
Styrene	430	0.37 U	0.46 U	0.26 U
1,1,2,2-Tetrachloroethane	--	0.37 U	0.46 U	0.26 U
Tetrachloroethene	28	0.37 U	0.46 U	0.26 U
Toluene	42	0.38	1.4	0.26 U
1,1,1-Trichloroethane	1,200	0.37 U	0.46 U	0.26 U
1,1,2-Trichloroethane	1,800	0.37 U	0.46 U	0.26 U
Trichloroethene	12	0.37 U	0.46 U	0.26 U
Vinyl Chloride	1.1	0.37 U	0.46 U	0.26 U
m,p-Xylene	320	4.5	9.9	0.26 U
o-Xylene	320	4.2	6.3	1.5
Xylenes, Total	320	8.7	16	1.6

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.

Table 9 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Construction Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration		
		CF06B-001 9-10	CF06E-001 5-6	CF07-001 8-9
TCL Semivolatiles (mg/kg)				
Aniline	--	0.45 U	0.44 U	0.38 U
Benzidine	--	0.45 U	0.44 U	0.38 U
Benzoic acid	--	2.2 U	6.2	1.8 U
Benzyl alcohol	--	0.45 U	0.44 U	0.38 U
Bis(2-chloroethoxy)methane	--	0.45 U	0.44 U	0.38 U
Bis(2-chloroethyl)ether	0.66	0.45 U	0.44 U	0.38 U
Bis(2-ethylhexyl)phthalate	31,000	0.45 U	0.44 U	0.38 U
4-Bromophenyl phenyl ether	--	0.45 U	0.44 U	0.38 U
Butyl benzyl phthalate	930	0.45 U	0.44 U	0.38 U
Carbazole	--	0.45 U	0.44 U	0.38 U
4-Chloro-3-methylphenol	--	0.45 U	0.44 U	0.38 U
4-Chloroaniline	--	0.45 U	0.44 U	0.38 U
2-Chloronaphthalene	--	0.45 U	0.44 U	0.38 U
2-Chlorophenol	53,000	0.45 U	0.44 U	0.38 U
4-Chlorophenyl phenyl ether	--	0.45 U	0.44 U	0.38 U
Dibenzofuran	--	0.45 U	0.44 U	0.38 U
1,2-Dichlorobenzene	310	0.45 U	0.44 U	0.38 U
1,3-Dichlorobenzene	--	0.45 U	0.44 U	0.38 U
1,4-Dichlorobenzene	340	0.45 U	0.44 U	0.38 U
3,3´-Dichlorobenzidine	--	0.9 U	0.87 U	0.75 U
Diethyl phthalate	2,000	0.45 U	0.44 U	0.38 U
Dimethyl phthalate	--	0.45 U	0.44 U	0.38 U
Di-n-butyl phthalate	2,300	0.45 U	0.44 U	0.38 U
2,4-Dichlorophenol	--	0.45 U	0.44 U	0.38 U
2,4-Dimethylphenol	--	0.45 U	0.44 U	0.38 U
4,6-Dinitro-2-methylphenol	--	2.2 U	2.1 U	1.8 U
2,4-Dinitrophenol	--	2.2 U	2.1 U	1.8 U
2,4-Dinitrotoluene	--	0.45 U	0.44 U	0.38 U
2,6-Dinitrotoluene	--	0.45 U	0.44 U	0.38 U
Di-n-octyl phthalate	10,000	0.45 U	0.44 U	0.38 U
Hexachlorobenzene	2.6	0.45 U	0.44 U	0.38 U
Hexachlorobutadiene	--	0.45 U	0.44 U	0.38 U
Hexachlorocyclopentadiene	1.1	0.45 U	0.44 U	0.38 U
Hexachloroethane	--	0.45 U	0.44 U	0.38 U
Isophorone	4,600	0.45 U	0.44 U	0.38 U
2-Methylnaphthalene	--	4.7	2.6	0.38 U
2-Methylphenol	--	0.45 U	0.44 U	0.38 U
4-Methylphenol	--	0.45 U	0.44 U	0.38 U
2-Nitroaniline	--	2.2 U	2.1 U	1.8 U
3-Nitroaniline	--	2.2 U	2.1 U	1.8 U
4-Nitroaniline	--	2.2 U	2.1 U	1.8 U
Nitrobenzene	9.4	0.45 U	0.44 U	0.38 U
2-Nitrophenol	--	0.45 U	0.44 U	0.38 U
4-Nitrophenol	--	2.2 U	2.1 U	1.8 U
N-Nitrosodimethylamine	--	0.45 U	0.44 U	0.38 U
N-Nitrosodi-n-propylamine	--	0.45 U	0.44 U	0.38 U
N-Nitrosodiphenylamine	--	0.45 U	0.44 U	0.38 U
2, 2'-oxybis(1-Chloropropane)	--	0.45 U	0.44 U	0.38 U
Pentachlorophenol	--	2.2 U	2.1 U	1.8 U
Phenol	--	0.45 U	0.44 U	0.38 U
Pyridine	--	0.45 U	0.44 U	0.38 U
1,2,4-Trichlorobenzene	920	0.45 U	0.44 U	0.38 U
2,4,5-Trichlorophenol	--	0.9 U	0.87 U	0.75 U
2,4,6-Trichlorophenol	540	0.45 U	0.44 U	0.38 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.

Table 9 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Construction Worker Inhalation Exposure Route Evaluation
Hawthorne Regulator Station

Compound/Analyte	Tier 1 Remediation Objectives	Sample Location and Depth (feet below ground surface)/Concentration		
		CF06B-001 9-10	CF06E-001 5-6	CF07-001 8-9
PAHs (mg/kg)				
Acenaphthene	--	0.13	0.033 U	0.042
Acenaphthylene	--	0.3	0.092	0.028 U
Anthracene	--	0.097	0.055	0.028
Benzo(a)anthracene	--	0.15	0.16	0.099
Benzo(b)fluoranthene	--	0.085	0.45	0.11
Benzo(k)fluoranthene	--	0.034 U	0.063	0.037
Benzo(g,h,i)perylene	--	0.034 U	0.1	0.046
Benzo(a)pyrene	--	0.049	0.18	0.079
Chrysene	--	0.1	0.29	0.07
Dibenzo(a,h)anthracene	--	0.034 U	0.033 U	0.028 U
Fluoranthene	--	0.3	0.22	0.18
Fluorene	--	0.32	0.033 U	0.028 U
Indeno(1,2,3-cd)pyrene	--	0.034 U	0.091	0.038
Naphthalene	1.8	45	11	3.9
Phenanthrene	--	0.58	0.22	0.063
Pyrene	--	0.32	0.46	0.18
Priority Pollutant Metals and Total Cyanide (mg/kg)				
Antimony	--	3.8 U	3.9 U	3.2 U
Arsenic	25,000	5.2	16	5.3
Beryllium	44,000	0.63 U	1.5	0.54 U
Cadmium	59,000	0.63 U	1.5	0.54 U
Chromium	690	16	20	10
Copper	--	19	140	16
Lead	--	16	490	21
Mercury	52,000	0.033 U	0.49	0.044
Nickel	440,000	14	34	15
Selenium	--	1.3 U	1.6	1.1 U
Silver	--	1.3 U	1.3 U	1.1 U
Thallium	--	1.3 U	1.3 U	1.1 U
Zinc	--	74	370	28
Total Cyanide	--	0.98	2.5	0.29 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) -- Toxicity criteria not available for exposure route.
(3) Shaded value exceeds Tier 1 remediation objectives.

Table 10
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Site-Specific Soil Saturation Evaluation
Hawthorne Regulator Station

Compound/Analyte	Csat	Sample Location and Depth (feet below ground surface)/Concentration			
		SP51B-001	SP51C-001	CF02-001	CF03-001
		7-7.5	7-7.5	6-7	7-8
TCL Volatiles (mg/kg)					
Acetone	100,000	2.6 U	2.3 U	0.034 U	0.026 U
Benzene	870	2	0.92	0.0068 U	0.0052 U
Bromodichloromethane	3,000	0.52 U	0.46 U	0.0068 U	0.0052 U
Bromoform	1,900	0.52 U	0.46 U	0.0068 U	0.0052 U
Bromomethane	3,200	1 U	0.92 U	0.014 U	0.01 U
2-Butanone	--	1 U	0.92 U	0.014 U	0.01 U
Carbon Disulfide	720	0.52 U	1.9	0.0068 U	0.0052 U
Carbon Tetrachloride	1,100	0.52 U	0.46 U	0.0068 U	0.0052 U
Chlorobenzene	680	0.52 U	0.46 U	0.0068 U	0.0052 U
Chloroethane	--	1 U	0.92 U	0.014 U	0.01 U
Chloroform	2,900	0.52 U	0.46 U	0.0068 U	0.0052 U
Chloromethane	--	1 U	0.92 U	0.0068 U	0.0052 U
Dibromochloromethane	1,300	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1-Dichloroethane	1,700	0.52 U	0.46 U	0.0068 U	0.0052 U
1,2-Dichloroethane	1,800	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1-Dichloroethene	1,500	0.52 U	0.46 U	0.0068 U	0.0052 U
cis-1,2-Dichloroethene	1,200	0.52 U	0.46 U	0.0068 U	0.0052 U
trans-1,2-Dichloroethene	3,100	0.52 U	0.46 U	0.0068 U	0.0052 U
1,2-Dichloropropane	1,100	0.52 U	0.46 U	0.0068 U	0.0052 U
cis-1,3-Dichloropropene	1,400	0.52 U	0.46 U	0.0068 U	0.0052 U
trans-1,3-Dichloropropene	1,400	0.52 U	0.46 U	0.0068 U	0.0052 U
Ethylbenzene	959*	26	450	0.0068 U	0.0052 U
2-Hexanone	--	1 U	0.92 U	0.014 U	0.01 U
4-Methyl-2-Pentanone	--	1 U	0.92 U	0.014 U	0.01 U
Methylene Chloride	2,400	1 U	0.92 U	0.014 U	0.01 U
Methyl tert-butyl ether	8,800	0.52 U	0.46 U	0.0068 U	0.0052 U
Styrene	1,500	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1,2,2-Tetrachloroethane	--	0.52 U	0.46 U	0.0068 U	0.0052 U
Tetrachloroethene	240	0.52 U	0.46 U	0.0068 U	0.0052 U
Toluene	650	0.52 U	1.7	0.0068 U	0.0052 U
1,1,1-Trichloroethane	1,200	0.52 U	0.46 U	0.0068 U	0.0052 U
1,1,2-Trichloroethane	1,800	0.52 U	0.46 U	0.0068 U	0.0052 U
Trichloroethene	1,300	0.52 U	0.46 U	0.0068 U	0.0052 U
Vinyl Chloride	1,200	0.52 U	0.46 U	0.0068 U	0.0052 U
m,p-Xylene	1019*	60	920	0.0068 U	0.0052 U
o-Xylene	1008*	13	63	0.0068 U	0.0052 U
Xylenes, Total	--	73	980	0.014 U	0.01 U
Subtotal:		123.08	1456.38	0.3152	0.2368

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) * - Site-specific soil saturation limits based on site-specific TOC of 15,000 mg/kg.

Table 10 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Site-Specific Soil Saturation Evaluation
Hawthorne Regulator Station

Compound/Analyte	Csat	Sample Location and Depth (feet below ground surface)/Concentration			
		SP51B-001	SP51C-001	CF02-001	CF03-001
		7-7.5	7-7.5	6-7	7-8
TCL Semivolatiles (mg/kg)					
Aniline	--	NA	NA	0.44 U	0.39 U
Benzidine	--	NA	NA	0.44 U	0.39 U
Benzoic acid	--	NA	NA	2.1 U	1.9 U
Benzyl alcohol	--	NA	NA	0.44 U	0.39 U
Bis(2-chloroethoxy)methane	--	NA	NA	0.44 U	0.39 U
Bis(2-chloroethyl)ether	3,300	NA	NA	0.44 U	0.39 U
Bis(2-ethylhexyl)phthalate	31,000	NA	NA	0.44 U	0.39 U
4-Bromophenyl phenyl ether	--	NA	NA	0.44 U	0.39 U
Butyl benzyl phthalate	930	NA	NA	0.44 U	0.39 U
Carbazole	--	NA	NA	0.44 U	0.39 U
4-Chloro-3-methylphenol	--	NA	NA	0.44 U	0.39 U
4-Chloroaniline	--	NA	NA	0.44 U	0.39 U
2-Chloronaphthalene	--	NA	NA	0.44 U	0.39 U
2-Chlorophenol	53,000	NA	NA	0.44 U	0.39 U
4-Chlorophenyl phenyl ether	--	NA	NA	0.44 U	0.39 U
Dibenzofuran	--	NA	NA	0.44 U	0.39 U
1,2-Dichlorobenzene	560	NA	NA	0.44 U	0.39 U
1,3-Dichlorobenzene	--	NA	NA	0.44 U	0.39 U
1,4-Dichlorobenzene	--	NA	NA	0.44 U	0.39 U
3,3´-Dichlorobenzidine	--	NA	NA	0.89 U	0.78 U
Diethyl phthalate	2,000	NA	NA	0.44 U	0.39 U
Dimethyl phthalate	--	NA	NA	0.44 U	0.39 U
Di-n-butyl phthalate	2,300	NA	NA	0.44 U	0.39 U
2,4-Dichlorophenol	--	NA	NA	0.44 U	0.39 U
2,4-Dimethylphenol	--	NA	NA	0.44 U	0.39 U
4,6-Dinitro-2-methylphenol	--	NA	NA	2.1 U	1.9 U
2,4-Dinitrophenol	--	NA	NA	2.1 U	1.9 U
2,4-Dinitrotoluene	--	NA	NA	0.44 U	0.39 U
2,6-Dinitrotoluene	--	NA	NA	0.44 U	0.39 U
Di-n-octyl phthalate	10,000	NA	NA	0.44 U	0.39 U
Hexachlorobenzene	--	NA	NA	0.44 U	0.39 U
Hexachlorobutadiene	--	NA	NA	0.44 U	0.39 U
Hexachlorocyclopentadiene	2,200	NA	NA	0.44 U	0.39 U
Hexachloroethane	--	NA	NA	0.44 U	0.39 U
Isophorone	4,600	NA	NA	0.44 U	0.39 U
2-Methylnaphthalene	--	NA	NA	0.44 U	0.39 U
2-Methylphenol	--	NA	NA	0.44 U	0.39 U
4-Methylphenol	--	NA	NA	0.44 U	0.39 U
2-Nitroaniline	--	NA	NA	2.1 U	1.9 U
3-Nitroaniline	--	NA	NA	2.1 U	1.9 U
4-Nitroaniline	--	NA	NA	2.1 U	1.9 U
Nitrobenzene	1,000	NA	NA	0.44 U	0.39 U
2-Nitrophenol	--	NA	NA	0.44 U	0.39 U
4-Nitrophenol	--	NA	NA	2.1 U	1.9 U
N-Nitrosodimethylamine	--	NA	NA	0.44 U	0.39 U
N-Nitrosodi-n-propylamine	--	NA	NA	0.44 U	0.39 U
N-Nitrosodiphenylamine	--	NA	NA	0.44 U	0.39 U
2, 2'-oxybis(1-Chloropropane)	--	NA	NA	0.44 U	0.39 U
Pentachlorophenol	--	NA	NA	2.1 U	1.9 U
Phenol	--	NA	NA	0.44 U	0.39 U
Pyridine	--	NA	NA	0.44 U	0.39 U
1,2,4-Trichlorobenzene	3,200	NA	NA	0.44 U	0.39 U
2,4,5-Trichlorophenol	--	NA	NA	0.89 U	0.78 U
2,4,6-Trichlorophenol	--	NA	NA	0.44 U	0.39 U
Subtotal:		NA	NA	37.94	33.92

Note:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) NA - Not Anlayzed

Table 10 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Site-Specific Soil Saturation Evaluation
Hawthorne Regulator Station

Compound/Analyte	Csat	Sample Location and Depth (feet below ground surface)/Concentration			
		SP51B-001	SP51C-001	CF02-001	CF03-001
		7-7.5	7-7.5	6-7	7-8
PAHs (mg/kg)					
Acenaphthene	--	NA	NA	0.69	0.13
Acenaphthylene	--	NA	NA	0.22	0.11
Anthracene	--	NA	NA	2.6	0.27
Benzo(a)anthracene	--	NA	NA	6.4	0.9
Benzo(b)fluoranthene	--	NA	NA	7.7	0.68
Benzo(k)fluoranthene	--	NA	NA	2.5	0.7
Benzo(g,h,i)perylene	--	NA	NA	4.4	0.58
Benzo(a)pyrene	--	NA	NA	7	1.1
Chrysene	--	NA	NA	4.9	0.92
Dibenzo(a,h)anthracene	--	NA	NA	1	0.073
Fluoranthene	--	NA	NA	12	1.9
Fluorene	--	NA	NA	0.9	0.2
Indeno(1,2,3-cd)pyrene	--	NA	NA	3.3	0.42
Naphthalene	--	NA	NA	0.54	0.077
Phenanthrene	--	NA	NA	7.5	0.88
Pyrene	--	NA	NA	14	2.2
Subtotal:		NA	NA	75.65	11.14
Total Organic Content:	15,000**	123	1456	114	45

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) **- The site-specific TOC value of 15,000 mg/kg for subsurface soil was used.
(3) NA - Not Anlayzed

Table 10 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Site-Specific Soil Saturation Evaluation
Hawthorne Regulator Station

Compound/Analyte	Csat	Sample Location and Depth (feet below ground surface)/Concentration			
		CF03-002 6-7	CF04C-001 7-8	CF04D-001 3-4	CF05C-001 9-10
TCL Volatiles (mg/kg)					
Acetone	100,000	0.056 U	2.2 U	0.03 U	0.025 U
Benzene	870	0.011 U	0.58	2.6	0.005 U
Bromodichloromethane	3,000	0.011 U	0.45 U	0.0059 U	0.005 U
Bromoform	1,900	0.011 U	0.45 U	0.0059 U	0.005 U
Bromomethane	3,200	0.022 U	0.89 U	0.012 U	0.01 U
2-Butanone	--	0.022 U	0.89 U	0.012 U	0.01 U
Carbon Disulfide	720	0.011 U	3.8	0.0059 U	0.005 U
Carbon Tetrachloride	1,100	0.011 U	0.45 U	0.0059 U	0.005 U
Chlorobenzene	680	0.011 U	0.45 U	0.0059 U	0.005 U
Chloroethane	--	0.022 U	0.89 U	0.012 U	0.01 U
Chloroform	2,900	0.011 U	0.45 U	0.0059 U	0.005 U
Chloromethane	--	0.011 U	0.45 U	0.0059 U	0.005 U
Dibromochloromethane	1,300	0.011 U	0.45 U	0.0059 U	0.005 U
1,1-Dichloroethane	1,700	0.011 U	0.45 U	0.0059 U	0.005 U
1,2-Dichloroethane	1,800	0.011 U	0.45 U	0.0059 U	0.005 U
1,1-Dichloroethene	1,500	0.011 U	0.45 U	0.0059 U	0.005 U
cis-1,2-Dichloroethene	1,200	0.011 U	0.45 U	0.0059 U	0.005 U
trans-1,2-Dichloroethene	3,100	0.011 U	0.45 U	0.0059 U	0.005 U
1,2-Dichloropropane	1,100	0.011 U	0.45 U	0.0059 U	0.005 U
cis-1,3-Dichloropropene	1,400	0.011 U	0.45 U	0.0059 U	0.005 U
trans-1,3-Dichloropropene	1,400	0.011 U	0.45 U	0.0059 U	0.005 U
Ethylbenzene	959*	0.011 U	65	0.0059 U	0.005 U
2-Hexanone	--	0.022 U	0.89 U	0.012 U	0.01 U
4-Methyl-2-Pentanone	--	0.022 U	0.89 U	0.012 U	0.01 U
Methylene Chloride	2,400	0.022 U	0.89 U	0.012 U	0.01 U
Methyl tert-butyl ether	8,800	0.011 U	0.45 U	0.0059 U	0.005 U
Styrene	1,500	0.011 U	0.45 U	0.0059 U	0.005 U
1,1,2,2-Tetrachloroethane	--	0.011 U	0.45 U	0.0059 U	0.005 U
Tetrachloroethene	240	0.011 U	0.45 U	0.043	0.005 U
Toluene	650	0.011 U	3.3	0.0059 U	0.005 U
1,1,1-Trichloroethane	1,200	0.011 U	0.65	0.41	0.005 U
1,1,2-Trichloroethane	1,800	0.011 U	0.45 U	0.0059 U	0.005 U
Trichloroethene	1,300	0.011 U	0.45 U	0.0059 U	0.005 U
Vinyl Chloride	1,200	0.011 U	0.45 U	0.0059 U	0.005 U
m,p-Xylene	1019*	0.011 U	230	0.0058 U	0.005 U
o-Xylene	1008*	0.011 U	360	0.0058 U	0.005 U
Xylenes, Total	--	0.022 U	590	0.012 U	0.01 U
Subtotal:		0.507	680.77	3.3082	0.23

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) * - Site-specific soil saturation limits based on site-specific TOC of 15,000 mg/kg.

Table 10 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Site-Specific Soil Saturation Evaluation
Hawthorne Regulator Station

Compound/Analyte	Csat	Sample Location and Depth (feet below ground surface)/Concentration			
		CF03-002 6-7	CF04C-001 7-8	CF04D-001 3-4	CF05C-001 9-10
TCL Semivolatiles (mg/kg)					
Aniline	--	0.54 U	4.4 U	0.41 U	0.4 U
Benzidine	--	0.54 U	4.4 U	0.41 U	0.4 U
Benzoic acid	--	2.6 U	22 U	2 U	1.9 U
Benzyl alcohol	--	0.54 U	4.4 U	0.41 U	0.4 U
Bis(2-chloroethoxy)methane	--	0.54 U	4.4 U	0.41 U	0.4 U
Bis(2-chloroethyl)ether	3,300	0.54 U	4.4 U	0.41 U	0.4 U
Bis(2-ethylhexyl)phthalate	31,000	0.54 U	4.4 U	0.41 U	0.4 U
4-Bromophenyl phenyl ether	--	0.54 U	4.4 U	0.41 U	0.4 U
Butyl benzyl phthalate	930	0.54 U	4.4 U	0.41 U	0.4 U
Carbazole	--	2.1	4.4 U	0.41 U	0.4 U
4-Chloro-3-methylphenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4-Chloroaniline	--	0.54 U	4.4 U	0.41 U	0.4 U
2-Chloronaphthalene	--	0.54 U	4.4 U	0.41 U	0.4 U
2-Chlorophenol	53,000	0.54 U	4.4 U	0.41 U	0.4 U
4-Chlorophenyl phenyl ether	--	0.54 U	4.4 U	0.41 U	0.4 U
Dibenzofuran	--	4.5	4.4 U	0.41 U	0.4 U
1,2-Dichlorobenzene	560	0.54 U	4.4 U	0.41 U	0.4 U
1,3-Dichlorobenzene	--	0.54 U	4.4 U	0.41 U	0.4 U
1,4-Dichlorobenzene	--	0.54 U	4.4 U	0.41 U	0.4 U
3,3´-Dichlorobenzidine	--	1.1 U	8.9 U	0.81 U	0.79 U
Diethyl phthalate	2,000	0.54 U	4.4 U	0.41 U	0.4 U
Dimethyl phthalate	--	0.54 U	4.4 U	0.41 U	0.4 U
Di-n-butyl phthalate	2,300	0.54 U	4.4 U	0.41 U	0.4 U
2,4-Dichlorophenol	--	0.54 U	4.4 U	0.41 U	0.4 U
2,4-Dimethylphenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4,6-Dinitro-2-methylphenol	--	2.6 U	22 U	2 U	1.9 U
2,4-Dinitrophenol	--	2.6 U	22 U	2 U	1.9 U
2,4-Dinitrotoluene	--	0.54 U	4.4 U	0.41 U	0.4 U
2,6-Dinitrotoluene	--	0.54 U	4.4 U	0.41 U	0.4 U
Di-n-octyl phthalate	10,000	0.54 U	4.4 U	0.41 U	0.4 U
Hexachlorobenzene	--	0.54 U	4.4 U	0.41 U	0.4 U
Hexachlorobutadiene	--	0.54 U	4.4 U	0.41 U	0.4 U
Hexachlorocyclopentadiene	2,200	0.54 U	4.4 U	0.41 U	0.4 U
Hexachloroethane	--	0.54 U	4.4 U	0.41 U	0.4 U
Isophorone	4,600	0.54 U	4.4 U	0.41 U	0.4 U
2-Methylnaphthalene	--	2.3	64	0.41 U	0.4 U
2-Methylphenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4-Methylphenol	--	1.8	4.4 U	0.41 U	0.4 U
2-Nitroaniline	--	2.6 U	22 U	2 U	1.9 U
3-Nitroaniline	--	2.6 U	22 U	2 U	1.9 U
4-Nitroaniline	--	2.6 U	22 U	2 U	1.9 U
Nitrobenzene	1,000	0.54 U	4.4 U	0.41 U	0.4 U
2-Nitrophenol	--	0.54 U	4.4 U	0.41 U	0.4 U
4-Nitrophenol	--	2.6 U	22 U	2 U	1.9 U
N-Nitrosodimethylamine	--	0.54 U	4.4 U	0.41 U	0.4 U
N-Nitrosodi-n-propylamine	--	0.54 U	4.4 U	0.41 U	0.4 U
N-Nitrosodiphenylamine	--	0.54 U	4.4 U	0.41 U	0.4 U
2, 2'-oxybis(1-Chloropropane)	--	0.54 U	4.4 U	0.41 U	0.4 U
Pentachlorophenol	--	2.6 U	22 U	2 U	1.9 U
Phenol	--	0.54 U	4.4 U	0.41 U	0.4 U
Pyridine	--	0.54 U	4.4 U	0.41 U	0.4 U
1,2,4-Trichlorobenzene	3,200	0.54 U	4.4 U	0.41 U	0.4 U
2,4,5-Trichlorophenol	--	1.1 U	8.9 U	0.81 U	0.79 U
2,4,6-Trichlorophenol	--	0.54 U	4.4 U	0.41 U	0.4 U
Subtotal:		55.3	447	35.66	25.28

Note:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.

Table 10 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Site-Specific Soil Saturation Evaluation
Hawthorne Regulator Station

Compound/Analyte	Csat	Sample Location and Depth (feet below ground surface)/Concentration			
		CF03-002 6-7	CF04C-001 7-8	CF04D-001 3-4	CF05C-001 9-10
PAHs (mg/kg)					
Acenaphthene	--	7.4	0.37	0.15	0.03 U
Acenaphthylene	--	4.2	1.2	0.16	0.03 U
Anthracene	--	15	0.61	0.66	0.03 U
Benzo(a)anthracene	--	39	5	2	0.03 U
Benzo(b)fluoranthene	--	36	4.4	2.2	0.03 U
Benzo(k)fluoranthene	--	9	1.3	0.65	0.03 U
Benzo(g,h,i)perylene	--	16	0.8	1.2	0.03 U
Benzo(a)pyrene	--	33	0.37	2	0.03 U
Chrysene	--	27	4.3	1.4	0.03 U
Dibenzo(a,h)anthracene	--	3.4	0.34 U	0.23	0.03 U
Fluoranthene	--	97	8	3.6	0.03 U
Fluorene	--	11	0.91	0.31	0.03 U
Indeno(1,2,3-cd)pyrene	--	13	0.8	0.99	0.03 U
Naphthalene	--	5.7	1200	0.3	0.03 U
Phenanthrene	--	55	7.2	3.9	0.03 U
Pyrene	--	110	11	4.1	0.03 U
Subtotal:		481.7	1246.6	23.85	0.48
Total Organic Content:	15,000**	538	2374	63	26

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) **- The site-specific TOC value of 15,000 mg/kg for subsurface soil was used.

Table 10 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Site-Specific Soil Saturation Evaluation
Hawthorne Regulator Station

Compound/Analyte	Csat	Sample Location and Depth (feet below ground surface)/Concentration		
		CF06B-001 9-10	CF06E-001 5-6	CF07-001 8-9
TCL Volatiles (mg/kg)				
Acetone	100,000	1.8 U	2.3 U	1.3 U
Benzene	870	0.37 U	0.46 U	0.26 U
Bromodichloromethane	3,000	0.37 U	0.46 U	0.26 U
Bromoform	1,900	0.37 U	0.46 U	0.26 U
Bromomethane	3,200	0.73 U	0.93 U	0.52 U
2-Butanone	--	0.73 U	0.93 U	0.52 U
Carbon Disulfide	720	0.37 U	0.46 U	0.26 U
Carbon Tetrachloride	1,100	0.37 U	0.46 U	0.26 U
Chlorobenzene	680	0.37 U	0.46 U	0.26 U
Chloroethane	--	0.73 U	0.93 U	0.52 U
Chloroform	2,900	0.37 U	0.46 U	0.26 U
Chloromethane	--	0.37 U	0.46 U	0.26 U
Dibromochloromethane	1,300	0.37 U	0.46 U	0.26 U
1,1-Dichloroethane	1,700	0.37 U	0.46 U	0.26 U
1,2-Dichloroethane	1,800	0.37 U	0.46 U	0.26 U
1,1-Dichloroethene	1,500	0.37 U	0.46 U	0.26 U
cis-1,2-Dichloroethene	1,200	0.37 U	0.46 U	0.26 U
trans-1,2-Dichloroethene	3,100	0.37 U	0.46 U	0.26 U
1,2-Dichloropropane	1,100	0.37 U	0.46 U	0.26 U
cis-1,3-Dichloropropene	1,400	0.37 U	0.46 U	0.26 U
trans-1,3-Dichloropropene	1,400	0.37 U	0.46 U	0.26 U
Ethylbenzene	959*	15	0.64	6.9
2-Hexanone	--	0.73 U	0.93 U	0.52 U
4-Methyl-2-Pentanone	--	0.73 U	0.93 U	0.52 U
Methylene Chloride	2,400	0.73 U	0.93 U	0.52 U
Methyl tert-butyl ether	8,800	0.37 U	0.46 U	0.26 U
Styrene	1,500	0.37 U	0.46 U	0.26 U
1,1,2,2-Tetrachloroethane	--	0.37 U	0.46 U	0.26 U
Tetrachloroethene	240	0.37 U	0.46 U	0.26 U
Toluene	650	0.38	1.4	0.26 U
1,1,1-Trichloroethane	1,200	0.37 U	0.46 U	0.26 U
1,1,2-Trichloroethane	1,800	0.37 U	0.46 U	0.26 U
Trichloroethene	1,300	0.37 U	0.46 U	0.26 U
Vinyl Chloride	1,200	0.37 U	0.46 U	0.26 U
m,p-Xylene	1019*	4.5	9.9	0.26 U
o-Xylene	1008*	4.2	6.3	1.5
Xylenes, Total	--	8.7	16	1.6
Subtotal:		39.51	37.62	19.84

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) * - Site-specific soil saturation limits based on site-specific TOC of 15,000 mg/kg.

Table 10 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Site-Specific Soil Saturation Evaluation
Hawthorne Regulator Station

Compound/Analyte	Csat	Sample Location and Depth (feet below ground surface)/Concentration		
		CF06B-001 9-10	CF06E-001 5-6	CF07-001 8-9
TCL Semivolatiles (mg/kg)				
Aniline	--	0.45 U	0.44 U	0.38 U
Benzidine	--	0.45 U	0.44 U	0.38 U
Benzoic acid	--	2.2 U	6.2	1.8 U
Benzyl alcohol	--	0.45 U	0.44 U	0.38 U
Bis(2-chloroethoxy)methane	--	0.45 U	0.44 U	0.38 U
Bis(2-chloroethyl)ether	3,300	0.45 U	0.44 U	0.38 U
Bis(2-ethylhexyl)phthalate	31,000	0.45 U	0.44 U	0.38 U
4-Bromophenyl phenyl ether	--	0.45 U	0.44 U	0.38 U
Butyl benzyl phthalate	930	0.45 U	0.44 U	0.38 U
Carbazole	--	0.45 U	0.44 U	0.38 U
4-Chloro-3-methylphenol	--	0.45 U	0.44 U	0.38 U
4-Chloroaniline	--	0.45 U	0.44 U	0.38 U
2-Chloronaphthalene	--	0.45 U	0.44 U	0.38 U
2-Chlorophenol	53,000	0.45 U	0.44 U	0.38 U
4-Chlorophenyl phenyl ether	--	0.45 U	0.44 U	0.38 U
Dibenzofuran	--	0.45 U	0.44 U	0.38 U
1,2-Dichlorobenzene	560	0.45 U	0.44 U	0.38 U
1,3-Dichlorobenzene	--	0.45 U	0.44 U	0.38 U
1,4-Dichlorobenzene	--	0.45 U	0.44 U	0.38 U
3,3´-Dichlorobenzidine	--	0.9 U	0.87 U	0.75 U
Diethyl phthalate	2,000	0.45 U	0.44 U	0.38 U
Dimethyl phthalate	--	0.45 U	0.44 U	0.38 U
Di-n-butyl phthalate	2,300	0.45 U	0.44 U	0.38 U
2,4-Dichlorophenol	--	0.45 U	0.44 U	0.38 U
2,4-Dimethylphenol	--	0.45 U	0.44 U	0.38 U
4,6-Dinitro-2-methylphenol	--	2.2 U	2.1 U	1.8 U
2,4-Dinitrophenol	--	2.2 U	2.1 U	1.8 U
2,4-Dinitrotoluene	--	0.45 U	0.44 U	0.38 U
2,6-Dinitrotoluene	--	0.45 U	0.44 U	0.38 U
Di-n-octyl phthalate	10,000	0.45 U	0.44 U	0.38 U
Hexachlorobenzene	--	0.45 U	0.44 U	0.38 U
Hexachlorobutadiene	--	0.45 U	0.44 U	0.38 U
Hexachlorocyclopentadiene	2,200	0.45 U	0.44 U	0.38 U
Hexachloroethane	--	0.45 U	0.44 U	0.38 U
Isophorone	4,600	0.45 U	0.44 U	0.38 U
2-Methylnaphthalene	--	4.7	2.6	0.38 U
2-Methylphenol	--	0.45 U	0.44 U	0.38 U
4-Methylphenol	--	0.45 U	0.44 U	0.38 U
2-Nitroaniline	--	2.2 U	2.1 U	1.8 U
3-Nitroaniline	--	2.2 U	2.1 U	1.8 U
4-Nitroaniline	--	2.2 U	2.1 U	1.8 U
Nitrobenzene	1,000	0.45 U	0.44 U	0.38 U
2-Nitrophenol	--	0.45 U	0.44 U	0.38 U
4-Nitrophenol	--	2.2 U	2.1 U	1.8 U
N-Nitrosodimethylamine	--	0.45 U	0.44 U	0.38 U
N-Nitrosodi-n-propylamine	--	0.45 U	0.44 U	0.38 U
N-Nitrosodiphenylamine	--	0.45 U	0.44 U	0.38 U
2, 2'-oxybis(1-Chloropropane)	--	0.45 U	0.44 U	0.38 U
Pentachlorophenol	--	2.2 U	2.1 U	1.8 U
Phenol	--	0.45 U	0.44 U	0.38 U
Pyridine	--	0.45 U	0.44 U	0.38 U
1,2,4-Trichlorobenzene	3,200	0.45 U	0.44 U	0.38 U
2,4,5-Trichlorophenol	--	0.9 U	0.87 U	0.75 U
2,4,6-Trichlorophenol	--	0.45 U	0.44 U	0.38 U
Subtotal:		43.45	44.16	32.62

Note:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.

Table 10 (Continued)
SVE Post-Remediation Subsurface Soil Samples Analytical Results
Site-Specific Soil Saturation Evaluation
Hawthorne Regulator Station

Compound/Analyte	Csat	Sample Location and Depth (feet below ground surface)/Concentration		
		CF06B-001 9-10	CF06E-001 5-6	CF07-001 8-9
PAHs (mg/kg)				
Acenaphthene	--	0.13	0.033 U	0.042
Acenaphthylene	--	0.3	0.092	0.028 U
Anthracene	--	0.097	0.055	0.028
Benzo(a)anthracene	--	0.15	0.16	0.099
Benzo(b)fluoranthene	--	0.085	0.45	0.11
Benzo(k)fluoranthene	--	0.034 U	0.063	0.037
Benzo(g,h,i)perylene	--	0.034 U	0.1	0.046
Benzo(a)pyrene	--	0.049	0.18	0.079
Chrysene	--	0.1	0.29	0.07
Dibenzo(a,h)anthracene	--	0.034 U	0.033 U	0.028 U
Fluoranthene	--	0.3	0.22	0.18
Fluorene	--	0.32	0.033 U	0.028 U
Indeno(1,2,3-cd)pyrene	--	0.034 U	0.091	0.038
Naphthalene	--	45	11	3.9
Phenanthrene	--	0.58	0.22	0.063
Pyrene	--	0.32	0.46	0.18
Subtotal:		47.567	13.48	4.956
Total Organic Content:	15,000**	131	95	57

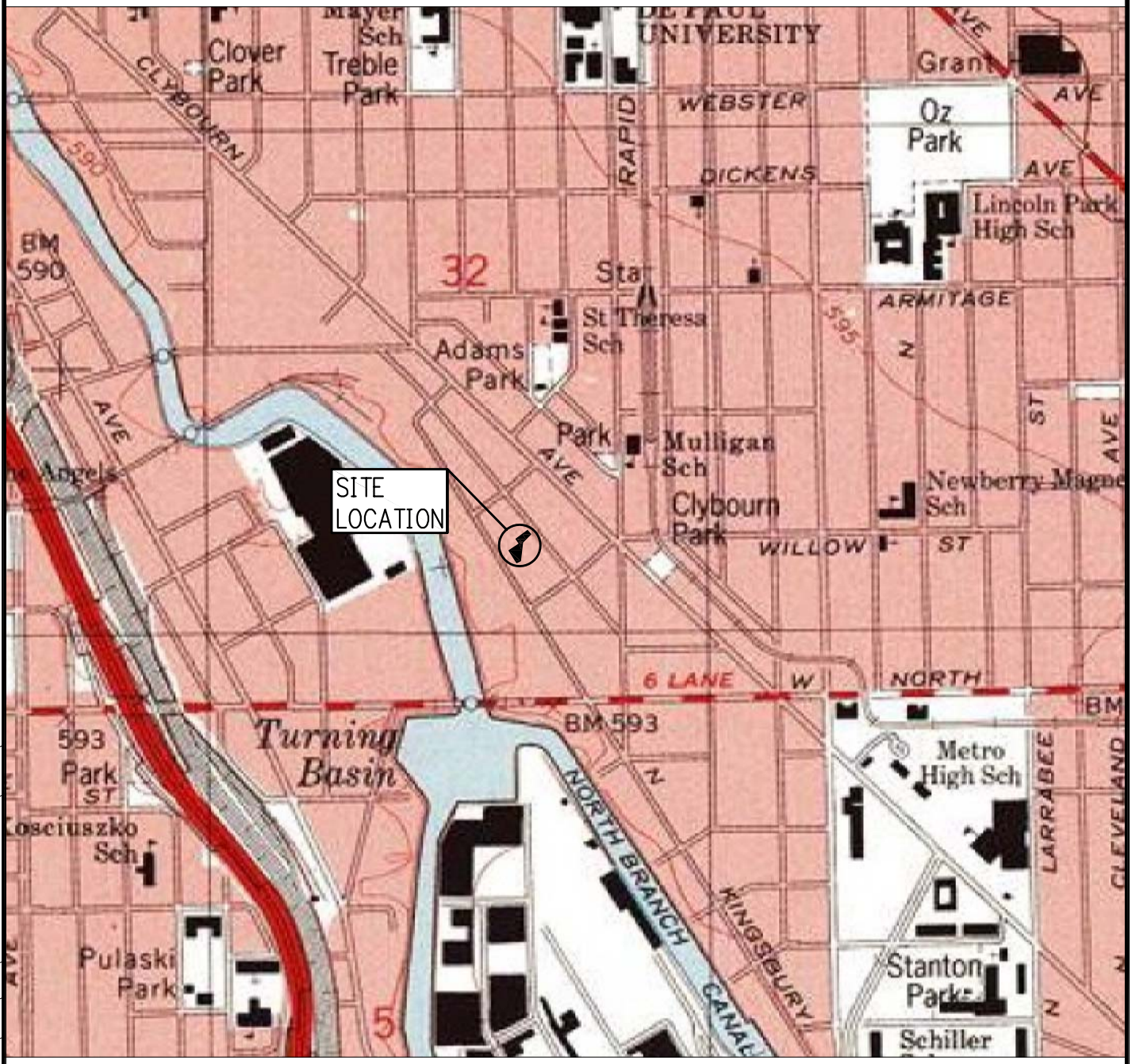
Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected, the associated value is the sample reporting limit.
(2) **- The site-specific TOC value of 15,000 mg/kg for subsurface soil was used.

Table 11
North Portion Confirmation Samples
Hawthorne Regulator Station

Compound/Analyte	Remediation Objective	Sample/depth (feet below ground surface)							
		CF08-001* 4-8	NW08-001 4-8	NW08-002 4-8	SW08-001 4-8	WW08-001 4-8	EW08-001 4-8	EW08-002 4-8	Floor08-001 8
Total Lead (mg/kg)									
Total Lead	NA	3,300	4,500	300	32	340	810	120	44
TCLP Lead (mg/L)									
TCLP Lead	5	3	5.5	0.1	0.34	0.18	6.2	0.093	0.021

Notes:
(1) * Soil sample CF08-001 was composited in the laboratory from soil samples NW08-001, SW08-001, WW08-001, EW08-001, and Floor08-001.
(2) Shaded value exceeds remediation objective.
(3) NA - Not applicable.

FIGURES
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION



NORTH

1000 0 1000 2000

APPROXIMATE SCALE IN FEET

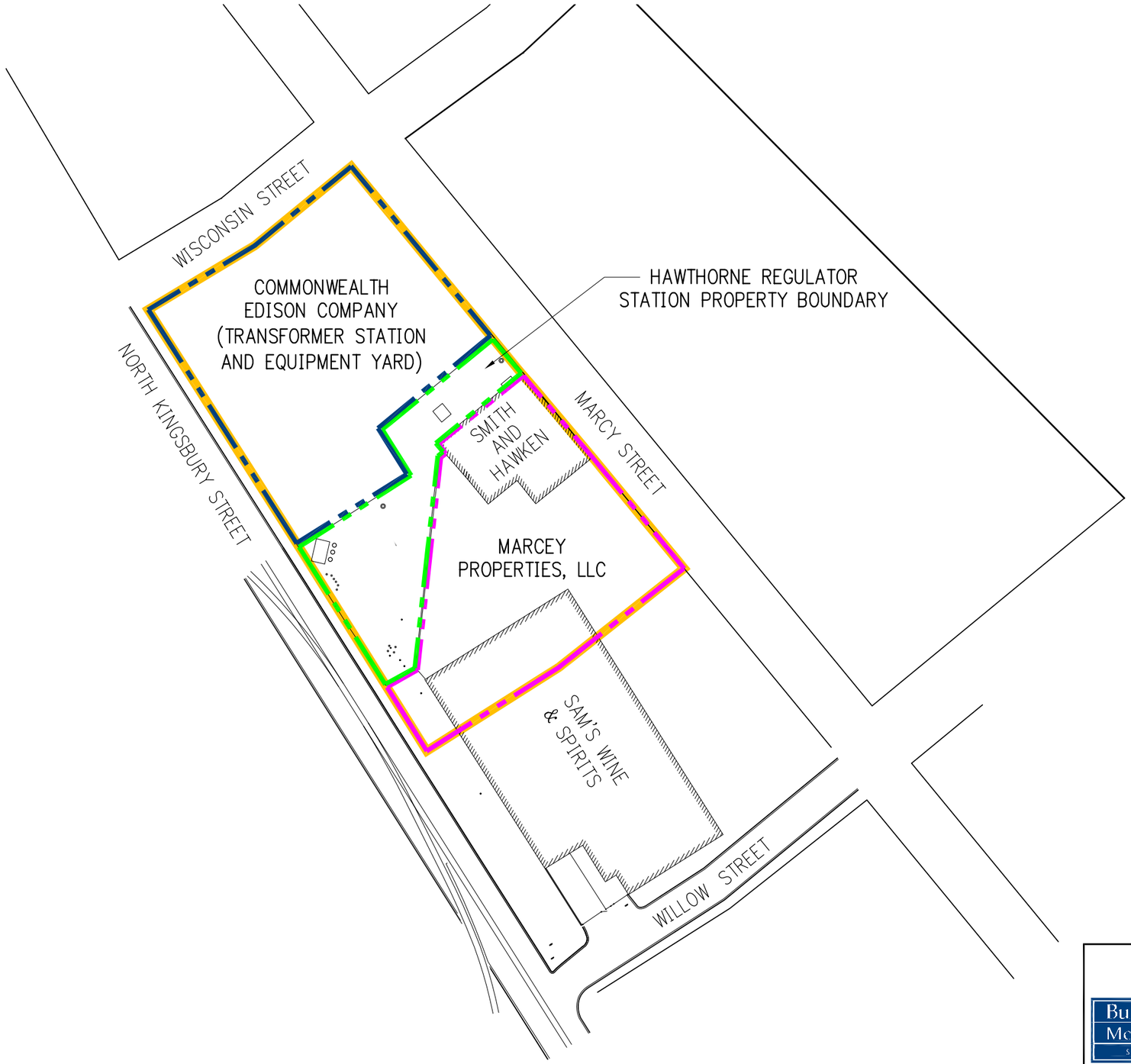
Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 1

SITE LOCATION MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RACR\SITE LOCATION



LEGEND

- FORMER HAWTHORNE AVENUE STATION GAS STORAGE FACILITY BOUNDARY
- COMMONWEALTH EDISON COMPANY (TRANSFORMER STATION AND EQUIPMENT YARD)
- HAWTHORNE REGULATOR STATION PROPERTY BOUNDARY
- MARCEY PROPERTIES, LLC
- RAILROAD TRACKS
- EXISTING FENCE
- EXISTING BUILDING

NOTE:

1. FORMER HAWTHORNE AVENUE STATION GAS STORAGE FACILITY BOUNDARY IS APPROXIMATE BASED ON HISTORICAL DIAGRAMS.

NORTH

100 0 100 200

SCALE IN FEET

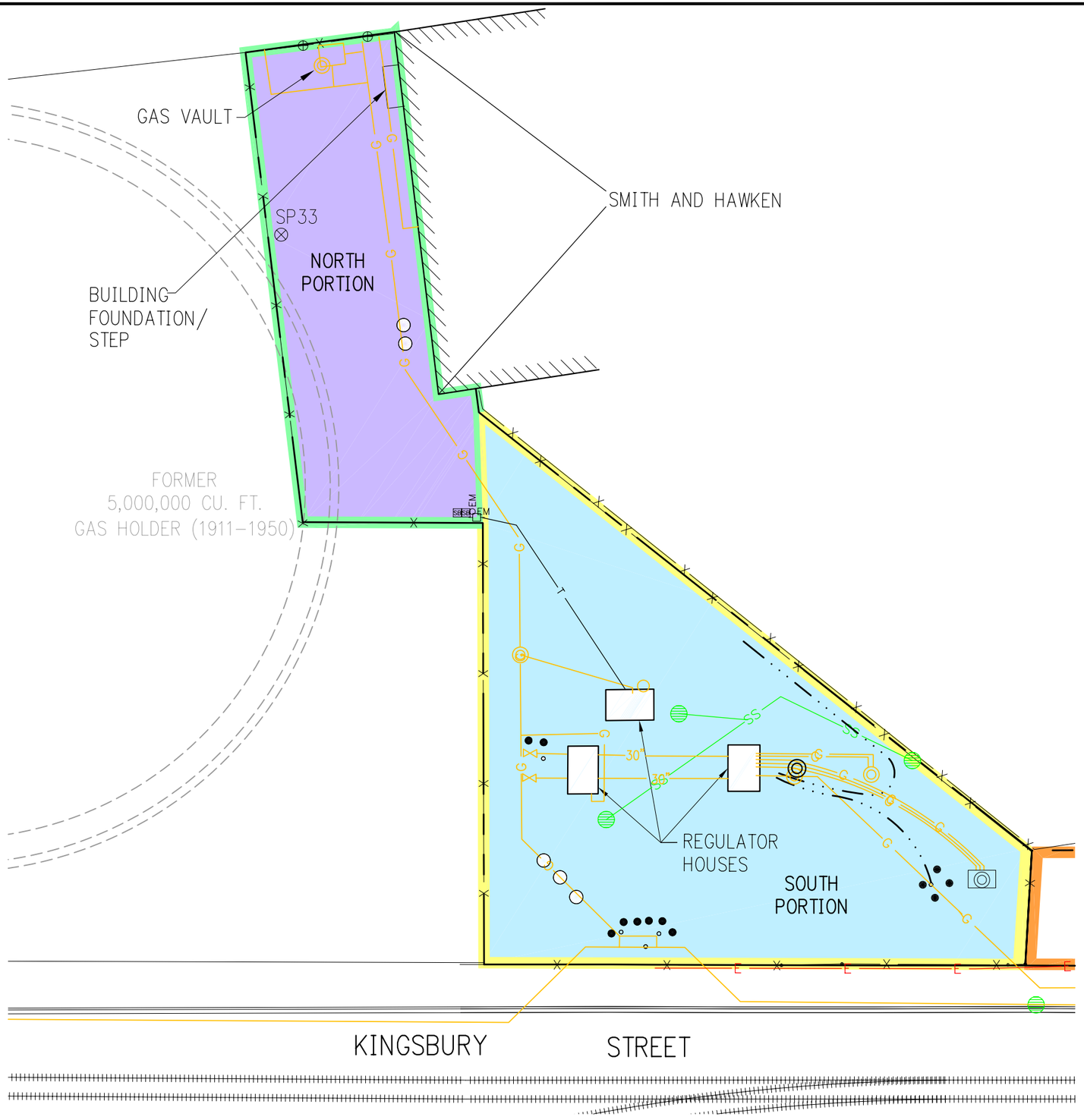
Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT AND COKE COMPANY
CHICAGO, ILLINOIS

Figure 2

FORMER HAWTHORNE AVENUE STATION GAS STORAGE FACILITY LAYOUT MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE STATION-29168\CAD\BID\REGULATOR STATION\RACR\FORMER WILLOW



LEGEND

- A PORTION OF WILLOW STREET STATION BOUNDARY
- HAWTHORNE REGULATOR STATION NORTH PORTION BOUNDARY
- HAWTHORNE REGULATOR STATION SOUTH PORTION BOUNDARY
- EXISTING BUILDING
- PROPERTY LINE
- RAILROAD TRACKS
- HISTORICAL STRUCTURES
- FENCE
- GAS MAIN VALVE
- STAND PIPE
- ABOVE GROUND POSTS
- NORTH PORTION
- SOUTH PORTION
- CATHODIC PROTECTION LINE
- SEWER LINE
- TELEPHONE LINE
- GAS MAIN
- ELECTRICAL LINE
- PREVIOUS SOIL PROBE LOCATION

NORTH

30 0 30 60

SCALE IN FEET

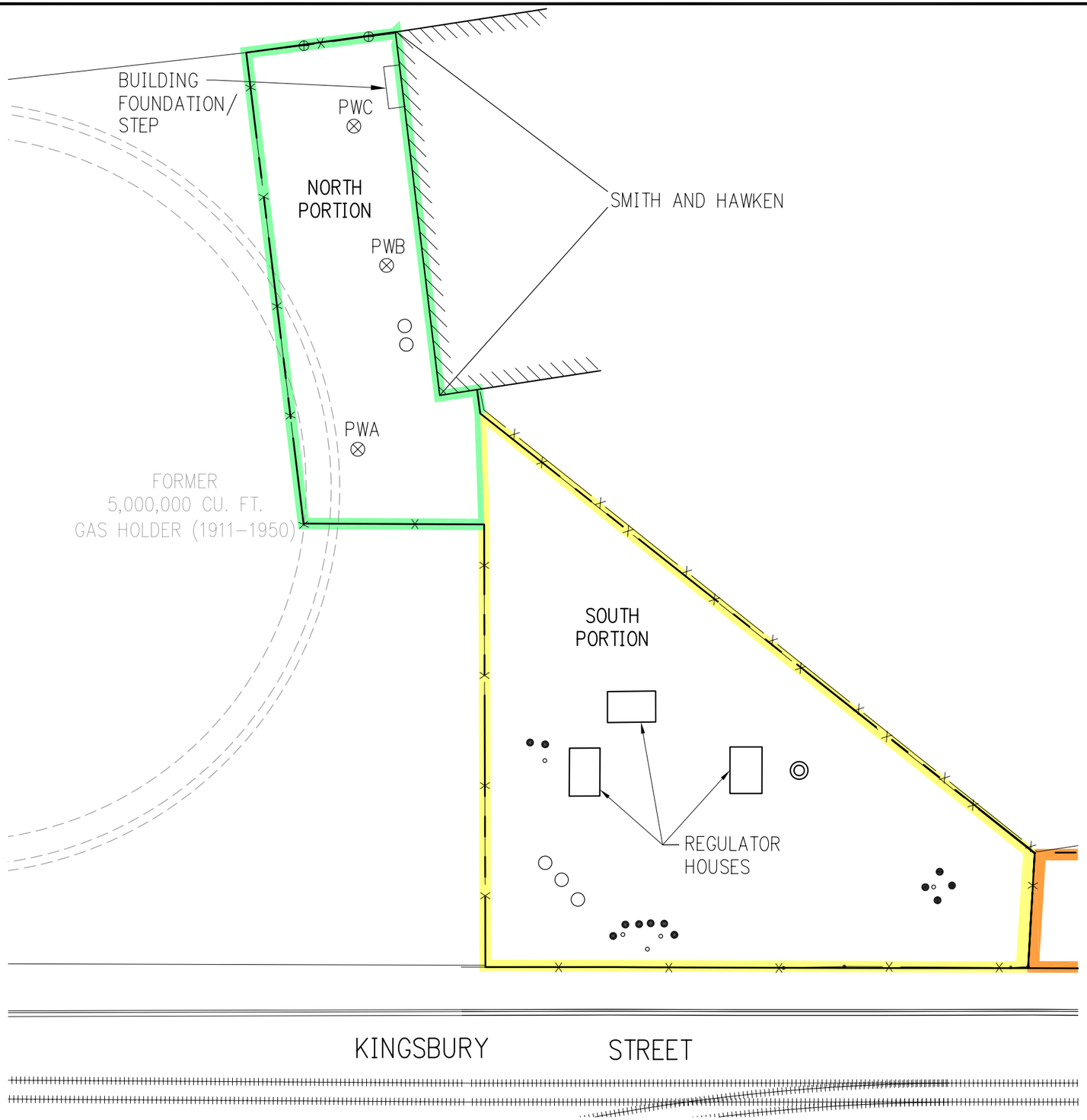
Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 3

SITE LAYOUT MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RACR\SITE LAYOUT



LEGEND

- A PORTION OF WILLOW STREET STATION BOUNDARY
- HAWTHORNE REGULATOR STATION NORTH PORTION BOUNDARY
- HAWTHORNE REGULATOR STATION SOUTH PORTION BOUNDARY
- EXISTING BUILDING
- PROPERTY LINE
- RAILROAD TRACKS
- HISTORICAL STRUCTURES
- FENCE
- GAS MAIN VALVE
- STAND PIPE
- ABOVE GROUND POSTS
- ASBESTOS SAMPLE LOCATION

NORTH

30 0 30 60

SCALE IN FEET

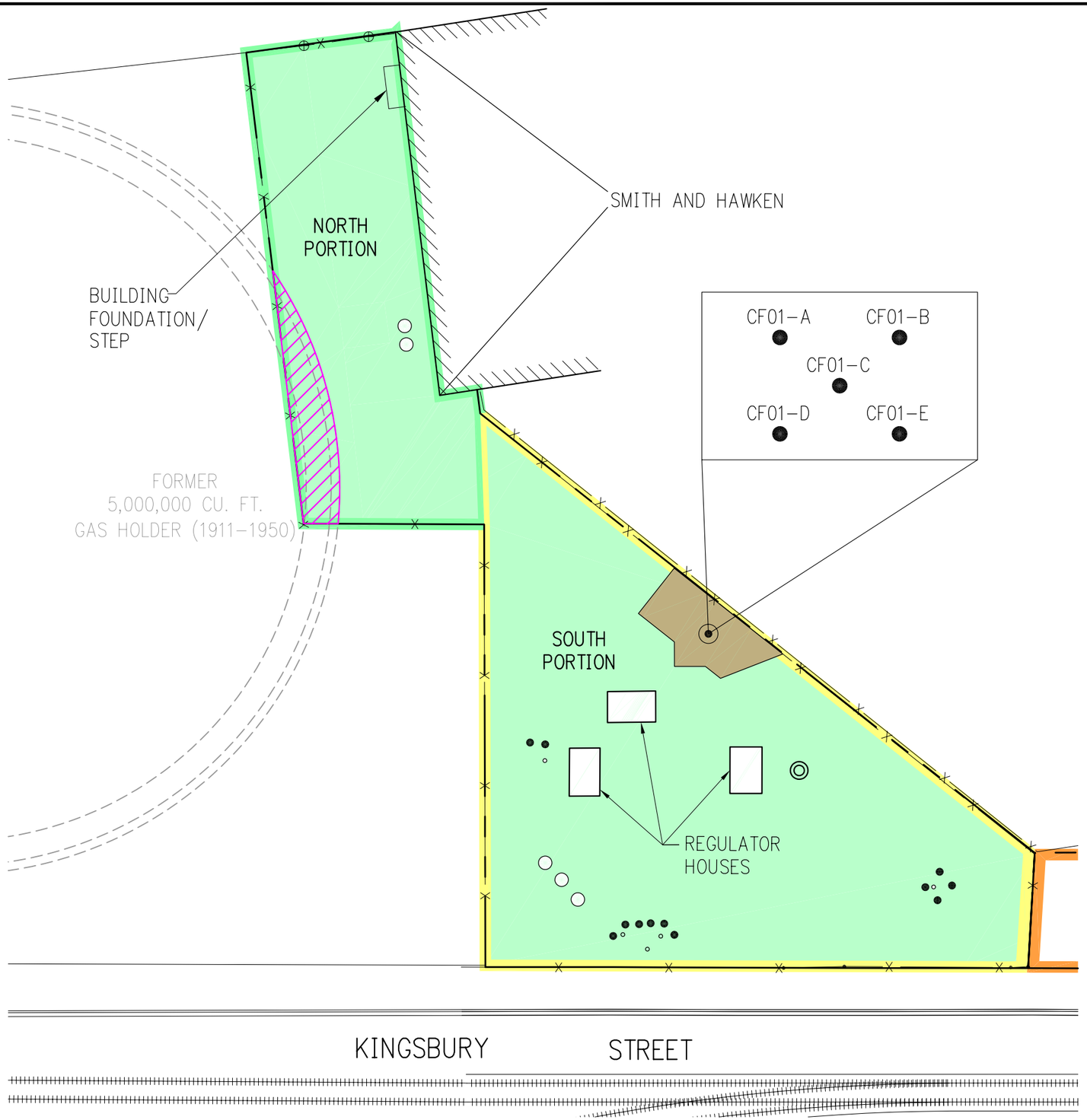
Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 4

LOCATION OF ASBESTOS SAMPLES MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RACR\ASBESTOS SAMPLES



LEGEND

- A PORTION OF WILLOW STREET STATION BOUNDARY
- HAWTHORNE REGULATOR STATION NORTH PORTION BOUNDARY
- HAWTHORNE REGULATOR STATION SOUTH PORTION BOUNDARY
- EXISTING BUILDING
- PROPERTY LINE
- RAILROAD TRACKS
- HISTORICAL STRUCTURES
- FENCE
- GAS MAIN VALVE
- STAND PIPE
- ABOVE GROUND POSTS
- EXCAVATED TO 3' BGS
- EXCAVATED TO 4.5' BGS
- SPLP CYANIDE COMPOSITE SAMPLE
- 40–MIL HDPE ENGINEERED BARRIER

NORTH

30 0 30 60

SCALE IN FEET

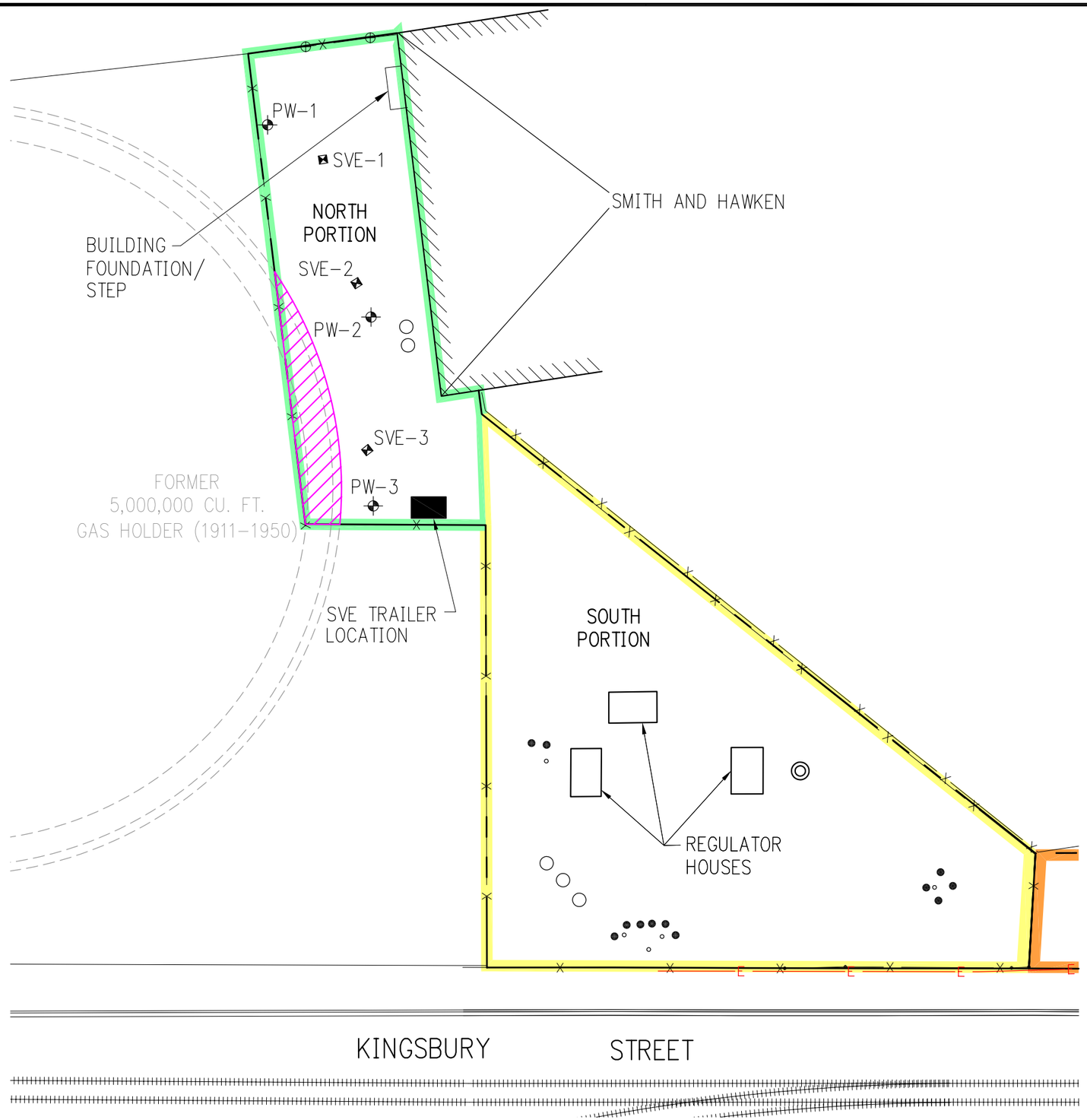
Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 5

SOUTH PORTION SOIL CONFIRMATION SAMPLE LOCATION MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RACR\S-CONF SAMPLE LOC



LEGEND

- A PORTION OF WILLOW STREET STATION BOUNDARY
- HAWTHORNE REGULATOR STATION NORTH PORTION BOUNDARY
- HAWTHORNE REGULATOR STATION SOUTH PORTION BOUNDARY
- EXISTING BUILDING
- PROPERTY LINE
- RAILROAD TRACKS
- HISTORICAL STRUCTURES
- FENCE
- GAS MAIN VALVE
- STAND PIPE
- ABOVE GROUND POSTS
- SVE WELLS
- PASSIVE AIR INLET WELLS
- 40-MIL HDPE ENGINEERED BARRIER

NORTH

30 0 30 60

SCALE IN FEET

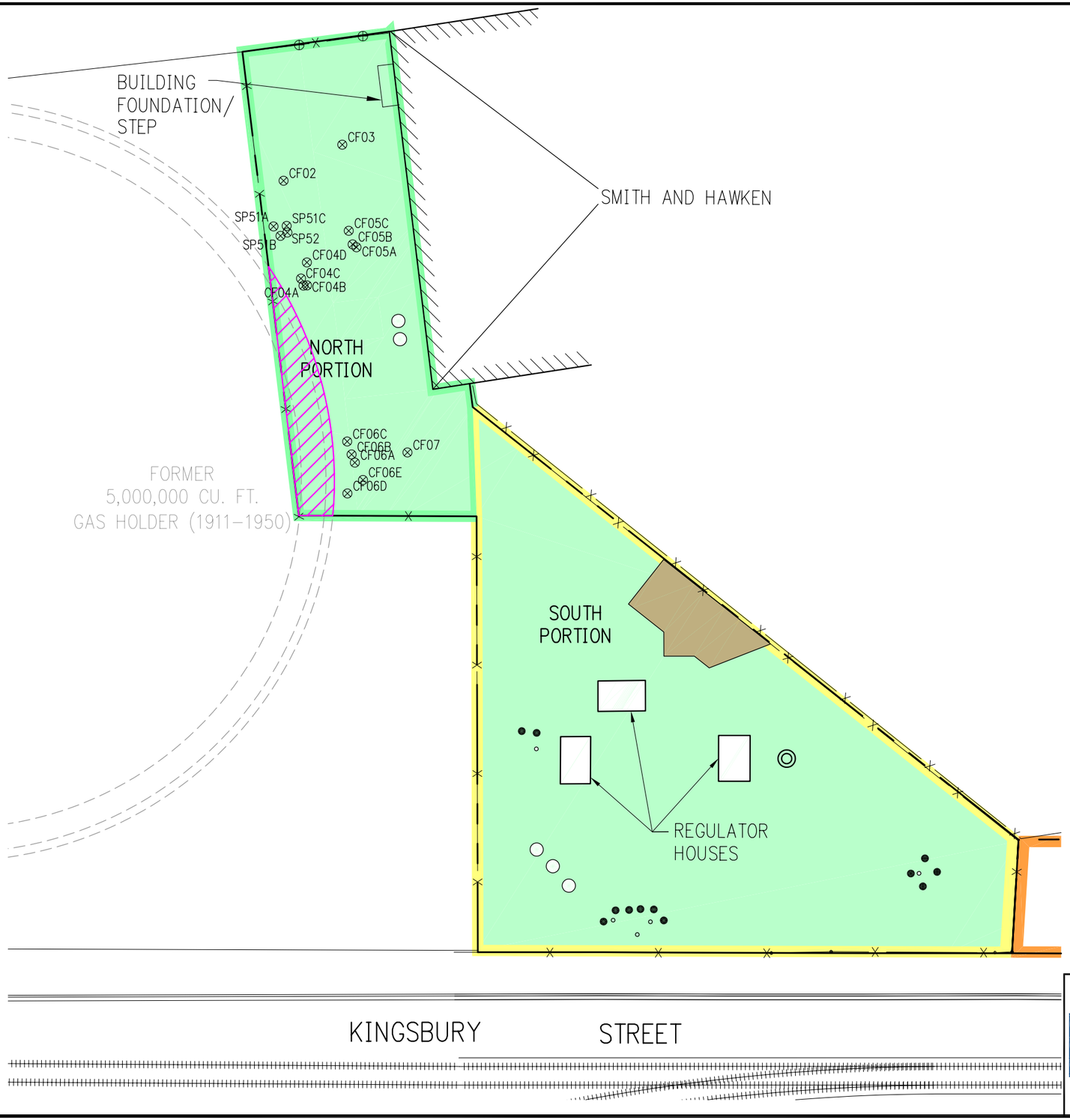
Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 6

SVE WELL LOCATION MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RACR\SVE WELL LOC



LEGEND

- A PORTION OF WILLOW STREET STATION BOUNDARY
- HAWTHORNE REGULATOR STATION NORTH PORTION BOUNDARY
- HAWTHORNE REGULATOR STATION SOUTH PORTION BOUNDARY
- EXISTING BUILDING
- PROPERTY LINE
- RAILROAD TRACKS
- HISTORICAL STRUCTURES
- FENCE
- GAS MAIN VALVE
- STAND PIPE
- ABOVE GROUND POSTS
- EXCAVATED TO 3' BGS
- EXCAVATED TO 4.5' BGS
- 40-MIL HDPE ENGINEERED BARRIER
- CONFIRMATION SOIL PROBE LOCATION

NORTH

30 0 30 60

SCALE IN FEET

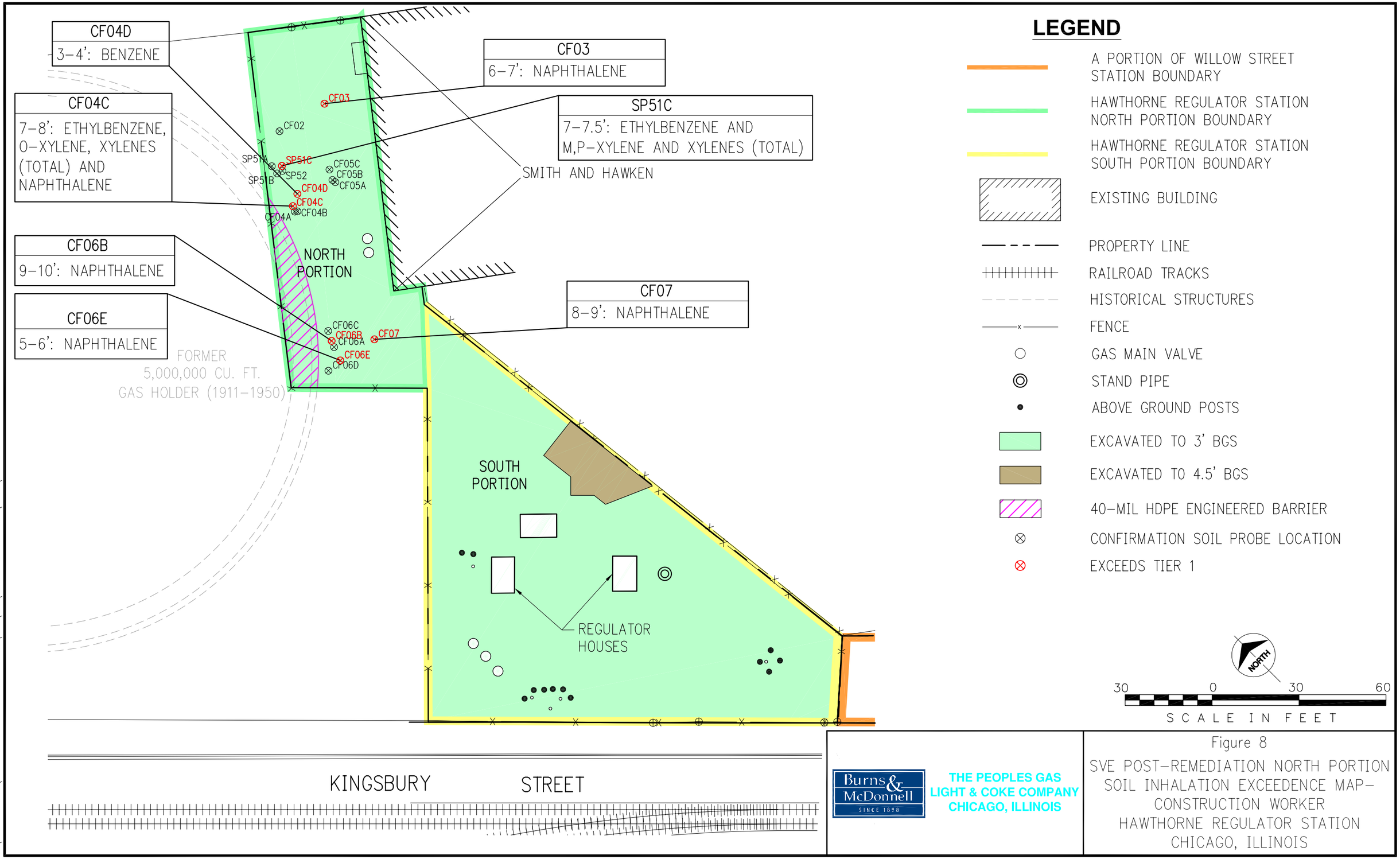
Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 7

SVE POST-REMEDIATION NORTH PORTION SOIL SAMPLE LOCATION MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RACR\N-CONF SAMPLE LOC

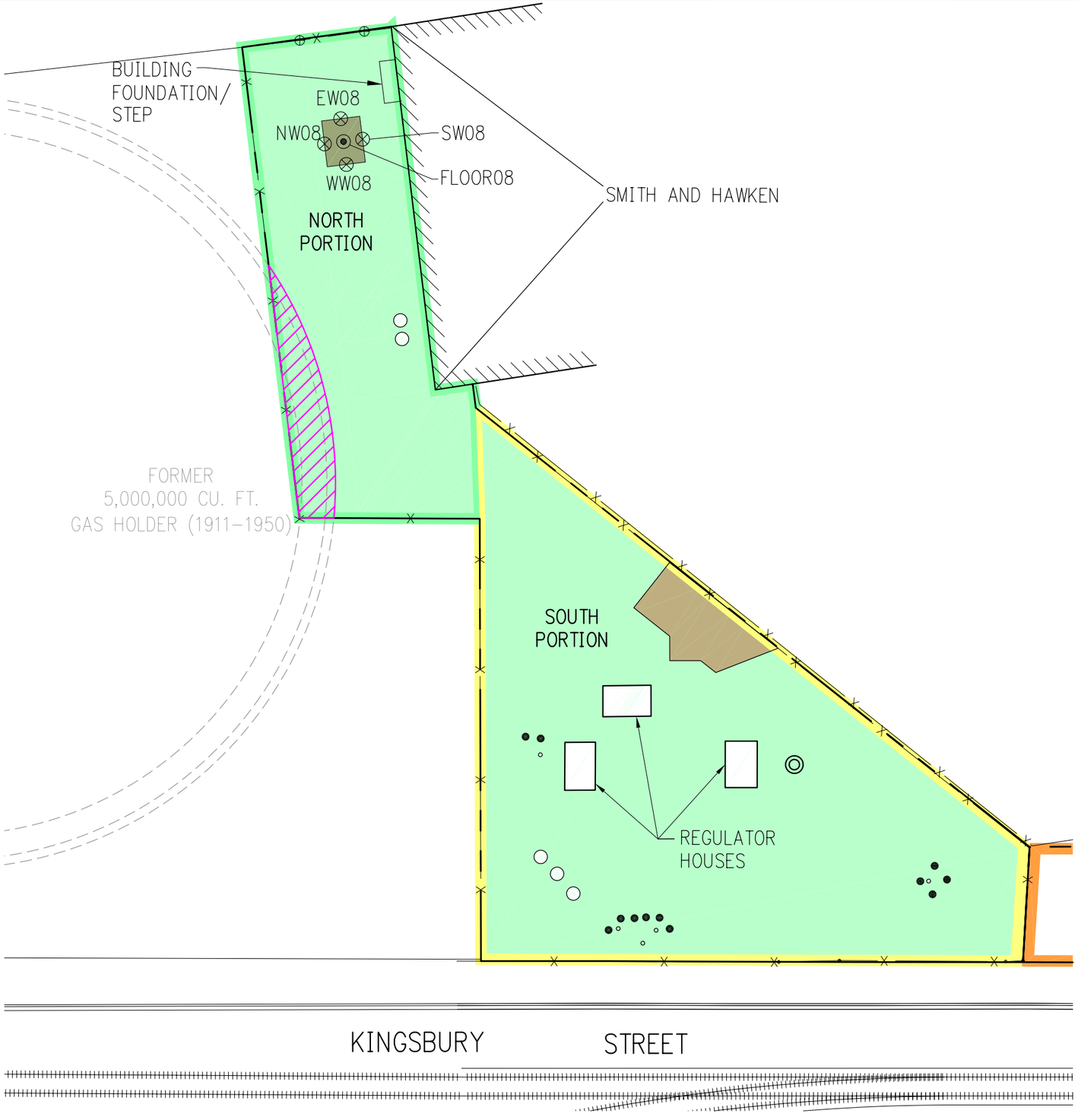


Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 8
SVE POST–REMEDIATION NORTH PORTION SOIL INHALATION EXCEEDENCE MAP–CONSTRUCTION WORKER
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION–29168\CAD\BID\REGULATOR STATION\RACR\INHAL CW



LEGEND

- A PORTION OF WILLOW STREET STATION BOUNDARY
- HAWTHORNE REGULATOR STATION NORTH PORTION BOUNDARY
- HAWTHORNE REGULATOR STATION SOUTH PORTION BOUNDARY
- EXISTING BUILDING
- PROPERTY LINE
- RAILROAD TRACKS
- HISTORICAL STRUCTURES
- FENCE
- GAS MAIN VALVE
- STAND PIPE
- ABOVE GROUND POSTS
- EXCAVATED TO 3' BGS
- EXCAVATED TO 4.5' BGS
- EXCAVATED TO 8' BGS
- 40-MIL HDPE ENGINEERED BARRIER
- SIDEWALL COMPOSITE CONFIRMATION SAMPLE
- FLOOR COMPOSITE CONFIRMATION SAMPLE

NORTH

30 0 30 60

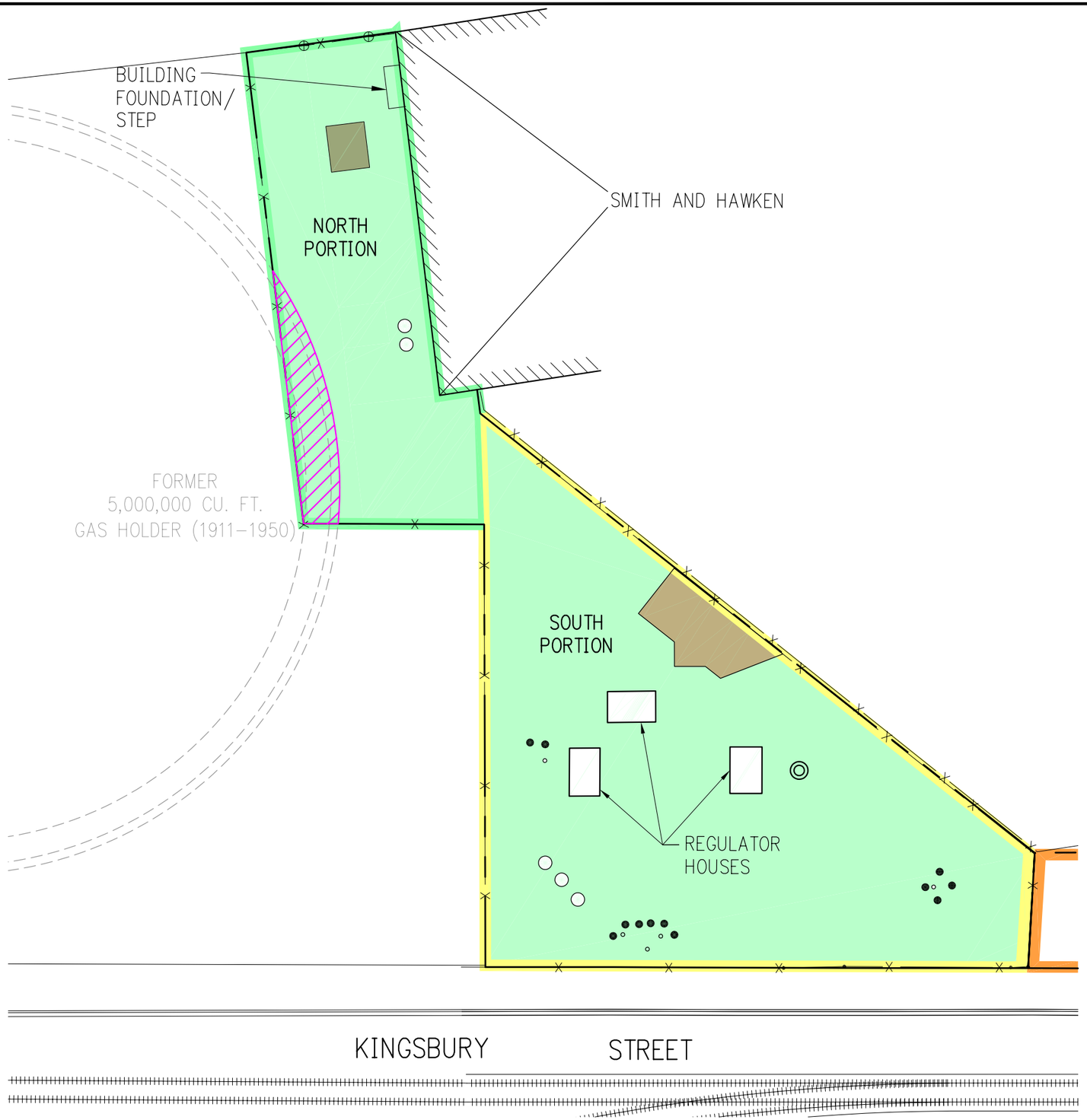
SCALE IN FEET

Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 9
NORTH PORTION SOIL CONFIRMATION SAMPLE LOCATION MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RACR\NORTH PORTION CONF SAMPLE



LEGEND

- A PORTION OF WILLOW STREET STATION BOUNDARY
- HAWTHORNE REGULATOR STATION NORTH PORTION BOUNDARY
- HAWTHORNE REGULATOR STATION SOUTH PORTION BOUNDARY
- EXISTING BUILDING
- PROPERTY LINE
- RAILROAD TRACKS
- HISTORICAL STRUCTURES
- FENCE
- GAS MAIN VALVE
- STAND PIPE
- ABOVE GROUND POSTS
- EXCAVATED TO 3' BGS
- EXCAVATED TO 4.5' BGS
- EXCAVATED TO 8' BGS
- 40–MIL HDPE ENGINEERED BARRIER

NORTH

30 0 30 60

SCALE IN FEET

Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

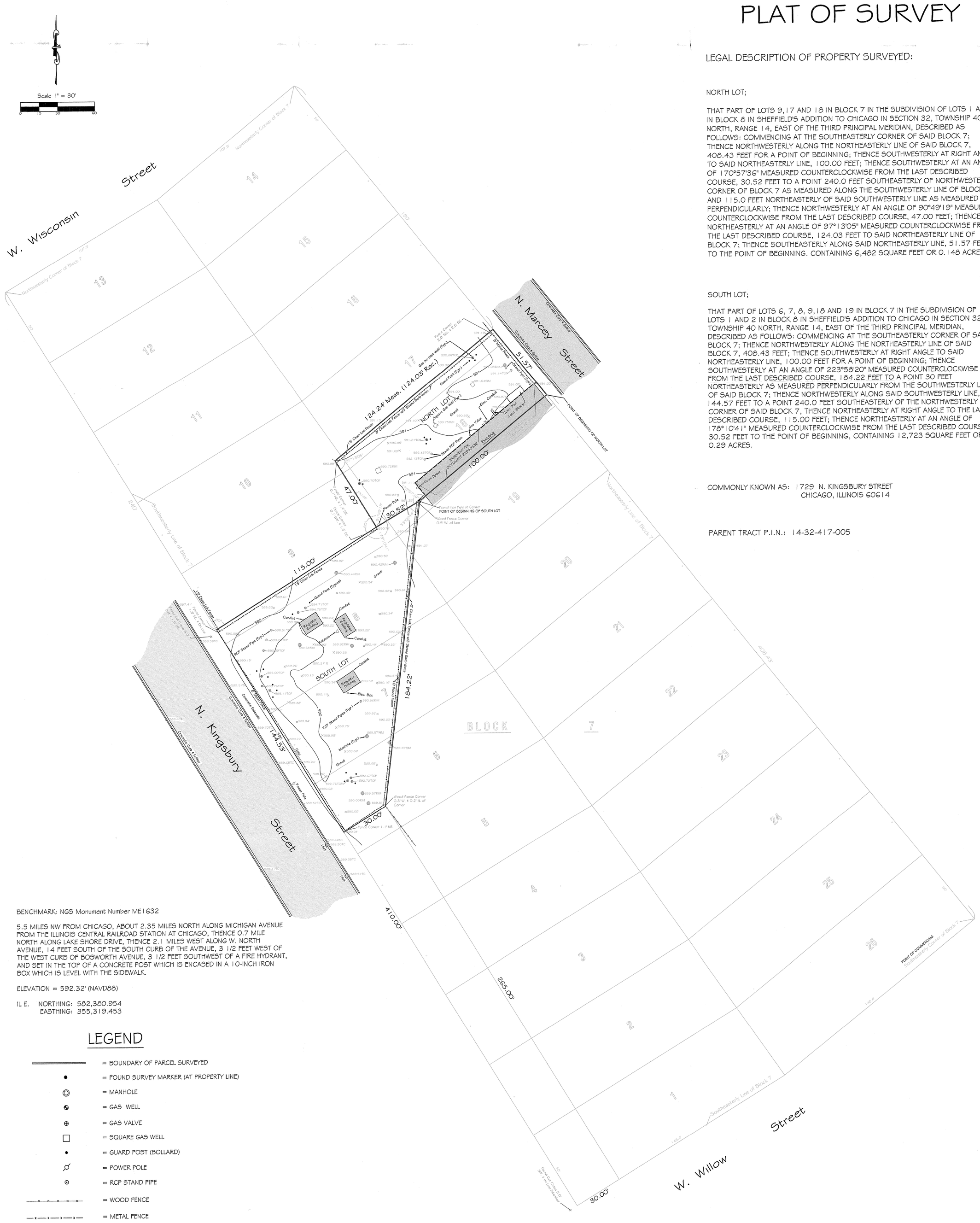
Figure 10

FINAL EXCAVATION MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RACR\EXCAVATION MAP

APPENDIX A
PLAT OF SURVEY
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

PLAT OF SURVEY



LEGAL DESCRIPTION OF PROPERTY SURVEYED:

NORTH LOT;

THAT PART OF LOTS 9, 17 AND 18 IN BLOCK 7 IN THE SUBDIVISION OF LOTS 1 AND 2 IN BLOCK 8 IN SHEFFIELD'S ADDITION TO CHICAGO IN SECTION 32, TOWNSHIP 40 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEASTERLY CORNER OF SAID BLOCK 7; THENCE NORTHWESTERLY ALONG THE NORTHEASTERLY LINE OF SAID BLOCK 7, 408.43 FEET FOR A POINT OF BEGINNING; THENCE SOUTHWESTERLY AT RIGHT ANGLE TO SAID NORTHEASTERLY LINE, 100.00 FEET; THENCE SOUTHWESTERLY AT AN ANGLE OF 170°57'36" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 30.52 FEET TO A POINT 240.0 FEET SOUTHEASTERLY OF NORTHWESTERLY CORNER OF BLOCK 7 AS MEASURED ALONG THE SOUTHWESTERLY LINE OF BLOCK 7 AND 115.0 FEET NORTHEASTERLY OF SAID SOUTHWESTERLY LINE AS MEASURED PERPENDICULARLY; THENCE NORTHWESTERLY AT AN ANGLE OF 90°49'19" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 47.00 FEET; THENCE NORTHEASTERLY AT AN ANGLE OF 97°13'05" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 124.03 FEET TO SAID NORTHEASTERLY LINE OF BLOCK 7; THENCE SOUTHEASTERLY ALONG SAID NORTHEASTERLY LINE, 51.57 FEET TO THE POINT OF BEGINNING. CONTAINING 6,482 SQUARE FEET OR 0.148 ACRES.

SOUTH LOT;

THAT PART OF LOTS 6, 7, 8, 9, 18 AND 19 IN BLOCK 7 IN THE SUBDIVISION OF LOTS 1 AND 2 IN BLOCK 8 IN SHEFFIELD'S ADDITION TO CHICAGO IN SECTION 32, TOWNSHIP 40 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEASTERLY CORNER OF SAID BLOCK 7; THENCE NORTHWESTERLY ALONG THE NORTHEASTERLY LINE OF SAID BLOCK 7, 408.43 FEET; THENCE SOUTHWESTERLY AT RIGHT ANGLE TO SAID NORTHEASTERLY LINE, 100.00 FEET FOR A POINT OF BEGINNING; THENCE SOUTHWESTERLY AT AN ANGLE OF 223°58'20" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 184.22 FEET TO A POINT 30 FEET NORTHEASTERLY AS MEASURED PERPENDICULARLY FROM THE SOUTHWESTERLY LINE OF SAID BLOCK 7; THENCE NORTHWESTERLY ALONG SAID SOUTHWESTERLY LINE, 144.57 FEET TO A POINT 240.0 FEET SOUTHEASTERLY OF THE NORTHWESTERLY CORNER OF SAID BLOCK 7, THENCE NORTHEASTERLY AT RIGHT ANGLE TO THE LAST DESCRIBED COURSE, 115.00 FEET; THENCE NORTHEASTERLY AT AN ANGLE OF 178°10'41" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 30.52 FEET TO THE POINT OF BEGINNING, CONTAINING 12,723 SQUARE FEET OR 0.29 ACRES.

COMMONLY KNOWN AS: 1729 N. KINGSBURY STREET
CHICAGO, ILLINOIS 60614

PARENT TRACT P.I.N.: 14-32-417-005

BENCHMARK: NGS Monument Number ME1632

5.5 MILES NW FROM CHICAGO, ABOUT 2.35 MILES NORTH ALONG MICHIGAN AVENUE FROM THE ILLINOIS CENTRAL RAILROAD STATION AT CHICAGO, THENCE 0.7 MILE NORTH ALONG LAKE SHORE DRIVE, THENCE 2.1 MILES WEST ALONG W. NORTH AVENUE, 14 FEET SOUTH OF THE SOUTH CURB OF THE AVENUE, 3 1/2 FEET WEST OF THE WEST CURB OF BOSWORTH AVENUE, 3 1/2 FEET SOUTHWEST OF A FIRE HYDRANT, AND SET IN THE TOP OF A CONCRETE POST WHICH IS ENCASED IN A 10-INCH IRON BOX WHICH IS LEVEL WITH THE SIDEWALK.

ELEVATION = 592.32' (NAVD88)

IL E. NORTHING: 582,380.954
EASTHING: 355,319.453

LEGEND

= BOUNDARY OF PARCEL SURVEYED
= FOUND SURVEY MARKER (AT PROPERTY LINE)
= MANHOLE
= GAS WELL
= GAS VALVE
= SQUARE GAS WELL
= GUARD POST (BOLLARD)
= POWER POLE
= RCP STAND PIPE
= WOOD FENCE
= METAL FENCE
590.89'× = SPOT ELEVATION
591 = CONTOUR LINE
TC = TOP OF CURB
(Typ.) = TYPICAL
= BUILDING
= ASPHALT PAVEMENT

STATE OF ILLINOIS)
)S.S.
COUNTY OF KANE)

THIS IS TO CERTIFY THAT THE PLAT SHOWN HEREON IS A CORRECT REPRESENTATION OF A SURVEY PERFORMED AT AND UNDER MY DIRECTION. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

ALL DIMENSIONS SHOWN ARE IN FEET AND DECIMAL PARTS THEREOF.

GIVEN UNDER MY HAND AND SEAL THIS 15TH DAY OF MARCH, A.D. 2005.

PROFESSIONAL LAND SURVEYOR JOHN TANER SALIHOGLU 35-3317 ELBURN ILLINOIS

JOHN TANER SALIHOGLU
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3317
LICENSE EXPIRES 11/06

Horizon Consulting Group
PROFESSIONAL DESIGN FIRM
LAND SURVEYING CORPORATION #184-003352
44 W 540 KESLINGER ROAD
ELBURN, ILLINOIS 60119
WWW.HORIZONSURVEYING.COM
Tel: (630) 365-4100
(815) 754-7755
(888) 754-7755
Fax: (630) 365-4103

PLAT OF SURVEY
of
Hawthorne Regulator Station
1729 N. Kingsbury Street
Chicago, Illinois 60614

PREPARED FOR:
Burns & McDonnell
2601 West 22nd Street
Oak Brook, Illinois 60523-1229
Tel: 630-990-0300 Fax: 630 990-0301

FIELD DATE:	11/20/2004
DRAWING DATE:	2/12/2005
CHECKED BY:	JTS
DRAWN BY:	PS
JOB #	3726POS

SHEET 1 OF 2

PLAT OF SURVEY

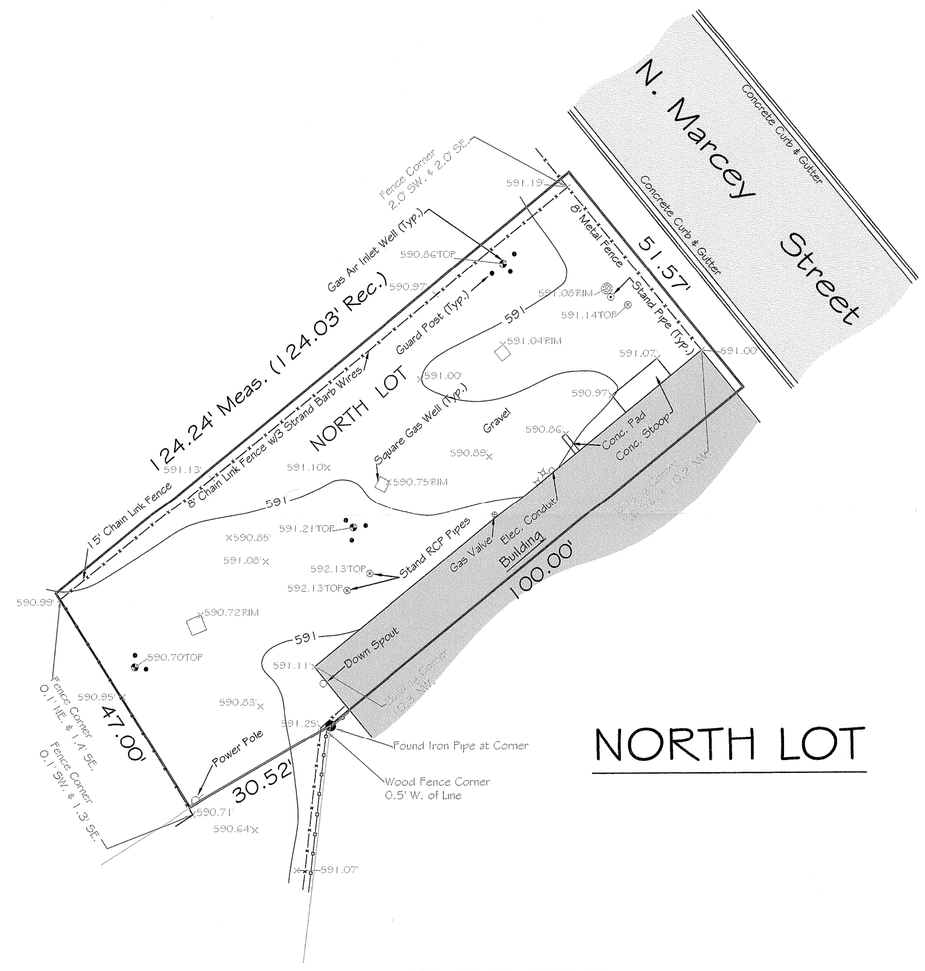
" DETAILS "

Scale 1" = 20'

0 10 20 40

LEGEND

- = BOUNDARY OF PARCEL SURVEYED
- = FOUND SURVEY MARKER (AT PROPERTY LINE)
- = MANHOLE
- = GAS WELL
- = GAS VALVE
- = SQUARE GAS WELL
- = GUARD POST (BOLLARD)
- = POWER POLE
- = RCP STAND PIPE
- = WOOD FENCE
- — x — x — x — = METAL FENCE
- 590.89'x = SPOT ELEVATION
- 591 = CONTOUR LINE
- TC = TOP OF CURB
- (Typ.) = TYPICAL
- = BUILDING
- = ASPHALT PAVEMENT



NORTH LOT

NORTH LOT LEGAL DESCRIPTION;

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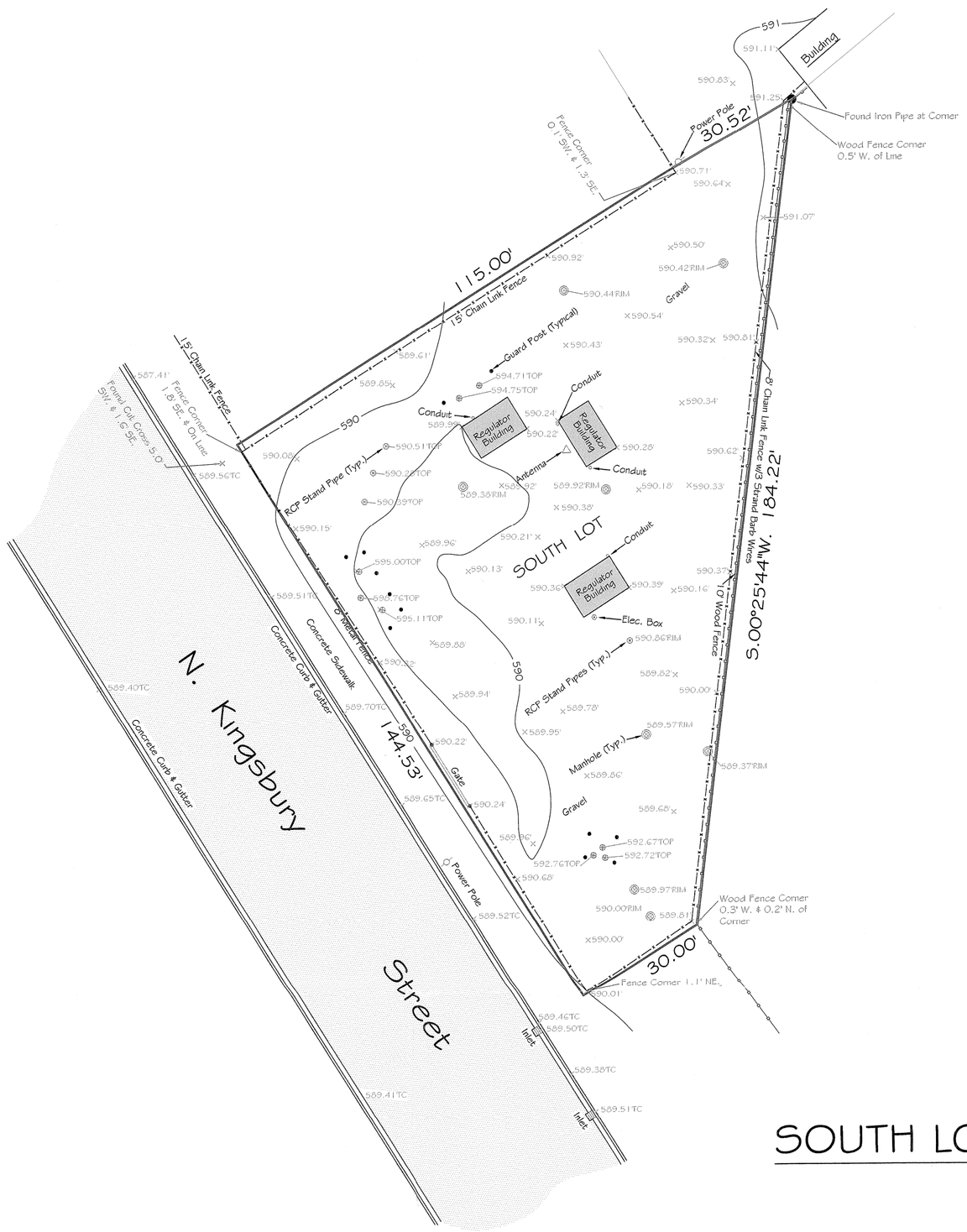

SOUTH LOT

SOUTH LOT LEGAL DESCRIPTION:

THAT PART OF LOTS 6, 7, 8, 9, 18 AND 19 IN BLOCK 7 IN THE SUBDIVISION OF LOTS 1 AND 2 IN BLOCK 8 IN SHEFFIELD'S ADDITION TO CHICAGO IN SECTION 32, TOWNSHIP 40 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEASTERLY CORNER OF SAID BLOCK 7; THENCE NORTHWESTERLY ALONG THE NORTHEASTERLY LINE OF SAID BLOCK 7, 408.43 FEET; THENCE SOUTHWESTERLY AT RIGHT ANGLE TO SAID NORTHEASTERLY LINE, 100.00 FEET FOR A POINT OF BEGINNING; THENCE SOUTHWESTERLY AT AN ANGLE OF 223°58'20" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 184.22 FEET TO A POINT 30 FEET NORTHEASTERLY AS MEASURED PERPENDICULARLY FROM THE SOUTHWESTERLY LINE OF SAID BLOCK 7; THENCE NORTHWESTERLY ALONG SAID SOUTHWESTERLY LINE, 144.57 FEET TO A POINT 240.0 FEET SOUTHEASTERLY OF THE NORTHWESTERLY CORNER OF SAID BLOCK 7, THENCE NORTHEASTERLY AT RIGHT ANGLE TO THE LAST DESCRIBED COURSE, 115.00 FEET; THENCE NORTHEASTERLY AT AN ANGLE OF 178°10'41" MEASURED COUNTERCLOCKWISE FROM THE LAST DESCRIBED COURSE, 30.52 FEET TO THE POINT OF BEGINNING, CONTAINING 12,723 SQUARE FEET OR 0.29 ACRES.

PARENT TRACT P.I.N.: 14-32-417-005

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44 W 540 KESLINGER ROAD
ELBURN, ILLINOIS 60119
WWW.HORIZONSURVEYING.COM
Tel: (630) 365-4100
(815) 754-7755
(888) 754-7755
Fax: (630) 365-4103

DETAILS
of
Hawthorne Regulator Station
1729 N. Kingsbury Street
Chicago, Illinois 60614

PREPARED FOR:
Burns & McDonnell
2601 West 22nd Street
Oak Brook, Illinois 60523-1229
Tel: 630-990-0300 Fax: 630 990-0301

FIELD DATE:	11/20/2004
DRAWING DATE:	2/12/2005
CHECKED BY:	JTS
DRAWN BY:	PS
JOB #	3726POS

SHEET 2 OF 2

APPENDIX B
REMEDIAL ACTION PHOTOGRAPHS
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

Hawthorne Regulator Station
Date: May 14, 2003

Description:

View of exposed utility lines uncovered during 3-foot excavation in area of regulator houses.

Hawthorne Regulator Station
Date: May 19, 2003

Description:

View of 3-foot excavation northeast of regulator houses.

Hawthorne Regulator Station
Date: May 22, 2003

Description:

View of excavator removing asphalt along Marcey Street.

Hawthorne Regulator Station
Date: May 24, 2003

Description:

View of 3-foot excavation adjacent to the building located in the North portion of the Site.

Hawthorne Regulator Station
Date: June 12, 2003

Description:

View of 5,000,000 cubic foot (ft^3) concrete gas holder wall uncovered intact during 3-foot excavation in the North portion of the Site.

Hawthorne Regulator Station
Date: June 12, 2003

Description:

View of the installation of the engineered barrier [40-millimeter (mil) high density polyethene liner] placed over the 5,000,000-ft^3 gas holder wall.

Hawthorne Regulator Station
Date: June 13, 2003

Description:

View of the installation of two sheets of 6-mil visquene approximately 2 feet below ground surface (bgs) in the North portion of the Site in preparation of the soil vapor extraction (SVE) activities.

Hawthorne Regulator Station
Date: June 16, 2003

Description:

View of asbestos abatement activities for the removal of asbestsos coated piping located east of the former 5,000,000-ft^3 gas holder.

Hawthorne Regulator Station
Date: June 19, 2003

Description:

View of suspected drip oil tank found extending offsite along the eastern boundary in the South portion of the Site.

Hawthorne Regulator Station
Date: June 26, 2003

Description:

View of 4.5-foot excavation in progress behind the regulator houses in the South portion of the Site.

Hawthorne Regulator Station
Date: July 1, 2003

Description:

View of excavator breaking the former west gylcol fogger building concrete foundation along Kingsbury Street.

Hawthorne Regulator Station
Date: July 1, 2003

Description:

Removing contents (oil) from suspected oil drip tank, located along the eastern boundary in the South portion of the Site, via vacuum truck for disposal offsite.

Hawthorne Regulator Station
Date: July 10, 2003

Description:

View of excavator direct-loading soil excavated along Kingsbury Street for offsite disposal.

Hawthorne Regulator Station
Date: July 10, 2003

Description:

View of excavation of surface soil on South portion of Site near Kingsbury Street.

Hawthorne Regulator Station
Date: July 18, 2003

Description:

View facing north of the South portion of the Site backfilled with imported clean coarse aggregate before final grade.

Hawthorne Regulator Station
Date: August 1, 2003

Description:

View of protection posts surrounding gas valve after final grading of the Site.

Hawthorne Regulator Station
Date: September 8, 2003

Description:

View of drilling for installation of the SVE well (SVE-2) located in the North portion of the Site.

Hawthorne Regulator Station
Date: September 10, 2003

Description:

View of the trench with piping for the SVE system in the North portion of the Site.

Hawthorne Regulator Station
Date: September 10, 2003

Description:

View of passive vent well (PV2) and SVE (SVE-2) flush mounted well in the North portion of the Site.

Hawthorne Regulator Station
Date: May 13, 2004

Description:

View of SVE trailer and 55-gallon drums. Granular activated carbon (GAC) drums were used to treat SVE extracted vapors prior to emission into the atmosphere in accordance with the Illinois Environmental Protection Agency Joint Construction and Operating Permit (I.D. No. 031600GOP).

Hawthorne Regulator Station
Date: July 1, 2004

Description:

View of 6,900 gallon, double walled, polyethene tank used to hold water from SVE activities.

Hawthorne Regulator Station
Date: May 13, 2004

Description:

View of air monitoring using photo ionization detector (PID) inside the SVE trailer. This sampling port was used to measure the total VOC concentration prior to GAC treatment.

Hawthorne Regulator Station
Date: July 28, 2004

Description:

View of geoprobing activities at confirmation sample location CF02.

Hawthorne Regulator Station
Date: July 28, 2004

Description:

View of geoprobing activities at confirmation sample location CF05.

Hawthorne Regulator Station
Date: June 30, 2005

Description:

View facing east of the lead subsurface soil excavation to approximately 8 feet bgs located in the north portion of the Site.

Hawthorne Regulator Station
Date: July 13, 2005

Description:

View facing north of lead subsurface area after restoration activities.

APPENDIX C
ASBESTOS DOCUMENTATION
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

ANALYTICAL RESULTS

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
NVLAP Accreditation # 101202-0 ; AIHA Accreditation # 101160

NVLAP & AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

Method: EPA-600/M4-82-020

Burns & McDonnell
2601 West 22nd Street
Oak Brook, IL 60523
Phone: 630-990-0300
Fax: 630-990-0301

Client Reference: 29168-4.07
Location: Hawthorne Ave. Station
STAT Batch No.: 240604
STAT Client No.: 1121

Date Received: 05/19/2003
Date Analyzed: 05/20/2003
Date Reported: 05/20/2003
Turn Around Time: 24 Hour

Laboratory Sample	Client Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
240604001	HAS-PWA-001	Chrysotile 10-15%	Binder 80-85% Glass 1-5%
240604002	HAS-PWA-002	NA	
240604003	HAS-PWA-003	NA	

ND = Asbestos Not Detected. NA = Not Analyzed

The use of the NVLAP logo does not imply endorsement by NVLAP or any agency of the US Government.

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

Analyzed by Name : Marcela Jones

Date: 05/20/2003

STAT Analysis Corporation:
2201 West Campbell Park Drive, Chicago, Illinois 60612-3547
Tel: 312.733.0551; Fax: 312.733.2386; e-mail address: STATinfo@STATAnalysis.com

NVLAP

AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

PLM ASBESTOS Analysis Record

Page:___of___

COC No.: 240604

Analyzed By: mg

Date/Time: 5/20/03

QC By: [illegible]

Client Sample Number	Percent Type of Asbestos	Percent Non-Asbestos Components	Laboratory Sample Number
HAS-PWA-001	Chry 10-15	B 80-85 G 1-5	
-002	N/A		
-003			

Comements: Faxed 5/20/03 9:45 MG
" HC 5/22/03 8:[illegible]

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

240604

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: Joan Gonzalez

Laboratory: STAT Analytical Corp.
Address: 2201 W. Campbell Park Drive
City/State/Zip: Chicago, IL 60612
Telephone: (312) 733-0551

Document Control No: HAS-016-2003
Lab. Reference No. or Episode No.:

Project Number: 29168-4.07
Site Name: Hawthorne Ave. Station - Peoples Gas

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: PLM							Remarks
HAS-	PWA-001	DMD	—	2003	—	—	5/16/03	3:15P		X		1	X							~8 ft exposed pipe w/ crack canvas over tar on 2 inch diameter pipe
HAS-	PWA-002	↓	—	↓	—	—	↓	↓		X		1	X							
HAS-	PWA-003	↓	—	↓	—	—	↓	↓		X		1	X							

Sampler (signature): Dona Davis
Sampler (signature):
Custody Seal Number
Special Instructions: Analyze to the 1st positive. ~~If all~~

Relinquished By (signature): 1. Dona Davis — Date/Time 5/16/03 5PM
Received By (signature): DJ / FedX — Date/Time 5/19/03 1045
Ice Present in Container: Yes ☐ No ☒
Temperature Upon Receipt:

Relinquished By (signature): 2. — Date/Time
Received By (signature): — Date/Time
Laboratory Comments:

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
NVLAP Accreditation # 101202-0 ; AIHA Accreditation # 101160

NVLAP & AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

Method: EPA-600/M4-82-020

Burns & McDonnell
2601 West 22nd Street
Oak Brook, IL 60523
Phone: 630-990-0300
Fax: 630-990-0301

Client Reference: 29168-4.07
Location: Hawthorne Ave Station-Peoples Gas
STAT Batch No.: 241035
STAT Client No.: 1121

Date Received: 06/03/2003
Date Analyzed: 06/03/2003
Date Reported: 06/03/2003
Turn Around Time: 24 Hour

Laboratory Sample	Client Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
241035001	HAS-PWB-001	ND	Binder 99-100%
241035002	HAS-PWB-002	ND	Binder 99-100%
241035003	HAS-PWB-003	ND	Binder 99-100%
241035004	HAS-PWC-001	ND	Binder 90-95% Glass 5-10%
241035005	HAS-PWC-002	ND	Binder 90-95% Glass 5-10%
241035006	HAS-PWC-003	ND	Binder 90-95% Glass 5-10%

ND = Asbestos Not Detected. NA = Not Analyzed

The use of the NVLAP logo does not imply endorsement by NVLAP or any agency of the US Government.

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

Analyzed by Name : _____ Date: 06/03/2003

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

241035

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: Joan Gonzalez

Laboratory: STAT Analytical Corp.
Address: 2201 W. Campbell Park Drive
City/State/Zip: Chicago, IL 60612
Telephone: (312) 733-0551

Document Control No: HAS-025-2003
Lab. Reference No. or Episode No.:

Project Number: 29168-4.07
Site Name: Hawthorne Ave. Station - Peoples Gas

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: PCM	Remarks
HAS	PWB-001	DMD	—	2003	—	—	6/2/03	10:30		X			X	black tar on set of 6 inch diameter MGP lines to holder
HAS	PWB-002	↓	—	↓	—	—	↓	10:30		X			X	
HAS	PWB-003	↓	—	↓	—	—	↓	10:30		X			X	
HAS	PWC-001	DMD	—	↓	—	—	↓	10:40		X			X	tar & canvas on large diameter gas line ~30 inch dia
HAS	PWC-002	↓	—	↓	—	—	↓	10:40		X			X	
HAS	PWC-003	↓	—	↓	—	—	↓	10:40		X			X	

Faxed 6/4/03 8:00 MG/HC.

Sampler (signature): Donna Davis
Sampler (signature):
Custody Seal Number
Special Instructions: 24 HR turnaround
Analyze to the 1st positive for each group

Relinquished By (signature): 1. Donna Davis
Date/Time: 6/2/03 5PM
Received By (signature): FedX/DJ
Date/Time: 9 4am 6/3/03
Ice Present in Container: Yes ☐ No ☐
Temperature Upon Receipt:

Relinquished By (signature): 2.
Date/Time
Received By (signature):
Date/Time
Laboratory Comments:

STAT Analysis Corporation:
2201 West Campbell Park Drive, Chicago, Illinois 60612-3547
Tel: 312.733.0551; Fax: 312.733.2386; e-mail address: STATInfo@STATAnalysis.com

NVLAP

AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

PLM ASBESTOS Analysis Record

COC No.: 241035

Analyzed By: [illegible] Date/Time: 6/3/03

QC By: [illegible]

Client Sample Number	Percent Type of Asbestos	Percent Non-Asbestos Components	Laboratory Sample Number
HGS-PWB-001	ND	B 99-100	
HGS-PWB-002	ND	B 99-100	
HGS-PWB-003	ND	B 99-100	
HGS-PWC-001	ND	B 90-95 G 5-10	
HGS-PWC-002	ND	B 90-95 G 5-10	
HGS-PWC-003	ND	B 90-95 G 5-10	

Comements:

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
NVLAP Accreditation # 101202-0 ; AIHA Accreditation # 101160

NVLAP & AIHA Environmental Lead and Industrial Hygiene ACCREDITED LABORATORY

GRAVIMETRIC TRANSMISSION ELECTRON MICROSCOPY ANALYSIS

EPA's "Interim Method for the Determination of Asbestos in Bulk Insulation Samples"
(40 CFR, Part 763, Subpart F, App. A)/ Chatfield (mod. of EPA/600/R-93/116): OSHA reg. 29 CFR 1910.1450

Burns & McDonnell
2601 West 22nd Street
Oak Brook, IL 60523
Phone: 630-990-0300
Fax: 630-990-0301

Client Reference: PO#29168-4.07
Location: Hawthorne Ave Stat-Peoples Gas
STAT Batch No.: 241115
STAT Client No.: 1121

Date Received: 06/05/2003
Date Analyzed: 06/06/2003
Date Reported: 06/06/2003
Turn Around Time: 48 Hour

Laboratory Sample	Client Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
241115001	HAS-PWB-001	N/D	Other 100%
241115002	HAS-PWC-001	N/D	Other 100%

NA = Not Analyzed

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

Analyzed by Name : [signature]
Title : Laboratory Lab Manager
Date: 06/06/2003

Burns & McDonnell

Request for Chemical Analysis and Chain of Custody Record

241085

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: Joan Gonzalez

Laboratory: STAT Analytical Corp.
Address: 2201 W. Campbell Park Drive
City/State/Zip: Chicago, IL 60612
Telephone: (312) 733-0551

Document Control No: HAS-025-2003
Lab. Reference No. or Episode No.:

Project Number: 29168-4.07
Site Name: Hawthorne Ave. Station - Peoples Gas

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: PCM	TEM	TEM gravimetric				Remarks
HAS-	PWB-001	DMD	—	2003	—	—	6/2/03	10:30		X			X	X					black tar on set of 6 inch diameter MGP lines to holder
[redacted]																			
HAS-	PWC-001	DMD	—		—	—		10:40		X			X	X					tar & canvas on large diameter gas line ~30 inch dia
[redacted]																			

Please analyze these two samples by TEM gravimetric 48 HR turnaround Thanks DMD 6/5/03

Faxed 6/4/03 8:00 MG.

Sampler (signature): Donna Davis
Sampler (signature):
Custody Seal Number
Special Instructions: 24 HR turnaround Analyze to the 1st positive for each group

Relinquished By (signature): 1. Donna Davis
Date/Time: 6/2/03 5PM
Received By (signature): FedX/DJ 9:40am
Date/Time: 6/3/03
Ice Present In Container: Yes ☐ No ☐
Temperature Upon Receipt:

Relinquished By (signature):
Date/Time
Received By (signature):
Date/Time
Laboratory Comments:

ASBESTOS WASTE PROFILE

RASB - 7340

WASTE MANAGEMENT

MIDWEST

ASBESTOS WASTE PROFILE SHEET

I. **Generator:** The Peoples Gas Light Coke Co.

Site Address _____ Mailing Address 130 E Randolph Dr

City, State & Zip _____ City, State & Zip Chicago, IL 60601

Generator Contact Alison Millerick Title Sr. ENGINEER Phone 312-240-4832

II. **Contractor:** Specialty Systems of IL, Inc. Contact Scott Baiker

Address 183 West 162nd Street Title Project Manager

City, State & Zip South Holland, IL 60473 Phone (708) 333-4411

III. **Hauler:** _____

Address _____

City, State & Zip _____ Phone _____

IV. **Type of Asbestos Material:** (Describe) Pipe Insulation

X Friable ~155 ____ Non-friable Cat I X Non-friable Cat II ~35LF

Is this a DOT hazardous material? ____ Yes X No If yes, the proper DOT shipping name must be used:

RQ, Asbestos,9,NA2212,III

Removal method(s) (describe) regulated area, wet removal, cut & wrap pipe

Specify wetting agent: X water ____ other (attach MSDS)

V. **Job Type:** ____ Renovation ____ Demolition X Other (describe) remediation/excavation

Please explain "no" responses to the following questions in the space provided below. < 260LF.

If renovation or demolition, has the agency been notified per 40 CFR 61.145 or applicable state/local regulations? NA ____ Yes ____ No

If demolition: Will the asbestos be removed prior to demolition? NA ____ Yes ____ No

Please explain "yes" responses to the following questions in the space provided below.

Associated Material:

mastic removal? (Attach MSDS, if applicable) ____ Yes X No

asbestos contaminated with soil or gravel? ____ Yes X No

asbestos contaminated with Special, RCRA hazardous or TSCA (PCB) waste? ____ Yes X No

VI. **Waste Volume & Units** _____ BULK (Bags) 1 DRUMS X OTHER (describe) roll-off box ~~w/ 155 LF~~

VII. **Disposal approval period requested:** From 6/20/03 To 7/7/03

VIII. **Disposal approval requested at:** X A Subtitle D (Non-Hazardous) Landfill ____ A Subtitle C (Hazardous) Landfill

IX. **Landfill Site Requested:** CID

X. GENERATOR CERTIFICATION: I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS CONTAINS TRUE AND ACCURATE DESCRIPTIONS OF THIS ASBESTOS WASTE MATERIAL, AND ALL RELEVANT INFORMATION REGARDING KNOWN OR SUSPECTED HAZARDS IN THE POSSESSION OF THE GENERATOR HAS BEEN DISCLOSED. WASTE MANAGEMENT WILL BE NOTIFIED IN WRITING OF ANY CHANGES IN THE INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS.

SIGNATURE: Alison Millerick DATE: _____

NAME (type or print): ALISON MILLERICK TITLE: SENIOR ENGINEER

Printed on recycled paper.

GENERATOR'S ASBESTOS WASTE PROFILE INSTRUCTIONS - 7340

I. **Generator Name**—Enter the name of the facility where the waste is generated.
Site Address—Enter the street address (not P.O. Box) where the waste is located.
Mailing Address—Enter the mailing address where related correspondence may be sent.
Generator Contact—Enter the name of a person who can answer questions about the waste.
Title—Enter the title of the generator contact.
Phone—Enter the telephone number (include area code) where the generator contact can be reached during working hours.

II. **Contractor Name**—Enter the name of the contractor responsible for the removal of the asbestos.
Contact Name—Enter the name of a person who can answer questions about the removal of the asbestos.
Title—Enter the title of the contractor contact.
Phone—Enter the telephone number (include area code) where the generator contact can be reached during working hours.
Address—Enter the address of the contractor responsible for the removal of the asbestos.

III. **Hauler Name**—Enter the name of the company responsible for transporting the asbestos.
Address—Enter the street address of the hauling company.
Phone—Enter the telephone number (include area code) of the hauling company.

IV. **Type(s) of Asbestos Material**—Enter the specific type (i.e. transite board, roofing material, pipe insulation) of asbestos material.
- Indicate which of the **friability categories** the asbestos belongs to by checking the appropriate space.
  Friable means any material containing more than 1% asbestos, that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
  Non-friable I means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1% asbestos.
  Non-Friable II means any material, excluding Category I material, containing more than 1% asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- Indicate if this waste is **USDOT Hazardous** material by checking the appropriate space.

Removal Method(s)—Enter any specific method (i.e. scraping, cutting, abrading) used to remove asbestos.
- Indicate which of the **wetting agents** will be used during removal. If other than water, attach a copy of the MSDS for the wetting agent.

V. **Job Type**—Indicate the type of activity generating the asbestos.
if **other** describe. i.e., operations and maintenance activities, unused material, etc.
if **demolition,** indicate whether the asbestos was removed prior to demolition by checking the appropriate space.
if **demolition or renovation,** indicate whether **NESHAP** notification made by checking the appropriate space.
if **NO,** explain why no notification was made.
Associated Material—Indicate whether any of the listed materials are present in the asbestos material. If yes was indicated for any of these, explain in the space provided, or attach additional information.

VI. **Waste Volume and Units**—Enter the amount of asbestos waste that will be generated and transported. Use appropriate units to describe the volume (i.e. cubic yards, pounds). Indicate anticipated method of shipment by checking the appropriate space.

VII. **Disposal Approval Period**—Enter dates of the anticipated disposal period. Allow sufficient time to complete job as profile expiration determined by these dates.

VIII. **Disposal Approval Request**—Indicate any need or preference for disposal at Subtitle C or D landfill by checking the appropriate space.

IX. **Landfill Site Request**—Enter the name of the Landfill facility preferred for disposal.

X. **Generator Certification**—By signing the Asbestos Waste Profile Sheet the generator certifies that the statements are true and accurate with respect to the waste streams listed.
Signature—An authorized employee of the generator must sign this Profile Sheet.
Name—Enter the employee's name.
Date—Enter the date signed.
Title—Enter the employee's title.

ASBESTOS ABATEMENT REPORT

ASBESTOS ABATEMENT
PROJECT MANAGEMENT REPORT

For

BURNS & McDONNELL

At

PEOPLES ENERGY
HAWTHORN REGULATOR STATION
1740 N. MARCEY STREET, CHICAGO, ILLINOIS

EXTERIOR REMOVAL OF UNDERGROUND ACM
THERMAL SYSTEM PIPE INSULATION

JUNE 16, 2003

PROJECT #2003-5662-ENV

Prepared by:
Hygieneering, Inc.
7575 Plaza Court
Willowbrook, IL 60527

June 17, 2003

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SECTION I

PROJECT SUMMARY

PEOPLES ENERGY
HAWTHORN REGULATOR STATION
EXTERIOR REMOVAL OF UNDERGROUND
ACM THERMAL SYSTEM PIPE INSULATION
JUNE 16, 2003

Introduction

Asbestos containing material (ACM) in the form of thermal system pipe insulation was removed from underground of the Hawthorn Regulator Station of Peoples Energy located at 1740 N. Marcey Street, Chicago, Illinois. ACM removed included:

Material	Location	Approximate Quantity
Thermal System Pipe Insulation	Northeast Corner of Construction Site	20 S.F.

This report presents the results of the asbestos project management and air sampling performed by Hygieneering, Inc. (Hygieneering) of 7575 Plaza Court, Willowbrook, Illinois. The asbestos abatement project was authorized by Ms. Donna Davis, Burns & McDonnell.

Hygieneering, Inc. provided an accredited asbestos project manager and air sampling professional to perform on-site asbestos abatement project management and air sampling services.

The asbestos abatement project was performed by Specialty Systems of Illinois, Inc. (SSI) of 183 W. 162nd Street, South Holland, Illinois, on June 16, 2003. SSI is an Illinois Department of Public Health (IDPH) licensed asbestos abatement contractor.

Objectives

The purpose of the asbestos abatement project was to perform removal of asbestos-containing thermal system pipe insulation from underground at the exterior of the Hawthorn Regulator Station of Peoples Energy.

Results

The asbestos abatement work monitored by Hygieneering, Inc. was performed in accordance with asbestos abatement project procedures entitled, Exterior Removal of Underground ACM Thermal System Pipe Insulation at Peoples Energy Hawthorn Regulator Station 1740 N. Macey Street Chicago, Illinois, for Burns & McDonnell 2601 West 22nd Street Oak Brook, IL, Hygieneering, Inc. Project #2003-5662-ENV.

Environmental air monitoring was performed during this removal project to document total airborne fiber concentrations inside and outside the work area during asbestos abatement. Personnel air sampling was performed on SSI asbestos abatement workers to document compliance with OSHA permissible exposure levels during asbestos abatement.

A visual inspection was performed following asbestos abatement to verify the specified ACM had been removed. Abatement air sampling was performed to document the airborne fiber concentration met re-occupancy criteria of 0.01 fibers per cubic centimeter (f/cc). After the abatement sampling results indicated the re-occupancy criteria had been met, the work area was cleared of protective barriers and equipment and the owner was notified. Daily logs and analytical results of air sampling are presented in Section II of this report.

Asbestos-containing waste materials (including abated ACM, disposable coveralls, respirator cartridges, polyethylene sheeting, etc.) were double bagged in 6 mil polyethylene bags and labeled according to EPA waste disposal requirements. A copy of the waste manifest will be forwarded by SSI when received from the landfill.

Analytical Methodology

Air samples were analyzed by Hygieneering, Inc. utilizing the Phase Contrast Microscopy (PCM), NIOSH 7400 Method. Analytical results for these samples are documented in Section II of this report.

Conclusion

The specified asbestos containing materials were abated according to the SBC Services, Inc. requirements and the asbestos abatement work area was cleaned according to project specifications. Abatement air testing results by Phase Contrast Microscopy met re-occupancy criteria for the project. Remaining ACM not included in the scope of this project should be routinely inspected to detect changes in its condition and to ensure it is maintained or removed to prevent environmental exposures.

SECTION II

PROJECT DOCUMENTATION

Project Procedures
Sign In Log
Pre and Post Abatement Checklists
Daily Log
Daily Activity Summary
Air Sample Summaries
Work Area/Air Sample Floor Plan

Hygieneering, Inc.
industrial hygiene, safety and environmental consulting services
7575 Plaza Court, Willowbrook, IL 60521
(630) 654-2550 ■ FAX: (630) 789-3813

Exterior Removal of Underground
ACM Thermal System Pipe Insulation

At

Peoples Energy
Hawthorne Regulator Station
1740 N. Marcey Street
Chicago, Illinois

For

Burns & McDonnell
2601 West 22nd Street
Oak Brook, IL 60523

ASBESTOS REMOVAL PROJECT PROCEDURES

PREPARED BY:

HYGIENEERING, INC.
7575 Plaza Court
Willowbrook, IL 60521
PROJECT # 2003-5662-ENV

June 15, 2003

This asbestos abatement project involves the removal of designated asbestos-containing thermal system pipe insulation that has been uncovered "below-grade" during renovation activities by Burns & McDonnell at the Peoples Energy Hawthorne Regulator Station Facility. The asbestos removal work will be performed in one (1) shift. The work is to be conducted during first shift. Areas adjacent to the asbestos abatement work areas may be occupied on a limited basis during asbestos activities.

The asbestos removal work procedures were designed to be implemented by asbestos abatement workers and supervisors licensed by the Illinois Department of Public Health (IDPH). Hygieneering will not assume any liability resulting from the implementation of these procedures. All personnel performing the work for this project must have completed Owner specific safety training.

ASBESTOS ABATEMENT PROCEDURES

1. **Scope and application.** These procedures specify work practices and engineering controls that must be implemented by the asbestos abatement workers during removal of asbestos-containing thermal system pipe insulation that has been uncovered "below-grade" during renovation activities by Burns & McDonnell at the Peoples Energy Hawthorne Regulator Station Facility. The Contractor shall provide all labor, materials, equipment, training, testing, insurance, bonding, permits and licenses necessary for the execution of asbestos abatement in accordance with all applicable federal, state and local regulations including, but not limited to EPA, OSHA and IDPH rules.

   a) Asbestos-containing thermal system pipe insulation designated for removal are described below:

      - **Work Area – Exterior "Below-Grade" ACM Pipe Insulation –** Removal of ACM pipe insulation associated with the exterior piping uncovered during property renovation activities. There is approximately forty to fifty liner feet of piping associated with this project. The pipe insulation is a tar-like wrap that shall be removed with the piping itself.

        Burns & McDonnell will coordinate the uncovering of the remaining pipe to facilitate the abatement activities.

   b) Abatement operations for ACM removal shall be performed as defined in OSHA 29 CFR 1926.1101 and IDPH Regulations (Section 855.220, (C1-4)) effective March 12, 1999.

2. **Schedule.** The asbestos abatement project shall be conducted during the first shift (9:00 a.m. to 4:30 p.m.) to conduct the work. If the work goes beyond the designated number of shifts or the completion date, the Contractor shall be back charged the additional fees for Hygieneering, Inc. and any fees due to lost production.

3. **Substantial Completion.** Asbestos removal operations will be considered substantially complete following a visual inspection by Hygieneering indicating no materials on surfaces where asbestos operations were performed and the Contractor has successfully met clearance criteria.

4. **Methods of Compliance.** All asbestos abatement work shall be performed in compliance with OSHA regulations for asbestos as defined in 29 CFR 1926.1101 and additional requirements as noted in this specification. Specifically, all work shall include:

   a) Regulated areas. Asbestos work shall be performed within a regulated area demarcated with asbestos warning signs in such a way that access by unauthorized persons is prohibited.

   b) Respirators. All persons entering a regulated area are required to wear a minimum of a powered air-purifying respirator (PAPR) equipped with HEPA cartridges for gross removal activities and a minimum of a half-face respirator for glovebag work. Workers shall provide documentation that includes a physician's written opinion that workers are medically capable of wearing negative pressure respirators and that respirator fit tests have been successfully completed within the past 12 months.

   c) Competent Person. The Contractor shall provide a competent person as defined by OSHA to supervise all asbestos operations. The designated competent person shall provide documentation of IDPH Project Supervisor licensing and training prior to directing or supervising asbestos

abatement operations. A copy of the supervisor's license will be acceptable provided the supervisor has the original (hard card) license for verification by Hygieneering.

d) Licensed asbestos abatement workers. All asbestos abatement workers are required to submit documentation including a current IDPH Asbestos Workers license. Failure to provide requested documentation will result in the worker being asked to leave the work-site until such documentation can be provided. A copy of the workers license will be acceptable provided the worker has the original (hard card) license for verification by Hygieneering.

e) Specific removal work practices. The following specific work practices in addition to those listed elsewhere in the project specifications shall be used for all asbestos operations. At a minimum, the following engineering controls shall be implemented for the removal of thermal system pipe insulation:

i. Regulate and demarcate the work area with asbestos warning signs and barrier tape.
ii. A decontamination area shall be established for the work area to provide an area for workers to decontaminate. Workers shall HEPA vacuum and remove disposable clothing within the decontamination area prior to removing the protective clothing and PPE
iii. Don disposable coveralls equipped with head covering and respiratory protection.
iv. The removal shall be conducted within regulated/demarcated work areas using at least two workers.
v. Abatement contractor shall place one layer of six-mil plastic sheeting under the ACM piping to be removed.
vi. Wet methods shall be employed during all asbestos removal operations.
vii. Abatement contractor shall abate a small section of the tar-wrap at six feet intervals. Hygieneering shall inspect the abated surfaces to ensure that all visible material has been removed. The abatement contractor shall then cut the piping at the abated areas and then wrap the piping with two layers of six-mil plastic sheeting. Proper disposal signs/stickers shall be placed on all the abated/wrapped piping.
viii. Vacuum cleaners equipped with HEPA filters shall be used to collect all debris and dust containing asbestos.
ix. The areas shall remain regulated until a final visual inspection has been completed by Hygieneering, Inc. This shall indicate that the area is ready to be de-regulated.
x. Promptly clean up and properly bag, label and dispose of asbestos wastes and debris in leak tight containers.
xi. All abated surfaces within the regulated work area shall be cleaned and inspected for suspect ACM debris.
xii. Waste shall be transported from the work area to the designated waste holding area for disposal by Peoples Energy per IDPH regulation 855.230. Burns & McDonnell shall coordinate with Peoples Energy for the disposal pick-up/removal.

f) Asbestos disposal procedures. All wastes generated within the regulated area shall be disposed of as asbestos-containing waste in plastic waste bags designed specifically for asbestos waste and shall be labeled in accordance with 29 CFR1910.1200 (f). All ACM waste shall be doubled bagged for disposal and labeled in accordance with 29 CFR1910.1200 (f). The Contractor shall containerize the waste and leave on site at a pre-arranged location as directed by Burns & McDonnell and/or Peoples Energy. Peoples Energy shall arrange for the transportation of asbestos waste to an EPA approved landfill for ACM. Any non ACM waste generated on this project shall be containerized and disposed of as construction debris by the Contractor

g) The Contractor shall meet all the Owner's work practices and safety requirements while performing work at the facility.

5. **Air Testing.** The following requirements apply to environmental and personnel air testing during this project.

   a) Hygieneering will collect environmental air samples during asbestos removal operations to document total fiber concentrations both inside and outside the regulated work areas. Environmental samples will be analyzed by PCM.

   b) Hygieneering will conduct final visual inspections to document the designated ACM pipe insulation has been properly removed within the abatement work area.

6. **Submittals.** The contractor shall submit personnel documentation as required by IDPH and copies of all notifications and waste documentation.

7. **Safety**

   a) The abatement Contractor alone shall be responsible for the safety, efficiency, and adequacy of his plan, appliances, and methods, and for any damage that may result from their improper removal, construction, maintenance, or operation. He shall erect, and properly maintain at all times as required by the conditions and progress of the work, proper safeguards for the protection of workmen and the public and shall post danger warnings against hazards created by the construction operations. He shall designate a responsible member of his organization on the work, whose duty shall be the prevention of accidents. In the absence of notice to the contrary, filed in writing to Hygieneering, Inc., this person shall be the Superintendent of the Contractor.

   b) The Contractor shall assume all responsibility for any toxic effects to workers of the air supplied to respirators or of encapsulants, wetting agents, and any other chemical agents, and the disposal of said agent and any residual toxic damaging residues to personnel or property.

   c) Electrical power sources are available at the site for the Contractor's usage. The Contractor will provide all material and labor to extend the electrical services to the work areas in the building at the direction of a licensed electrician. The Contractor is to verify electrical voltage available at the site. The cost of the building source electrical power will be paid by the Owner.

8. **Inspection By Abatement Contractor**

   a) The abatement Contractor acknowledges and agrees that he has an indivisible, indelible, nontransferable and contractual obligation to the Owner to make inspections of his own work; and shall supervise and superintend performance of the work in such manner as to enable him to confirm, certify, and corroborate at all times that all work has been executed strictly, literally, rigidly, and inflexibly in accordance with the methods, materials, regulations, and required standards of cleaning designated herein or on drawings as a minimum.

   b) No provision of this paragraph nor any inspection of the work by Owner, Hygieneering, Inc., testing laboratory, or engineers employed by the Owner or Hygieneering, Inc. shall in any way diminish, relieve, or alter said responsibility and undertaking of the Contractor; nor shall the omission of any of the foregoing to discover or to bring to the attention of the Contractor the existence of any work or materials injured or done not in accordance with contract documents in any way diminish, relieve, or alter such obligation of the Contractor nor shall the aforesaid omission diminish or alter the rights or remedies of the Owner set forth in the contract documents.

9. **Exposure Monitoring By The Contractor**

a) The bidding Contractor shall retain a qualified industrial hygiene firm to provide the needed OSHA 29 CFR 1926.1101 Personnel Sampling.

b) The use of a testing laboratory by the Owner for Owner's testing and to conduct the specified clearance testing does not relieve the contractor of his responsibility for providing tests required by Federal and State regulations, codes, and standards for the protection and safety of his employees and for any other purpose.

c) Copies of air monitoring results by Hygieneering, Inc. will be available to the Contractor.

d) Copies of all exposure monitoring reports by the Contractor's testing service shall be submitted to Hygieneering, Inc. daily (within 24 hours of completion of the testing).

10. **Contractor's Responsibility For Damages**

a) After the final clean-up sequence and the final inspections have been conducted and acknowledged, Hygieneering, Inc., and the Contractor shall inspect the entire cleared work area for damaged items.

b) The Contractor will repair and/or replace all damaged materials that are found to have been made during the course of the asbestos removal work and clean-up procedure. The damaged material may include, but not to be limited to, the following: water and/or tape damage to wall surfaces, (drywall, concrete block glazed tile), floor surface (carpet, floor tile, ceramic tile), doors and hardware, plaster ceiling surfaces, fixed equipment, wall paneling, lighting fixtures, mechanical ductwork, electrical, communication, and security fire alarm systems.

c) Repair shall mean that the item(s) are returned to their original state, as a minimum, as determined by the Owner.

11. **Insurance**

The successful Contractor shall meet the following insurance requirements:

a) The Contractor and all subcontractors shall provide a Certificate of Insurance naming Burns & McDonnell, the Owner and Hygieneering, Inc. as certificate holders and as additional insured. The certificate shall contain a 30-day notification provision to Burns & McDonnell, the owner and Hygieneering, Inc. prior to cancellation or modification of the policy.

b) Commercial General Liability insurance including Products/ Completed Operations, Owners and Contractors Protective Liability and Broad Form Contractual Liability with the exclusion pertaining to explosion, collapse and underground Property Damage hazards eliminated. The limit of liability shall not be less than the following:

General Aggregate	$2,000,000
Products and Completed Operations	$1,000,000
Personal and Advertising Injury	$1,000,000
Each Occurrence	$1,000,000
or - Combined Single Limit	$1,000,000

c) Business Automotive Liability Insurance including owned, hired and non-owned automobiles with limits of not less than the following:

Each Person for Bodily Injury	$1,000,000

Each Occurrence for Bodily Injury	$1,000,000
Each Occurrence for Property Damage	$1,000,000
or - Combined Single Limit	$1,000,000

d) Statutory Worker's Compensation Insurance, including occupational disease with Employer's Liability limit not less than the following:

Employers Liability:	
Each Accident	$1,000,000
Disease - Policy Limit	$1,000,000
Disease Each Employee	$1,000,000

e) Umbrella Liability

Excess Limits	$2,000,000

Hygieneering, Inc.
industrial hygiene, safety and environmental consulting services
7575 Plaza Court, Willowbrook, IL 6052
(630) 654-2550 ■ FAX: (630) 789-381

Pre Abatement Checklist

Client: Burns + McDonnell
Project: Hawthorne
Date: 6/16/03
Senior Project Manager: Brad Karich
Contractor(s): SSI

Project #: 2003-5662-E
Location: 1701 N Kingsbury Street
Hours: 9:00A - 10:00A
Onsite Project Manager:

Complete with Yes, No, or N/A

yes 1. Asbestos Notifications-EPA (City of Chicago and Cook County, If Applicable)
yes 2. Emergency Phone List
yes 3. Emergency Action Plan For Evacuation
yes 4. Warning Signs Posted
yes 5. Fire Extinguishers
yes 6. Contractor Employee Checklist
(SS#'s, medical exams, worker licenses, EPA certificates)
yes 7. Work Plan/Decon Unit Sketch
yes 8. Work Area Preparation
NA a. Critical Barriers Established
n/a b. 6 mil. Poly on Floor ☐ Layers
n/a c. Taped or Glued Seams @ 12" Intervals
n/a d. Run Plastic Up Walls From Floor 24"
n/a e. Plasticize All HVAC Grilles, Smoke Detectors, Windows & Doors
n/a f. 4 mil. Poly on Walls ☐ Layers
n/a g. Shut Down HVAC Equipment
n/a h. Air Filtration Units Set For 4 Air Changes/Hour (-0.02 Inches)
n/a i. Check For Air Tightness, Edges Sealed & Checked w/ Smoke Tube
n/a j. Walk Off Pan In Front of Equipment Room
n/a h. Power Locked Out/ Tagged Out & GFCI Power Supply
yes 9. Decontamination Unit Preparation
yes a. 6 mil. Poly on Floor ☐ Layers
n/a b. 4 mil. Poly on Walls ☐ Layers
n/a c. Shower - Water Tight Construction
n/a d. Air Lock Curtains - Three Flaps "Z" Lock (Weighted Curtains)
n/a e. Check For Air Tightness, Edges Sealed & Checked w/ Smoke Tube
n/a 10. Shower
n/a a. Hot & Cold Water, Filtered to 5 Microns
n/a b. Soap, Shampoo & Towels
n/a c. Elevated Drain, 4" Sealed Catch Basin
yes 11. MSDS For All Chemicals To Be Used On The Project
yes 12. Safety Equipment On Site & In Working Order
(Respirators, GFCI, Safety Belts, Hard Hats, etc.)
yes 13. Abatement Equipment On Site & In Working Order
(HEPA Vacuums, Negative Air Units, Sprayers, Ladders, Scaffolds)

Notes/Comments:

Project Manager on Site: HS Date: 6/16/03

Hygieneering, Inc.
industrial hygiene, safety and environmental consulting services
7575 Plaza Court, Willowbrook, IL 60521
(630) 654-2550 ■ FAX: (630) 789-3813

Post Abatement Checklist

Client: Burns & McDonnell
Project: Hawthorne
Date: 6/16/03
Senior Project Manager: Brad Karich
Contractor(s): SSI

Project #: 2003-5662-E
Location: 1701 N Kingsbury Street
Hours: 9:00A - 10:00A
Onsite Project Manager: HS

Complete all fields with Yes, No, or N/A

yes 1. POST REMOVAL VISUAL INSPECTION OF WORK AREAS - FREE OF DEBRIS:
- n/a Beams & Other Horizontal Surfaces Above The Floor
- yes Pipes
- n/a Ventilation Equipment
- n/a Ducts
- n/a Lights
- n/a Porous Concrete Surfaces

n/a 2. POLYETHYLENE SHEETING REMOVAL - VISUAL INSPECTION FINDINGS
- n/a Any Damage To Floor Noted
- n/a Any Damage To Walls/Ceilings
- n/a Any Damage To Windows/Doors
- n/a Doors Rehung In Place
- yes All Evidence Of ACM Debris Removed From Work Area
- n/a Wet Wipe Floors/Walls

n/a 3. CLEARANCE AIR SAMPLING CONDUCTED
- n/a Aggressive Sampling
- n/a Clearance Air Sampling Results Equal To Background Samples

n/a 4. PUNCH LIST COMPLETE AND GIVEN TO CONTRACTOR

yes 5. NOTIFY CLIENT OF PROJECT COMPLETION

yes 6. All ACM WASTE TRANSPORTED OFF SITE

yes 7. ACM DISPOSAL DOCUMENTATION AVAILABLE

Notes/Comments:

Project Manager on Site: HS Date: 6/16/03

Hygieneering, Inc.
industrial hygiene, safety and environmental consulting services
7575 Plaza Court, Willowbrook, IL 60521
(630) 654-2550 Fax: (630) 789-3813

SIGN IN LOG

Client: Burns + McDonnell
Project: Hawthorne
Date: 6/16/03
Senior Project Manager: Brad Karich
Contractor(s): SSI
Project #: 2003-5662-E
Location: 1701 N Kingery Street
Hours: 9:00A - 10:00A
Onsite Project Manager:

Description of work during shift: ___ Preclean ___ Prep ___ Clean ___ Glovebag
___ Repair/ Operations & Maintenance Work ☒ Gross Removal ___ Tear down ___ Clearance

☒ General Site Access or ☐ Containment Entry

Name (Please Print)	Asbestos License Number	In	Out
Holly Simerly	Hygieneering	9:00	10:00
Paul Kuehn	1005104	9:00	10:00
Ignace Cuants	057294790	9:00	10:00

Hygieneering, Inc.
industrial hygiene, safety and environmental consulting services
7575 Plaza Court, Willowbrook, IL 60521
(630) 654-2550 Fax: (630) 789-3813

Daily Log

Client: Burns + McDonnell
Project: Hawthorne
Date: 6/16/03
Senior Project Manager: Brad Karich
Contractor(s): SSI

Project #: 2003-5662-E
Location: 1701 N Kingsbury Street
Hours: 9:00A - 10:00A
Onsite Project Manager: ____

Description of work during shift: ___ Preclean ___ Prep ___ Clean ___ Glovebag ___ Repair/ Operations & Maintenance Work X Gross Removal ___ Tear down ___ Clearance

Work Practices

Adequate PPE/ Respirator Type	X HM	___ PAPR	X Yes	___ No
Proper Removal Techniques			X Yes	___ No
Wet Methods			X Yes	___ No

Inspection Observations

Visual Inspection of Day's Performance (Entry Times) #1 throughout #2 ____ #3 ____

	Yes	No	Not Applicable
Enclosure Smoke Tested	___	___	X
Proper Warnings/ Signs	X	___	___
Emergency Equipment in Place	X	___	___
Intact & Functional Enclosures	___	___	X
Air Filtration Units Operating (#)	___	___	X
HEPA Filters Inspected	___	___	X
Decon Unit:			
Wet Decon Unit Intact, Functional, Clean & Properly Equipped	___	___	X
Dry Decon Unit Clean & Properly Equipped (HEPA Vacuum)	X	___	___
Manometer Onsite (Required for IDPH and OSHA Class I Work)	___	___	X

Manometer Readings (Time and Reading) 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____ 7 ____

	Yes	No	Not Applicable
Negative Pressure Maintained	___	___	X
GFCI Tested with GFCI Tester	___	___	X
Debris Adequately Wet, Bagged, Sealed and Labeled	X	___	___
Site Access Secured at End of Shift	X	___	___
Dumpster Secured at End of Shift	___	___	X

Air Monitoring and Sample Collection

	Yes	No	Not Applicable
Visual Inspection of this Shift's Work	X	___	___
Sampling	X	___	

Backgrounds # 0 30 Min Excursion Limit #: 0 Personnel #: 1
Environmentals (Inside Work Area) # 2 Environmentals (Outside Work Area)# 1
Clearance [TEM or PCM (circle one)]: # 0 Negative Air Exhaust # 0 Blanks # 02

	Yes	No	Not Applicable
On Site Analysis	___	___	X
Bulk Material Samples #	___	X	___
Analytical Request Forms Completed:	X	___	___

On Site Documentation

	Yes	No		Yes	No
Paperwork Completed	X	___	Photos Taken	___	X
Daily Logs	X	___	Daily Activity	X	___
Air Sample Summary	X	___	Sample Location Map	X	___
Sign In Log	X	___	Worker Checklist	X	___
Any Accident/ Injuries				___	X
Office Updated Towards End of Shift:				X	___

Quantity of Material Removed ____ Number of Bags/Barrels ____ % Complete 100%

Comments: ____

Project Manager Signature: HS

10/99

Hygieneering, Inc.
industrial hygiene, safety and environmental consulting services
7575 Plaza Court, Willowbrook, IL 60521
(630) 654-2550 Fax: (630) 789-3813

Air Sample Summary

Client: Burns + McDonnell
Project: Hawthorne

Project #: 2003-5662-E
Location: 1701 N Kingsbury

Date: 6/16/03
Hours: 9:00A-10:00A

Analytical Data

Sample ID#	Pump #	Flow Rate (L/min) Pre	Post	Actual	Sampling Event Start 1	Stop 1	Start 2	Stop 2	Duration (minutes)	Volume (Liters)	Fibers/Field	Fibers/Cubic Centimeter	8-Hour TWA
PO1	LO VOL	2.0	2.0	2.0	9:20A	9:40A	n/a	n/a	20	40	1/100	0.03	<0.01
EO1	LO VOL	2.0	2.0	2.0	9:20A	9:40A			20	40	2/100	0.02	n/a
EO2	LO VOL	2.0	2.0	2.0	9:20A	9:40A			20	40	1/100	0.01	n/a
EO3	LO VOL	2.0	2.0	2.0	9:20A	9:40A			20	40	1/100	0.01	n/a
BLK1	n/a	n/a	n/a	n/a	n/a	n/a			n/a	n/a	0/100	<0.01	n/a
BLK2	n/a	n/a	n/a	n/a	n/a	n/a			n/a	n/a	0/100	<0.01	n/a
					Before Break		After Break						

Descriptive Information

Sample ID#	Sample Type	Worker's Name	Social Security #/ IDPH #	In/ Out	Location	Activity	Respirator Type
PO1	PRS	Ignacio Cervantes	057294790	IN	throughout trench	REM	HM
EO1	ENV	n/a	n/a	IN	east side of area above trench	REM	n/a
EO2	ENV	n/a	n/a	IN	west side of area above trench	REM	n/a
EO3	ENV	n/a	n/a	OUT	outside area, south of area	REM	n/a
BLK1	Blank	n/a	n/a	n/a	n/a	n/a	n/a
BLK2	Blank	n/a	n/a	n/a	n/a	n/a	n/a

Key To Abbreviations

Sample Type	Location	Activity	Respirator	Calculation
BGD = Background	IN = Inside Work Area	PRCLN = Pre Clean	HM = Half Mask	f/cc = fibers/fields/volume X 49.04
ENV = Environmental	OUT = Outside Work Area	PREP = Preparation	FF = Full Face	8 hour TWA = $\frac{C_1 X T_1 + C_2 X T_2 + \ldots C_n X T_n}{480}$
HEX = HEPA Exhaust		REM = Gross Removal	P = Powered	C = Concentrations from Above (fcc)
CL = Clearance		GLBG = Glovebag Removal	APR = Air Purifying Respirator	T = Time per Sample from Above
PRS = Personnel (full shift)		CLN = Clean (#)	SA = Supplied Air	
EL = 30 Min Excursion Limit		O&M = Operations & Maintenance	N/A = Not Applicable	

Calibration by: MS Sampling by: MS Analysis by: MB

Hygieneering, Inc.
industrial hygiene, safety and environmental consulting services
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(630) 654-2550 ■ FAX: (630) 789-381

Daily Activity Summary

Client: Burns & McDonnell
Project: Hawthorne
Date: 6/16/03
Senior Project Manager: Brad Karich
Contractor(s): SSI

Project #: 2003-5662-E
Location: 1701 N Kingsbury Street
Hours: 9:00A - 10:00A
Onsite Project Manager:

Description of work during shift: ___ Preclean ___ Prep ___ Clean ___ Glovebag
___ Repair/ Operations & Maintenance Work X Gross Removal ___ Tear down ___ Clearance

Activity Description

Time:	
9:00	arrived onsite met. w/ SSI and Brad
9:20	pumps started @ 9:20 2 environmental pumps inside area 1 personal pump inside area
	1 environmental sample outside area
9:30	5 workers wearing tyvek and 1/2 faces sawed approximately 20 feet of pipe and placed
	pipe in 1 barrel using wet methods
	cuts on pipe made with electrical saw
9:40	pumps were stopped area was inspected, waste was removed
10:00	Hygieneering and SSI was offsite

Signature: HS

Page ____ of _____

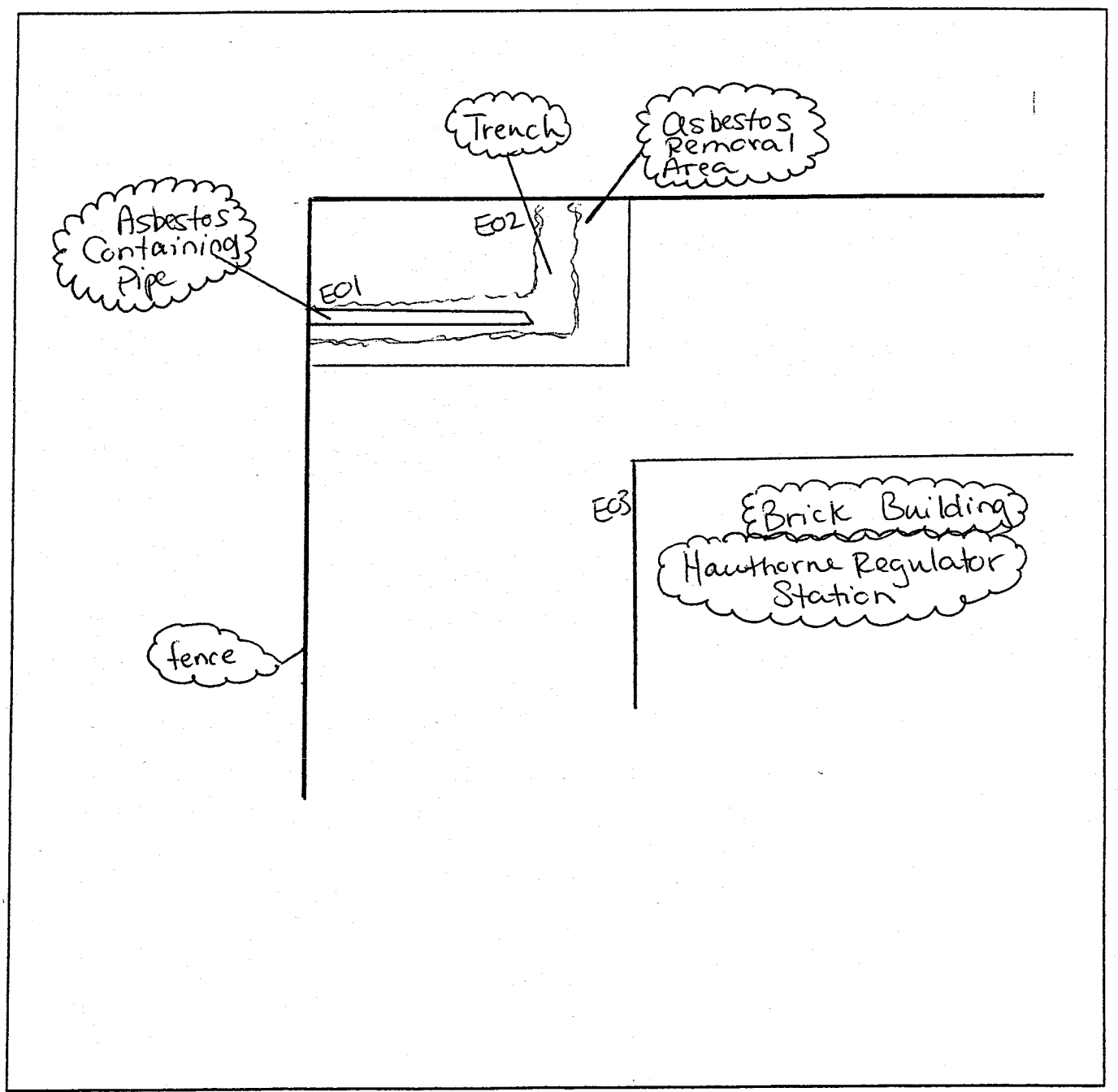
Hygieneering, Inc.
industrial hygiene, safety and environmental consulting services
7575 Plaza Court, Willowbrook, IL 60521
(630) 654-2550 Fax: (630) 789-3813

Work Area/Air Sample Floor Plan Map

Client: Burns & McDonnell
Project: Hawthorne
Date: 6/16/03
Senior Project Manager: Brad Karich
Contractor(s): SSI

Project #: 2003-5662-E
Location: 1701 N Kingsbury Street
Hours: 9:00A - 10:00A
Onsite Project Manager:

Description of work during shift: ___ Preclean ___ Prep ___ Clean ___ Glovebag
___ Repair/ Operations & Maintenance Work X Gross Removal ___ Tear down ___ Clearance



Note: Sketch or copy a detailed floor plan of the work area and adjacent areas.

W:\Eschenbaum\Paperwork\Sample Location Map

SECTION III

ASBESTOS ABATEMENT CONTRACTOR DOCUMENTATION

Abatement Worker Submittals

State of Illinois A 132934

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

ASBESTOS WORKER LICENSE

EXPIRATION DATE	CATEGORY	I.D. NUMBER
02/01/2004	057	057294790

IGNACIO CERVANTES

ASBESTOS WORKER LICENSE

THIS LICENSE IS NOT VALID IF YOUR COURSE CERTIFICATE IS NOT CURRENT.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT ASBESTOS LICENSE # 192716058

INSPECTOR ☐ PLANNER ☐ DESIGNER ☐

SUPERVISOR ☐ WORKER ☒ WASTE DISP. MGR. ☐

Ignacio Cervantes

Expiration Date: 05/28/2003

BIRTH DATE: 12/27/1969

SEX: M

EYE COLOR: BRO

HAIR COLOR: BRO

HEIGHT: 5-06

WEIGHT: 150

1999

This is to certify that

Ignacio Ceruantes

453-99-1498

Has Satisfactorily Completed Training in Accordance with Applicable Rules and Regulations

Confined Space Entry and Gas Monitoring

Completed: October 30, 1999 Certificate

Expires: October 30, 2000 CSE9910302208

Occupational Training & Supply, Inc.

12601 S. Springfield • Alsip, IL 60803 • 708 / 385-1325

SOCIAL SECURITY

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

453-99-1498

THIS NUMBER HAS BEEN ESTABLISHED FOR

IGNACIO CERVANTES PATINO

Ignacio Cervantes P.

SIGNATURE

OSHA

U.S. Department of Labor

Occupational Safety and Health Administration

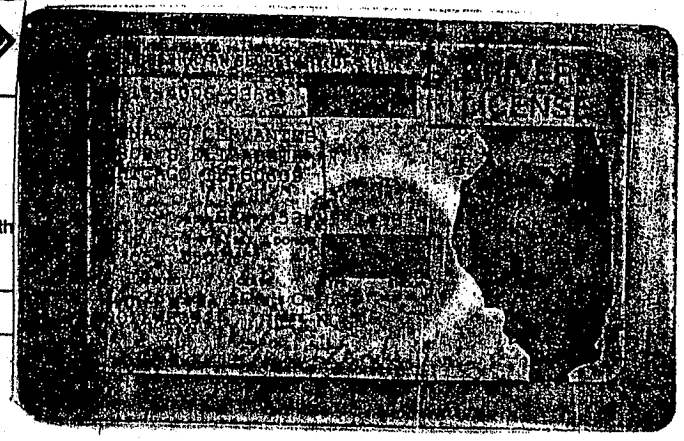
Ignacio Cervantes

has successfully completed a 10-hour Occupational Safety and Health Training Course in

Construction Safety & Health

7/24 19 99

(Trainer)



ASBESTOS WORKER

Issued By

STATE OF WISCONSIN

Dept. of Health & Family Services

IGNACIO CERVANTES

4808 S ELIZABETH

CHICAGO IL 60609

		150 lbs	5' 06"
AWW-13039	10/13/2003	12/27/1969	Male

Training due by: 10/13/2003

Occupational Training & Supply, Inc.

12601 S. Springfield • Alsip, IL 60803 • 708 / 385-1325

Ignacio Cervantes

453-99-1498

has successfully completed the 8 hour Asbestos Abatement Worker Refresher course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health and the Indiana Department of Environmental Management for purposes of accreditation in accordance with EPA 40 CFR 763, Asbestos Hazard Emergency Response Act (AHERA) and TSCA Title II.

Asbestos Abatement Worker Refresher

Course Date: October 12, 2002
Expiration Date: October 12, 2003

Exam Date: October 12, 2002
Certificate: AWR0210122584

2002

Kathy Nicholson, Director

OCCUPATIONAL HEALTH, INC.
205 W. RANDOLPH STREET • CHICAGO, IL 60606 • (312) 641-1449 • FAX (312) 641-1714 • WWW.USOHCLINIC.COM

DOCUMENTATION: MEDICAL FITNESS FOR ASBESTOS REMOVAL AND RESPIRATOR USE

Case # 432965 Exam Date 5/22/03

Name IGNACIO CERVANTES Age 33 Sex (M) F

Date of Birth 12/27/69 SS# 453-99-1498

FITNESS CRITERIA

1. This is to certify, in accordance with the OSHA Asbestos Standard, 29 CFR 1926 1101 (M) (1) (2) (3) and (4) and 29 CFR 1910 1001, I have examined the above mentioned individual;

2. Based on my findings, I have determined this individual may use a respiratory device while performing his/her required employment services;

3. The results of my examination have not detected a medical condition which would place the employee at an increased risk of material health impairment from exposure to asbestos;

4. In accordance with OSHA requirement, I have informed the above named individual of the results of his/her medical examination and of any medical condition that may result from his/her exposure to asbestos, and

5. I have informed the above named individual of the health risks involved in smoking, of synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer

PHYSICIAN'S APPROVAL

It is my medical opinion that the above-named individual is medically fit to engage in asbestos removal and wear respiratory protective equipment as required by the Illinois Department of Public Health (Asbestos Abatement Act Rules and Regulations, Section 855 60) and OSHA 29 CFR 1926 1101 M (1) (2) (3) and (4) and OSHA 29 CFR 1910 1001

Physician's Signature _____ Date 5-22-03

Specialty Systems of Illinois, Inc.

Acknowledgment Form - Fit Test

EMPLOYEE: Ignacio Cervantes SS#: 463-99-1198

I UNDERSTAND THAT THE COMPONENTS LISTED BELOW ARE PART OF THE SPECIALTY SYSTEMS OF ILLINOIS, INC. RESPIRATOR PROTECTION PROGRAM.

ADDITIONALLY, I HAVE PARTICIPATED IN AND BEEN INSTRUCTED TO MY SATISFACTION IN EACH OF THESE SUBJECTS INCLUDING THE PROPER USE AND CARE OF THE RESPIRATORY EQUIPMENT ISSUED TO ME. I FURTHER ACKNOWLEDGE THAT I HAVE UNDERGONE AN IRRITANT SMOKE QUALITATIVE FIT TEST AND REALIZE THAT I MUST BE RE-TESTED EVERY TWELVE (12) MONTHS OR UPON PHYSICAL CHANGE (i.e. weight gain or loss of seven pounds or more, facial injury, etc.) UTILIZING THIS METHOD.

"SSI" RESPIRATOR PROGRAM COMPONENTS
- ANNUAL MEDICAL EXAMINATIONS
- WRITTEN RESPIRATOR PROCEDURE
- ASSIGNMENT OF RESPIRATOR
- RESPIRATOR FIT TEST
- POSITIVE/NEGATIVE PRESSURE TEST
- IRRITANT SMOKE TEST
- EQUIPMENT CLEANING AND DISINFECTING METHODS
- PERIODIC SUPERVISORY INSPECTION

TEST: Half Face Respirator Manufacturer Type/Size/Model:

3M	S-7501/37081	M-7502/37082	LG-7503/37083
NORTH	S-7700-30S	M-7700-30M	LG 7700-30L
Initial Fit OK			YES ✓ NO
Negative Pressure Test			YES ✓ NO
Positive Pressure Test			YES ✓ NO
Irritant Smoke Test			YES ✓ NO
Sweetener Test			YES ✓ NO
Isoamyl Acetate Test			YES ✓ NO

TEST: P.A.P.R. Respirator Manufacturer Type/Size/Model/:

3M	S-51000	M-6800PF	LG-53000
MSA	S-487854	M-487852	LG-487854
Initial Fit OK			YES ✓ NO
Negative Pressure Test			YES ✓ NO
Positive Pressure Test			YES ✓ NO
Irritant Smoke Test			YES ✓ NO
Sweetener Test			YES ✓ NO
Isoamyl Acetate Test			YES ✓ NO

SUPERVISOR: [illegible] DATE: [illegible]

EMPLOYEE SIGNATURE: [illegible] DATE: [illegible]

RE-TEST DATE: 1-25-04

An affiliate of Specialty Systems Incorporated
The Asbestos Management Group
183 W. 162nd Street, South Holland, IL 60473
708.333.4411

State of Illinois A 137812

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

ASBESTOS PROFESSIONAL LICENSE

EXPIRATION DATE	CATEGORY	I.D. NUMBER
05/15/2004	5319	100-05104

PAUL KUEHN

SUPERVISOR/WORKER

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT ASBESTOS LICENSE # 192201053

INSPECTOR ☐ PLANNER ☐ DESIGNER ☐

SUPERVISOR ☒ WORKER ☐ WASTE DISP. MGR. ☐

Paul T. Kuehn

Expiration Date: 09/10/2003

BIRTH DATE: 09/25/1965
SEX: M
EYE COLOR: GRN
HAIR COLOR: BLO
HEIGHT: 5-07
WEIGHT: 165

ASBESTOS SUPERVISOR

Issued By

STATE OF WISCONSIN

Dept. of Health & Family Services

PAUL THOMAS KUEHN
1810 W PRATT BLVD
CHICAGO IL 60626

COPY

		165 lbs	5'-07"
ACS-308	12/27/2003	09/25/1965	M

Training due by: 12/27/2003

State of Illinois A 138032

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

EXPIRATION DATE	CATEGORY	I.D. NUMBER
03/31/2004	5317	L- 003615

Paul Kuehn

LEAD SUPERVISOR LICENSE

This is to certify that

Paul Kuehn

480-98-5246

Has Satisfactorily Completed Training in Accordance with Applicable Rules and Regulations

Mold Remediation

Completed: January 06, 2002
Expires: January 06, 2003

Certificate MR020106067

2002

Occupational Training & Supply, Inc.
12601 S. Springfield • Alsip, IL 60803 • 708 / 385-1325

Illinois

Jesse White - Secretary of State

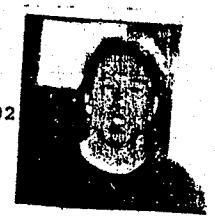
NUMBER K500-6996-5273-04-22-01

PAUL T KUEHN
1810 W PRATT BLVD
CHICAGO IL 60626

Birthdate 09/25/1965
Male 5'07" Eyes
Restrictions: 1 - CORRECTIVE LENSES
Effective with COR Standard

LICENSE NUMBER: 02-6016S

EXPIRATION DATE: 10/13/2002



NAME: PAUL KUEHN
ADDRESS: 1810 PRATT BLVD
CITY STATE ZIP: CHICAGO IL 60626
SOCIAL SECURITY NUMBER: 480-98-5246

Occupational Training & Supply, Inc.

12601 S. Springfield • Alsip, IL 60803 • 708 / 385-1325

Paul Kuehn

480-98-5246

has successfully completed the 8 hour Asbestos Contractor/Supervisor Refresher course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health and the Indiana Department of Environmental Management for purposes of accreditation in accordance with EPA 40 CFR 763, Asbestos Hazard Emergency Response Act (AHERA) and TSCA Title II.

Asbestos Contractor/Supervisor Refresher
Project Supervisor Refresher

Course Date: October 12, 2002
Expiration Date: October 12, 2003

Exam Date: October 12, 2002
Certificate: ASR0210122621

2002

Kathy Nicholson, Director

OCCUPATIONAL HEALTH, INC.
205 W. RANDOLPH STREET • CHICAGO, IL 60606 • (312) 641-1449 • FAX (312) 641-1714 • WWW.USOHCLINIC.COM

DOCUMENTATION: MEDICAL FITNESS FOR ASBESTOS REMOVAL AND RESPIRATOR USE

Case # 42117 Exam Date 3/5/03

Name KUEHN, PAUL Age 37 Sex (M) F

Date of Birth 9/25/65 SS# 480-98-5246

FITNESS CRITERIA

1. This is to certify, in accordance with the OSHA Asbestos Standard, 29 CFR 1926.1101 (M) (1) (2) (3) and (4) and 29 CFR 1910.1001, I have examined the above mentioned individual;

2. Based on my findings, I have determined this individual may use a respiratory device while performing his/her required employment services;

3. The results of my examination have not detected a medical condition which would place the employee at an increased risk of material health impairment from exposure to asbestos;

4. In accordance with OSHA requirement, I have informed the above named individual of the results of his/her medical examination and of any medical condition that may result from his/her exposure to asbestos, and

5. I have informed the above named individual of the health risks involved in smoking, of synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

PHYSICIAN'S APPROVAL

It is my medical opinion that the above-named individual is medically fit to engage in asbestos removal and wear respiratory protective equipment as required by the Illinois Department of Public Health (Asbestos Abatement Act Rules and Regulations, Section 855.60) and OSHA 29 CFR 1926.1101 M (1) (2) (3) and (4) and OSHA 29 CFR 1910.1001

Physician's Signature [illegible] Date 3/5/03

Specialty Systems of Illinois, Inc.

Acknowledgment Form - Fit Test

EMPLOYEE: Paul Kluehn SS#: 480-98-5246

I UNDERSTAND THAT THE COMPONENTS LISTED BELOW ARE PART OF THE SPECIALTY SYSTEMS OF ILLINOIS, INC. RESPIRATOR PROTECTION PROGRAM. ADDITIONALLY, I HAVE PARTICIPATED IN AND BEEN INSTRUCTED TO MY SATISFACTION IN EACH OF THESE SUBJECTS INCLUDING THE PROPER USE AND CARE OF THE RESPIRATORY EQUIPMENT ISSUED TO ME. I FURTHER ACKNOWLEDGE THAT I HAVE UNDERGONE AN IRRITANT SMOKE QUALITATIVE FIT TEST AND REALIZE THAT I MUST BE RE-TESTED EVERY TWELVE (12) MONTHS OR UPON PHYSICAL CHANGE (i.e. weight gain or loss of seven pounds or more, facial injury, etc.) UTILIZING THIS METHOD.

"SSI" RESPIRATOR PROGRAM COMPONENTS
- ANNUAL MEDICAL EXAMINATIONS
- WRITTEN RESPIRATOR PROCEDURE
- ASSIGNMENT OF RESPIRATOR
- RESPIRATOR FIT TEST
- POSITIVE/NEGATIVE PRESSURE TEST
- IRRITANT SMOKE TEST
- EQUIPMENT CLEANING AND DISINFECTING METHODS
- PERIODIC SUPERVISORY INSPECTION

TEST: Half Face Respirator Manufacturer Type/Size/Model:

3M	-	S-7501/37081	~~M-7502/37082~~	LG-7503/37083
NORTH	-	S-7700-30S	M-7700-30M	LG 7700-30L

Initial Fit OK	YES ✓	NO
Negative Pressure Test	YES ✓	NO
Positive Pressure Test	YES ✓	NO
Irritant Smoke Test	YES ✓	NO
Sweetener Test	YES ✓	NO
Isoamyl Acetate Test	YES	NO

TEST: P.A.P.R. Respirator Manufacturer Type/Size/Model/:

3M	-	S-51000	~~M-6800PF~~	LG-53000
MSA	-	S-487854	M-487852	LG-487854

Initial Fit OK	YES ✓	NO
Negative Pressure Test	YES ✓	NO
Positive Pressure Test	YES ✓	NO
Irritant Smoke Test	YES ✓	NO
Sweetener Test	YES	NO
Isoamyl Acetate Test	YES	NO

SUPERVISOR: [signature]

EMPLOYEE SIGNATURE: Paul Kluehn DATE: 1-6-03

RE-TEST DATE: 1-6-04 DATE: 1-6-03

An affiliate of Specialty Systems Incorporated
The Asbestos Management Group
183 W. 162nd Street, South Holland, IL 60473
708 333 4411

APPENDIX D
ANALYTICAL RESULTS FROM THE ABANDONED OIL DRIP TANK
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

DS

SIMALABS
INTERNATIONAL

RECEIVED
JUL 03 2003
Burns & McDonnell
Oak Brook, IL

June 30, 2003

Joan Gonzalez
Burns & McDonnell
2601 West 22nd Street
Oak Brook, IL 60523-1229

RE: Peoples Gas - Hawthorne Regulator Station

Work Order No.: ME0306573

Dear Joan Gonzalez:

SIMALABS International received 1 sample on 6/25/2003 for the analyses presented in the following report.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted. This report includes the numbered pages as well as the Cooler Inspection Report and original Chain of Custody form(s).

SIMALABS International of Merrillville, Indiana is an accredited laboratory under the requirements of the National Environmental Laboratory Accreditation Program (IL EPA lab #100435). All data included has been reviewed for and meets all project specific and Quality Control requirements of this accreditation, unless otherwise noted. This report shall not be reproduced except in full, without the written approval of SIMALABS International.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,
SIMALABS International

Ronald J. Misiunas
Client Services Manager

Enclosures

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX 219.769.1664

SIMALABS

INTERNATIONAL

SIMALABS International

Date: *30-Jun-03*

CLIENT: Burns & McDonnell
Project: Peoples Gas - Hawthorne Regulator Station
Lab Order: ME0306573

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
ME0306573-01A	HAS-HT01-001	HAS-HT01-001	6/20/2003	6/25/2003

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SIMALABS
INTERNATIONAL

CASE NARRATIVE

Date: *Monday, June 30, 2003*

Client: Burns & McDonnell
Project: Peoples Gas - Hawthorne Regulator Station
Lab Order: ME0306573

In the SVOA TCLP analysis of sample ME0306573-01A, the sample, an oil sample, was diluted and directly injected onto the GC/MS system.

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SIMALABS
INTERNATIONAL

ANALYTICAL RESULTS

Date: *Monday, June 30, 2003*

Client:	Burns & McDonnell	***Client Project:***	Peoples Gas - Hawthorne Reg
		Work Order:	ME0306573
Client Sample ID:	HAS-HT01-001	***SIMALABS ID:***	ME0306573-01A
Sample Description:	HAS-HT01-001		
Sample Matrix:	Oil		
Collection Date:	06/20/03		
Date Received:	06/25/03		

Analyses	Samp Type	Result	Reporting Limit	Qual	Units	DF	Date / Time Analyzed
HERBICIDES, TCLP LEACHED	Method: **SW1311/8150**		Prep Date/Time: **6/28/2003**				Analyst: **AS**
2,4,5-TP (Silvex)	A	***ND***	5.0		mg/L	1	6/30/2003 10:50:00 AM
2,4-D	A	***ND***	5.0		mg/L	1	6/30/2003 10:50:00 AM
Surr: DCAA	S	85.0	10-150		%REC	1	6/30/2003 10:50:00 AM
PESTICIDES, TCLP LEACHED	Method: **SW1311/8080A**		Prep Date/Time: **6/28/2003**				Analyst: **AS**
Chlordane	A	***ND***	10		mg/L	10	6/29/2003 11:48:00 AM
Endrin	A	***ND***	2.0		mg/L	10	6/29/2003 11:48:00 AM
gamma-BHC	A	***ND***	2.0		mg/L	10	6/29/2003 11:48:00 AM
Heptachlor	A	***ND***	1.6		mg/L	10	6/29/2003 11:48:00 AM
Heptachlor epoxide	A	***ND***	1.6		mg/L	10	6/29/2003 11:48:00 AM
Methoxychlor	A	***ND***	100		mg/L	10	6/29/2003 11:48:00 AM
Toxaphene	A	***ND***	100		mg/L	10	6/29/2003 11:48:00 AM
Surr: Tetrachloro-m-xylene	S	200	7.58-153	SD	%REC	10	6/29/2003 11:48:00 AM
Surr: Decachlorobiphenyl	S	100	15.4-169		%REC	10	6/29/2003 11:48:00 AM
MERCURY, TCLP LEACHED	Method: **SW7470A**		Prep Date/Time: **6/27/2003 8:30:00 AM**				Analyst: **DN**
Mercury	A	***0.033***	0.025		mg/L	10	6/27/2003 11:25:56 AM
TCLP METALS BY ICP	Method: **SW1311/6010B**		Prep Date/Time: **6/27/2003 8:20:00 AM**				Analyst: **DN**
Arsenic	A	***ND***	1.0		mg/L	1	6/27/2003 12:05:00 PM
Barium	A	***68***	2.5		mg/L	1	6/27/2003 12:05:00 PM
Cadmium	A	***0.73***	0.050		mg/L	1	6/27/2003 12:05:00 PM
Chromium	A	***ND***	0.25		mg/L	1	6/27/2003 12:05:00 PM
Lead	A	***78***	0.25		mg/L	1	6/27/2003 12:05:00 PM
Selenium	A	***ND***	1.0		mg/L	1	6/27/2003 12:05:00 PM
Silver	A	***ND***	0.050		mg/L	1	6/27/2003 12:05:00 PM
SEMIVOLATILES, TCLP LEACHED	Method: **SW1311/8270C**		Prep Date/Time:				Analyst: **BM**
1,4-Dichlorobenzene	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM

Samp Type: A - Analyte, S - Surrogate, I - Internal Standard
T - Tentatively Identified Compound (TIC,concentration estimated)

DF - Dilution Factor

Qual: ND - Not Detected at the Reporting Limit
B - Detected in the associated Method Blank
* - Exceeds Maximum Contaminant Level

S - Spike recovery outside recovery limits
SD - Value diluted out
R - RPD outside accepted recovery limits
E - Value above quantitation range

I -Matrix Interference

H - Analyte was prepared and/or analyzed outside of the analytical method holding time

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SIMALABS
INTERNATIONAL

ANALYTICAL RESULTS

Date: *Monday, June 30, 2003*

Client:	Burns & McDonnell	***Client Project:***	Peoples Gas - Hawthorne Reg
		Work Order:	ME0306573
Client Sample ID:	HAS-HT01-001	***SIMALABS ID:***	ME0306573-01A
Sample Description:	HAS-HT01-001		
Sample Matrix:	Oil		
Collection Date:	06/20/03		
Date Received:	06/25/03		

SEMIVOLATILES, TCLP LEACHED Method: **SW1311/8270C** Prep Date/Time: Analyst: **BM**

Analyses	Samp Type	Result	Reporting Limit	Qual	Units	DF	Date / Time Analyzed
2,4,5-Trichlorophenol	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
2,4,6-Trichlorophenol	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
2,4-Dinitrotoluene	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
2-Methylphenol	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
3/4-Methylphenol	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
Hexachlorobenzene	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
Hexachlorobutadiene	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
Hexachloroethane	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
Nitrobenzene	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
Pentachlorophenol	A	***ND***	5000		mg/L	100	6/27/2003 1:30:00 AM
Pyridine	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
Total Cresol	A	***ND***	1000		mg/L	100	6/27/2003 1:30:00 AM
Surr: 2,4,6-Tribromophenol	S	111	10-120		%REC	100	6/27/2003 1:30:00 AM
Surr: 2-Fluorobiphenyl	S	106	5.58-109		%REC	100	6/27/2003 1:30:00 AM
Surr: 2-Fluorophenol	S	124	10-84.7	S	%REC	100	6/27/2003 1:30:00 AM
Surr: Nitrobenzene-d5	S	119	10-121		%REC	100	6/27/2003 1:30:00 AM
Surr: Phenol-d5	S	106	10-100	S	%REC	100	6/27/2003 1:30:00 AM
Surr: Terphenyl-d14	S	185	10-130	S	%REC	100	6/27/2003 1:30:00 AM

VOLATILES, TCLP LEACHED Method: **SW1311/8260B** Prep Date/Time: **6/25/2003 10:00:00 AM** Analyst: **JB**

Benzene	A	***6.5***	2.5		mg/L	500	6/25/2003 12:02:00 PM
2-Butanone	A	***ND***	5.0		mg/L	500	6/25/2003 12:02:00 PM
Carbon tetrachloride	A	***ND***	2.5		mg/L	500	6/25/2003 12:02:00 PM
Chlorobenzene	A	***ND***	2.5		mg/L	500	6/25/2003 12:02:00 PM
Chloroform	A	***ND***	2.5		mg/L	500	6/25/2003 12:02:00 PM
1,1-Dichloroethene	A	***ND***	2.5		mg/L	500	6/25/2003 12:02:00 PM
1,2-Dichloroethane	A	***ND***	2.5		mg/L	500	6/25/2003 12:02:00 PM
1,4-Dichlorobenzene	A	***ND***	2.5		mg/L	500	6/25/2003 12:02:00 PM
Tetrachloroethene	A	***170***	25		mg/L	5,000	6/25/2003 3:42:00 PM

Samp Type: A - Analyte, S - Surrogate, I - Internal Standard
T - Tentatively Identified Compound (TIC,concentration estimated)

DF - Dilution Factor

Qual: ND - Not Detected at the Reporting Limit
B - Detected in the associated Method Blank
* - Exceeds Maximum Contaminant Level
S - Spike recovery outside recovery limits
SD - Value diluted out
R - RPD outside accepted recovery limits
E - Value above quantitation range
I -Matrix Interference

H - Analyte was prepared and/or analyzed outside of the analytical method holding time

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ANALYTICAL RESULTS

Date: *Monday, June 30, 2003*

Client:	Burns & McDonnell	***Client Project:***	Peoples Gas - Hawthorne Reg
		Work Order:	ME0306573
Client Sample ID:	HAS-HT01-001	***SIMALABS ID:***	ME0306573-01A
Sample Description:	HAS-HT01-001		
Sample Matrix:	Oil		
Collection Date:	06/20/03		
Date Received:	06/25/03		

Analyses	Samp Type	Result	Reporting Limit	Qual	Units	DF	Date / Time Analyzed
VOLATILES, TCLP LEACHED	Method: **SW1311/8260B**		Prep Date/Time: **6/25/2003 10:00:00 AM**				Analyst: **JB**
Trichloroethene	A	*ND*	2.5		mg/L	500	6/25/2003 12:02:00 PM
Vinyl chloride	A	*ND*	2.5		mg/L	500	6/25/2003 12:02:00 PM
Surr: 4-Bromofluorobenzene	S	102	82.6-112		%REC	500	6/25/2003 12:02:00 PM
Surr: Dibromofluoromethane	S	89.7	81.3-117		%REC	500	6/25/2003 12:02:00 PM
Surr: Toluene-d8	S	108	86.9-113		%REC	500	6/25/2003 12:02:00 PM
Surr: 1,2-Dichloroethane-d4	S	105	77.5-120		%REC	500	6/25/2003 12:02:00 PM
PAINT FILTER	Method: **SW9095**		Prep Date/Time:				Analyst: **RC**
Paint Filter	A	*FAIL*			Pass/Fail	1	6/25/2003 9:45:00 PM
CORROSIVITY BY PH	Method: **SW9045B**		Prep Date/Time:				Analyst: **LW**
pH	A	*6.2*	0		pH Units	1	6/25/2003 4:20:00 PM

Samp Type: A - Analyte, S - Surrogate, I - Internal Standard
T - Tentatively Identified Compound (TIC,concentration estimated)

DF - Dilution Factor

Qual: ND - Not Detected at the Reporting Limit
B - Detected in the associated Method Blank
* - Exceeds Maximum Contaminant Level

S - Spike recovery outside recovery limits
SD - Value diluted out
R - RPD outside accepted recovery limits
E - Value above quantitation range

I -Matrix Interference

H - Analyte was prepared and/or analyzed outside of the analytical method holding time

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RUSH! **Ron Misiunas** 0306573 - 01A

From: Diane Saftic [dsaftic@burnsmcd.com]
Sent: Tuesday, June 24, 2003 5:51 PM
To: >
Subject: Re: ME0306508 - Peoples Gas - Hawthorne Regulator Station

Ron -

Hello. As we discussed earlier today (6/24), please analyze sample HAS-HT01-001 for the following additional parameters: TCLP Organics, TCLP metals, paint filter, TCLP herbicides/pesticides, and pH. Please provide the analytical results as soon as possible. If you have any questions, please contact me. Thank you for your cooperation.

Sincerely,

ME0306508-01A

Diane Saftic, P.E.
Burns & McDonnell
2601 West 22nd Street
Oak Brook, Illinois 60523
(630) 990-0302 ext. 277

TCLP VOC
" SVOC
" Pest
" Herb
" Metals
PF
pH

48 Hr TAT

SIMALABS International

250 W 84th Drive
Merrillville, IN 46410
(219) 769-8378

COOLER INSPECTION

Friday, June 20, 2003

Client Name BURNS & MCDONNEL
Work Order Number ME0306508
Checklist completed b [signature] 6/20/03
Signature Date

Date / Time Received: 6/20/2003
Received by LT
Reviewed by [initials] 6/23/03
Initials Date

Carrier name SIMALABS

After-Hour Arrival?	Yes ☐	No ☑	
Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody included sufficient client identification?	Yes ☑	No ☐	
Chain of custody included sufficient sample collector information?	Yes ☑	No ☐	
Chain of custody included a sample description?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Chain of custody identified the appropriate matrix?	Yes ☑	No ☐	
Chain of custody included date of collection?	Yes ☑	No ☐	
Chain of custody included time of collection?	Yes ☑	No ☐	
Chain of custody identified the appropriate number of containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Chain of custody identified the appropriate preservatives?	Yes ☐	No ☑	
Samples properly preserved?	Yes ☑	No ☐	
If No, adjusted by?		Date/Time	
Chain of custody included the requested analyses?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samples received on ice?	Yes ☑	No ☐	
Container/Temp Blank temperature	Temp: 5 °C		
VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

General Comments: Split off sample into separate container for VOC.

Sample ID	Client Sample ID	Comments
ME0306508-01A	HAS-HT01-001	RUSH

Client representative contacted: Date contacted:

Contacted by: Regarding

Notes:

SIMALABS International

Date: *30-Jun-03*

CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 20778

Sample ID: **PB0623 RX** SampType: **MBLK** TestCode: **RCN_S** Units: **mg/Kg** Prep Date: Run ID: **LACHAT-1_030623A**
Client ID: **ZZZZZ** Batch ID: **20778** TestNo: **SW7.3.3.2_r3** Analysis Date: **6/23/03 12:43:13 PM** SeqNo: **705332**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	ND	20									

Sample ID: **LCS0623 RX** SampType: **LCS** TestCode: **RCN_S** Units: **mg/Kg** Prep Date: Run ID: **LACHAT-1_030623A**
Client ID: **ZZZZZ** Batch ID: **20778** TestNo: **SW7.3.3.2_r3** Analysis Date: **6/23/03 12:22:00 PM** SeqNo: **705365**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	ND	20	50	0	29.2	10	55.8	0	0		

Sample ID: **ME0306508-01AMS** SampType: **MS** TestCode: **RCN_S** Units: **mg/Kg** Prep Date: **6/23/03 8:30:00 AM** Run ID: **LACHAT-1_030623A**
Client ID: **HAS HT01 001** Batch ID: **20778** TestNo: **SW7.3.3.2_r3** Analysis Date: **6/23/03 1:41:35 PM** SeqNo: **705360**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	ND	100	249.5	0	12.5	12	100	0	0		

Sample ID: **ME0306508-01AMS** SampType: **MSD** TestCode: **RCN_S** Units: **mg/Kg** Prep Date: **6/23/03 8:30:00 AM** Run ID: **LACHAT-1_030623A**
Client ID: **HAS HT01 001** Batch ID: **20778** TestNo: **SW7.3.3.2_r3** Analysis Date: **6/23/03 1:01:16 PM** SeqNo: **705335**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	ND	100	249.8	0	12.6	12	100	0	0	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
H - Analyte was prepared and/or analyzed outside of the analytical method holding time

CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 20779

Sample ID: **PB0623** SampType: **MBLK** TestCode: **RS_S** Units: mg/Kg Prep Date: **6/23/03 8:30:00 AM** Run ID: **SPEC20_030624A**
Client ID: **ZZZZZ** Batch ID: **20779** TestNo: **SW7.3.4.2_r3** Analysis Date: **6/24/03 8:50:00 AM** SeqNo: **705679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	ND	10									

Sample ID: **LCS0623** SampType: **LCS** TestCode: **RS_S** Units: mg/Kg Prep Date: **6/23/03 8:30:00 AM** Run ID: **SPEC20_030624A**
Client ID: **ZZZZZ** Batch ID: **20779** TestNo: **SW7.3.4.2_r3** Analysis Date: **6/24/03 8:50:00 AM** SeqNo: **705680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	ND	10	10	0	84.8	15	130	0	0		

Sample ID: **ME0306508-01AMS** SampType: **MS** TestCode: **RS_S** Units: mg/Kg Prep Date: **6/23/03 8:30:00 AM** Run ID: **SPEC20_030624A**
Client ID: **HAS HT01 001** Batch ID: **20779** TestNo: **SW7.3.4.2_r3** Analysis Date: **6/24/03 8:50:00 AM** SeqNo: **705682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	ND	50	49.9	0	0	12	130	0	0		S

Sample ID: **ME0306508-01AMS** SampType: **MSD** TestCode: **RS_S** Units: mg/Kg Prep Date: **6/23/03 8:30:00 AM** Run ID: **SPEC20_030624A**
Client ID: **HAS HT01 001** Batch ID: **20779** TestNo: **SW7.3.4.2_r3** Analysis Date: **6/24/03 8:50:00 AM** SeqNo: **705683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	ND	50	49.95	0	0	12	130	0	0	30	S

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 20780

Sample ID: **PB0623** SampType: **MBLK** TestCode: **PHENOLICS_** Units: **mg/kg** Prep Date: **6/23/03 9:00:00 AM** Run ID: **LACHAT-1_030623B**
Client ID: **ZZZZZ** Batch ID: **20780** TestNo: **SW9066** Analysis Date: **6/23/03 1:03:04 PM** SeqNo: **705370**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.010									

Sample ID: **LCS0623** SampType: **LCS** TestCode: **PHENOLICS_** Units: **mg/kg** Prep Date: **6/23/03 9:00:00 AM** Run ID: **LACHAT-1_030623B**
Client ID: **ZZZZZ** Batch ID: **20780** TestNo: **SW9066** Analysis Date: **6/23/03 1:03:55 PM** SeqNo: **705371**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.4272	0.010	0.4	0	107	78.3	121	0	0		

Sample ID: **ME0306305-01AMS** SampType: **MS** TestCode: **PHENOLICS_** Units: **mg/kg** Prep Date: **6/23/03 9:00:00 AM** Run ID: **LACHAT-1_030623B**
Client ID: **ZZZZZ** Batch ID: **20780** TestNo: **SW9066** Analysis Date: **6/23/03 1:05:35 PM** SeqNo: **705373**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	42.5	0.99	39.53	0	108	53.9	123	0	0		

Sample ID: **ME0306305-01AMS** SampType: **MSD** TestCode: **PHENOLICS_** Units: **mg/kg** Prep Date: **6/23/03 9:00:00 AM** Run ID: **LACHAT-1_030623B**
Client ID: **ZZZZZ** Batch ID: **20780** TestNo: **SW9066** Analysis Date: **6/23/03 1:06:25 PM** SeqNo: **705374**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	42.89	0.98	39.37	0	109	53.9	123	42.5	0.923	22.5	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R46043

Sample ID: **LCS** SampType: **LCS** TestCode: **IGN_W** Units: **°F** Prep Date: Run ID: **FLASH-POINT_030620A**
Client ID: **ZZZZZ** Batch ID: **R46043** TestNo: **SW1010** Analysis Date: **6/20/03 5:00:00 PM** SeqNo: **704601**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ignitability	81	30	81	0	100	96	102	0	0		

Qualifiers:
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H - Analyte was prepared and/or analyzed outside of the analytical method holding time
S - Spike Recovery outside accepted recovery limits
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CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 20787

Sample ID: **bk-o-062303** SampType: **mblk** TestCode: **pcb_o** Units: **mg/kg** Prep Date: **6/23/03** Run ID: **HPPCB-2_030623A**
Client ID: **ZZZZZ** Batch ID: **20787** TestNo: **SW8082** Analysis Date: **6/23/03 3:06:00 PM** SeqNo: **705474**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	1.0									
Aroclor 1221	ND	1.0									
Aroclor 1232	ND	1.0									
Aroclor 1242	ND	1.0									
Aroclor 1248	ND	1.0									
Aroclor 1254	ND	1.0									
Aroclor 1260	ND	1.0									
Aroclor 1262	ND	1.0									
Aroclor 1268	ND	1.0									
Surr: Tetrachloro-m-xylene	0.17	0	0.2	0	85	5	163	0	0		
Surr: Decachlorobiphenyl	0.1	0	0.2	0	50	19.8	152	0	0		

Sample ID: **lcs-o-062303** SampType: **lcs** TestCode: **pcb_o** Units: **mg/kg** Prep Date: **6/23/03** Run ID: **HPPCB-2_030623A**
Client ID: **ZZZZZ** Batch ID: **20787** TestNo: **SW8082** Analysis Date: **6/23/03 3:37:00 PM** SeqNo: **705475**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	3.96	1.0	5	0	79.2	54	149	0	0		
Aroclor 1260	3.55	1.0	5	0	71	59.8	135	0	0		
Surr: Tetrachloro-m-xylene	0.18	0	0.2	0	90	5	163	0	0		
Surr: Decachlorobiphenyl	0.11	0	0.2	0	55	19.8	152	0	0		

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R46104

Sample ID: **bk-s-062303** SampType: **mblk** TestCode: **8015+_s** Units: **mg/Kg** Prep Date: Run ID: **FID-1_030623A**
Client ID: **ZZZZZ** Batch ID: **R46104** TestNo: **SW8015** Analysis Date: **6/23/03 1:08:00 PM** SeqNo: **705688**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Ethoxylethanol	ND	10									
Butanol	ND	10									
Methanol	ND	20									

Qualifiers:
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B - Analyte detected in the associated Method Blank

SIMALABS International

Date: *30-Jun-03*

CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R46087

Sample ID: bk-9-062303 | SampType: mblk | TestCode: 8270+_o | Units: mg/Kg | Prep Date: | Run ID: SVOA-3_030623A
Client ID: ZZZZZ | Batch ID: R46087 | TestNo: SW8270C | Analysis Date: 6/23/03 4:38:00 PM | SeqNo: 705562

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylphenol	ND	10									
3/4-Methylphenol	ND	10									
Nitrobenzene	ND	10									
Pyridine	ND	10									
Surr: Nitrobenzene-d5	158.5	0	100	0	159	32	181	0	0		
Surr: 2-Fluorobiphenyl	129.8	0	100	0	130	22.5	177	0	0		
Surr: Terphenyl-d14	141	0	100	0	141	16.2	198	0	0		
Surr: Phenol-d5	174.5	0	150	0	116	22.7	183	0	0		
Surr: 2-Fluorophenol	140.2	0	150	0	93.4	32.9	177	0	0		
Surr: 2,4,6-Tribromophenol	178.4	0	150	0	119	13.3	196	0	0		

Sample ID: lcs-9a-062303 | SampType: lcs | TestCode: 8270+_o | Units: mg/Kg | Prep Date: | Run ID: SVOA-3_030623A
Client ID: ZZZZZ | Batch ID: R46087 | TestNo: SW8270C | Analysis Date: 6/23/03 5:24:00 PM | SeqNo: 705563

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	80.79	10	100	0	80.8	50.3	134	0	0		
1,4-Dichlorobenzene	89.55	10	100	0	89.6	49.1	135	0	0		
2,4-Dinitrotoluene	65.48	10	100	0	65.5	44.7	123	0	0		
2-Chlorophenol	71.59	10	100	0	71.6	51.3	130	0	0		
4-Chloro-3-methylphenol	88.4	20	100	0	88.4	43.4	138	0	0		
4-Nitrophenol	106.9	50	100	0	107	38.6	116	0	0		
Acenaphthene	83.48	10	100	0	83.5	47.8	135	0	0		
N-Nitrosodi-n-propylamine	51.57	10	100	0	51.6	48.3	141	0	0		
Pentachlorophenol	54.34	50	100	0	54.3	41.7	115	0	0		
Phenol	83.83	10	100	0	83.8	52.5	114	0	0		
Pyrene	47.32	10	100	0	47.3	43	145	0	0		
Surr: Nitrobenzene-d5	175.9	0	100	0	176	32	181	0	0		
Surr: 2-Fluorobiphenyl	134.2	0	100	0	134	22.5	177	0	0		
Surr: Terphenyl-d14	138.2	0	100	0	138	16.2	198	0	0		

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R46087

Sample ID: **Ics-9a-062303** SampType: **Ics** TestCode: **8270+_o** Units: **mg/Kg** Prep Date: Run ID: **SVOA-3_030623A**
Client ID: **ZZZZZ** Batch ID: **R46087** TestNo: **SW8270C** Analysis Date: **6/23/03 5:24:00 PM** SeqNo: **705563**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Phenol-d5	159.5	0	150	0	106	22.7	183	0	0		
Surr: 2-Fluorophenol	129.5	0	150	0	86.3	32.9	177	0	0		
Surr: 2,4,6-Tribromophenol	163.1	0	150	0	109	13.3	196	0	0		

Sample ID: **Ics-9b-062303** SampType: **Ics** TestCode: **8270+_o** Units: **mg/Kg** Prep Date: Run ID: **SVOA-3_030623A**
Client ID: **ZZZZZ** Batch ID: **R46087** TestNo: **SW8270C** Analysis Date: **6/23/03 6:10:00 PM** SeqNo: **705564**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	81.26	10	100	0	81.3	50.3	134	0	0		
1,4-Dichlorobenzene	93.89	10	100	0	93.9	49.1	135	0	0		
2,4-Dinitrotoluene	71.72	10	100	0	71.7	44.7	123	0	0		
2-Chlorophenol	77.71	10	100	0	77.7	51.3	130	0	0		
4-Chloro-3-methylphenol	91.78	20	100	0	91.8	43.4	138	0	0		
4-Nitrophenol	117.9	50	100	0	118	38.6	116	0	0		S
Acenaphthene	91.08	10	100	0	91.1	47.8	135	0	0		
N-Nitrosodi-n-propylamine	51	10	100	0	51	48.3	141	0	0		
Pentachlorophenol	59.14	50	100	0	59.1	41.7	115	0	0		
Phenol	91.46	10	100	0	91.5	52.5	114	0	0		
Pyrene	46.05	10	100	0	46	43	145	0	0		
Surr: Nitrobenzene-d5	164.8	0	100	0	165	32	181	0	0		
Surr: 2-Fluorobiphenyl	133.8	0	100	0	134	22.5	177	0	0		
Surr: Terphenyl-d14	127.9	0	100	0	128	16.2	198	0	0		
Surr: Phenol-d5	156.6	0	150	0	104	22.7	183	0	0		
Surr: 2-Fluorophenol	127.7	0	150	0	85.1	32.9	177	0	0		
Surr: 2,4,6-Tribromophenol	154	0	150	0	103	13.3	196	0	0		

Qualifiers:
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SIMALABS International

Date: *30-Jun-03*

CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R46106

Sample ID: **ME0306318-01AMS** SampType: **MS** TestCode: **8260+_O** Units: **µg/Kg** Prep Date: Run ID: **VOA-3_030623B**
Client ID: **ZZZZZ** Batch ID: **R46106** TestNo: **SW8260B** Analysis Date: **6/23/03 2:49:00 PM** SeqNo: **708992**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	507	50	500	0	101	54.3	134	0	0		
Chlorobenzene	510.9	50	500	0	102	63.4	130	0	0		
Toluene	509	50	500	62.2	89.4	45.3	147	0	0		
Trichloroethene	442.6	50	500	0	88.5	41.8	145	0	0		
Surr: 1,2-Dichloroethane-d4	475.3	0	500	0	95.1	67.9	142	0	0		
Surr: 4-Bromofluorobenzene	504.8	0	500	0	101	58.6	119	0	0		
Surr: Dibromofluoromethane	473.8	0	500	0	94.8	70.8	132	0	0		
Surr: Toluene-d8	529.2	0	500	0	106	72.7	141	0	0		

Sample ID: **ME0306318-01AMS** SampType: **MSD** TestCode: **8260+_O** Units: **µg/Kg** Prep Date: Run ID: **VOA-3_030623B**
Client ID: **ZZZZZ** Batch ID: **R46106** TestNo: **SW8260B** Analysis Date: **6/23/03 6:06:00 PM** SeqNo: **708993**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	517.2	50	500	0	103	54.3	134	507	1.99	32	
Chlorobenzene	462.4	50	500	0	92.5	63.4	130	510.9	9.97	19	
Toluene	540.8	50	500	62.2	95.7	45.3	147	509	6.06	44.7	
Trichloroethene	438.7	50	500	0	87.7	41.8	145	442.6	0.885	35.3	
Surr: 1,2-Dichloroethane-d4	490.5	0	500	0	98.1	67.9	142	0	0	0	
Surr: 4-Bromofluorobenzene	477.3	0	500	0	95.5	58.6	119	0	0	0	
Surr: Dibromofluoromethane	454.2	0	500	0	90.8	70.8	132	0	0	0	
Surr: Toluene-d8	520.8	0	500	0	104	72.7	141	0	0	0	

Sample ID: **MBLK-O-062303** SampType: **MBLK** TestCode: **8260_O** Units: **µg/Kg** Prep Date: Run ID: **VOA-3_030623B**
Client ID: **ZZZZZ** Batch ID: **R46106** TestNo: **SW8260B** Analysis Date: **6/23/03 8:35:00 AM** SeqNo: **705697**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane	0	10									
Acetone	0	50									
Benzene	0	5.0									

Qualifiers:
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B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R46106

Sample ID: **MBLK-O-062303** SampType: **MBLK** TestCode: **8260_O** Units: **µg/Kg** Prep Date: Run ID: **VOA-3_030623B**
Client ID: **ZZZZZ** Batch ID: **R46106** TestNo: **SW8260B** Analysis Date: **6/23/03 8:35:00 AM** SeqNo: **705697**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Butanone	0	10									
Carbon Disulfide	0	10									
Carbon tetrachloride	0	5.0									
Chlorobenzene	0	5.0									
Ethylbenzene	0	5.0									
4-Methyl-2-Pentanone	0	5.0									
Methylene chloride	0	10									
Tetrachloroethene	0	5.0									
Toluene	0	5.0									
1,1,1-Trichloroethane	0	5.0									
1,1,2-Trichloroethane	0	5.0									
Trichloroethene	0	5.0									
m,p-Xylene	0	5.0									
o-Xylene	0	5.0									
Surr: 4-Bromofluorobenzene	42.42	0	50	0	84.8	58.6	119	0	0		
Surr: Dibromofluoromethane	50.24	0	50	0	100	70.8	132	0	0		
Surr: 1,2-Dichloroethane-d4	53.02	0	50	0	106	67.9	142	0	0		
Surr: Toluene-d8	48.31	0	50	0	96.6	72.7	141	0	0		

Sample ID: **LCS-O-062303** SampType: **LCS** TestCode: **8260_O** Units: **µg/Kg** Prep Date: Run ID: **VOA-3_030623B**
Client ID: **ZZZZZ** Batch ID: **R46106** TestNo: **SW8260B** Analysis Date: **6/23/03 9:15:00 AM** SeqNo: **705699**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane	20.75	10	20	0	104	70	130	0	0		
Acetone	24.24	50	20	0	121	0	0	0	0		
Benzene	18.96	5.0	20	0	94.8	70	130	0	0		
2-Butanone	26.41	10	20	0	132	0	0	0	0		
Carbon Disulfide	17.89	10	20	0	89.4	0	0	0	0		
Carbon tetrachloride	17.85	5.0	20	0	89.2	70	130	0	0		
Chlorobenzene	18.67	5.0	20	0	93.4	70	130	0	0		
Ethylbenzene	18.66	5.0	20	0	93.3	70	130	0	0		

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CLIENT: Burns & McDonnell
Work Order: ME0306508
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R46106

Sample ID: **LCS-O-062303** SampType: **LCS** TestCode: **8260_O** Units: **µg/Kg** Prep Date: Run ID: **VOA-3_030623B**
Client ID: **ZZZZZ** Batch ID: **R46106** TestNo: **SW8260B** Analysis Date: **6/23/03 9:15:00 AM** SeqNo: **705699**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Methyl-2-Pentanone	27.89	5.0	20	0	139	0	0	0	0		
Methylene chloride	16.58	10	20	0	82.9	0	0	0	0		
Tetrachloroethene	18.46	5.0	20	0	92.3	0	0	0	0		
Toluene	20.38	5.0	20	0	102	70	130	0	0		
1,1,1-Trichloroethane	19.33	5.0	20	0	96.7	70	130	0	0		
1,1,2-Trichloroethane	18.98	5.0	20	0	94.9	70	130	0	0		
Trichloroethene	18.37	5.0	20	0	91.8	70	130	0	0		
m,p-Xylene	37.08	5.0	40	0	92.7	0	0	0	0		
o-Xylene	22.61	5.0	20	0	113	70	130	0	0		
Surr: 4-Bromofluorobenzene	44.54	0	50	0	89.1	58.6	119	0	0		
Surr: Dibromofluoromethane	45.25	0	50	0	90.5	70.8	132	0	0		
Surr: 1,2-Dichloroethane-d4	53.85	0	50	0	108	67.9	142	0	0		
Surr: Toluene-d8	56.13	0	50	0	112	72.7	141	0	0		

Qualifiers:
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SIMALABS International
250 W. 84th Drive
Merrillville, IN 46410
(219) 769-8378

COOLER INSPECTION

Friday, June 20, 2003

Client Name BURNS & MCDONNEL
Work Order Number ME0306508
Checklist completed b [signature] 6/20/03
Signature Date

Date / Time Received: 6/20/2003
Received by LT
Reviewed by [initials] 6/23/03
Initials Date

Carrier name SIMALABS

After-Hour Arrival?	Yes ☐	No ☑		
Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present	☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present	☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present	☑
Chain of custody present?	Yes ☑	No ☐		
Chain of custody included sufficient client identification?	Yes ☑	No ☐		
Chain of custody included sufficient sample collector information?	Yes ☑	No ☐		
Chain of custody included a sample description?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Chain of custody identified the appropriate matrix?	Yes ☑	No ☐		
Chain of custody included date of collection?	Yes ☑	No ☐		
Chain of custody included time of collection?	Yes ☑	No ☐		
Chain of custody identified the appropriate number of containers?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Chain of custody identified the appropriate preservatives?	Yes ☐	No ☑		
Samples properly preserved?	Yes ☑	No ☐		
If No, adjusted by?		Date/Time		
Chain of custody included the requested analyses?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Samples received on ice?	Yes ☑	No ☐		
Container/Temp Blank temperature	Temp: 5 °C			
VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

General Comments: Split off sample into separate container for VOC.

Sample ID	Client Sample ID	Comments
ME0306508-01A	HAS-HT01-001	RUSH

Client representative contacted: _____ Date contacted: _____

Contacted by: _____ Regarding _____

Notes: _____

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record **RUSH!**

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: Joan Gonzalez

Laboratory: Sima Labs
Address: 250 West 84th Drive
City/State/Zip: Merrillville, IN 46410
Telephone: (219) 769-8378

Document Control No: HAS-041-2003
Lab. Reference No. or Episode No.:

Project Number: 29168-4.07
Site Name: Peoples Gas - Hawthorne Ave Station

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type / Matrix: Liquid	Sample Type / Matrix: Solid	Sample Type / Matrix: Gas	Number of Containers	TPH	PCBs	Total Phenol	Flash Point	TCLP Solvent Scan	Reactive Cyanide	Reactive Sulfide	Remarks
HAS-	HT01 -	001					6/20/03	1425	X			3	X	X	X	X	X	X	X	Waste Characterization 6508 OIA

ALH 6/20/03

Sampler (signature): Amy Hanrahan

Sampler (signature):

Custody Seal Number: 062003-005, 062003-006

Special Instructions: TAT - Results by 6/24/03 - AM

Relinquished By (signature): 1. Amy Hanrahan — Date/Time: 6/20/03

Received By (signature): [signature] — Date/Time: 6/20/03 13

Relinquished By (signature): 2. [signature] — Date/Time: 6/20/03

Received By (signature): [signature] — Date/Time: 6/20/03

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt: 5°C

Laboratory Comments:

LABORATORY ACCREDITATION

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL LABORATORY ACCREDITATION

is hereby granted to

SIMALABS INTERNATIONAL - MERRILLVILLE
250 WEST 84TH DRIVE
MERRILLVILLE, IN 46410

ACCREDITATION NUMBER #100435

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part 186 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part 186. Please contact the Illinois EPA Environmental Laboratory Accreditation Program (IL ELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Illinois is not an endorsement or a guarantee of validity of the data generated by the laboratory.

Janet Cruse

Janet Cruse
Accreditation Office
Environmental Laboratory Accreditation Program

Certificate No.: 000762
Expiration Date: 01/30/2004
Issued On: 01/31/2003

State of Illinois
Environmental Protection Agency

Certificate No.: 000762

Awards the Certificate of Approval

SIMALABS International - Merrillville
250 West 84th Drive
Merrillville, IN 46410

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

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Hazardous and Solid Waste, Inorganic

1010

Ignitability

1311

TCLP (Organic and Inorganic)

1312

Synthetic Precipitation Leaching Procedure

6010B

Aluminum	Antimony	Arsenic
Barium	Beryllium	Cadmium
Calcium	Chromium	Cobalt
Copper	Iron	Lead
Magnesium	Manganese	Molybdenum
Nickel	Potassium	Selenium
Silver	Sodium	Strontium
Thallium	Vanadium	Zinc

7041

Antimony

7060A

Arsenic

7131A

Cadmium

7196A

Chromium VI

7421

Lead

7470A

Mercury

7471A

Mercury

7741A

Selenium

7841

Thallium

9012A

Cyanide

State of Illinois
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Merrillville, IN 46410

Hazardous and Solid Waste, Inorganic

9030B
Sulfides

9034
Sulfides

9041A
Hydrogen Ion (pH)

9045C
Hydrogen Ion (pH)

9066
Phenolics

9095A
Paint Filter

Chapter 7/9014
Reactive Cyanide

Chapter 7/9034
Reactive Sulfide

Hazardous and Solid Waste, Organic

8015B
Diesel range organics (DRO)
Gasoline range organics (GRO)

8081A

1,2-Dibromo-3-chloropropane (DBCP)	4,4'-DDD	4,4'-DDE
4,4'-DDT	alpha-BHC	alpha-Chlordane
beta-BHC	Chlordane - not otherwise specified	delta-BHC
Dieldrin	Endosulfan I	Endosulfan II
Endosulfan sulfate	Endrin	Endrin aldehyde
Endrin ketone	gamma-BHC (Lindane)	Heptachlor
Heptachlor epoxide	Methoxychlor	Toxaphene

8082

PCB-1016	PCB-1221	PCB-1232
PCB-1242	PCB-1248	PCB-1254
PCB-1260		

8151A
2,4,5-TP (Silvex)
2,4-D

8260B

1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene
1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (EDB)
1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane
1,4-Dichlorobenzene	2-Butanone (Methyl ethyl ketone, MEK)	2-Chloroethyl vinyl ether
2-Hexanone	2-Nitropropane	2-Pentanone
4-Methyl-2-pentanone (Methyl isobutyl ketone, I	Acetone	Acetonitrile
Acrolein (Propenal)	Acrylonitrile	Benzene

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Environmental Protection Agency

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Merrillville, IN 46410

Hazardous and Solid Waste, Organic

8260B

Bromodichloromethane
Carbon disulfide
Chlorodibromomethane (Dibromochloromethan
Chloromethane
Dichloromethane (Methylene chloride)
Isopropylbenzene
Naphthalene
o-Xylene
Styrene
Toluene
Trichloroethene
Vinyl chloride
Bromoform
Carbon tetrachloride
Chloroethane
cis-1,2-Dichloroethene
Ethyl acetate
Methyl-t-butyl ether
n-Butanol
p-Xylene
tert-Butylbenzene
trans-1,2-Dichloroethene
Trichlorofluoromethane
Xylenes (Total)
Bromobenzene
Bromomethane
Chlorobenzene
Chloroform
cis-1,3-Dichloropropene
Ethylbenzene
m-Xylene
n-Butylbenzene
sec-Butylbenzene
Tetrachloroethene
trans-1,3-Dichloropropene
Vinyl acetate

8270C

1,2,4-Trichlorobenzene
1,3-Dichlorobenzene
2,4,6-Trichlorophenol
2,4-Dinitrophenol
2,6-Dinitrotoluene (2,6-DNT)
2-Methylnaphthalene
2-Nitrophenol
4,6-Dinitro-2-methylphenol
4-Chloroaniline
4-Nitrophenol
Acetophenone
Benzidine
Benzo(b)fluoranthene
Benzoic acid
Bis(2-chloroethyl) ether
Butyl benzyl phthalate
Dibenzofuran
Di-n-butyl phthalate
Fluorene
Hexachlorocyclopentadiene
Isophorone
Nitrobenzene
N-Nitrosodiphenylamine
Phenanthrene
Pyridine
1,2-Dichlorobenzene
1,4-Dichlorobenzene
2,4-Dichlorophenol
2,4-Dinitrotoluene (2,4-DNT)
2-Chloronaphthalene
2-Methylphenol
3,3'-Dichlorobenzidine
4-Bromophenyl phenyl ether
4-Chlorophenyl phenyl ether
Acenaphthene
Aniline
Benzo(a)anthracene
Benzo(g,h,i)perlyene
Benzyl alcohol
Bis(2-chloroisopropyl) ether
Chrysene
Diethyl phthalate
Di-n-octyl phthalate
Hexachlorobenzene
Hexachloroethane
m-Cresol (3-Methylphenol)
N-Nitrosodimethylamine
p-Cresol (4-Methylphenol)
Phenol
1,2-Diphenylhydrazine
2,4,5-Trichlorophenol
2,4-Dimethylphenol
2,6-Dichlorophenol
2-Chlorophenol
2-Nitroaniline
3-Nitroaniline
4-Chloro-3-methylphenol
4-Nitroaniline
Acenaphthylene
Anthracene
Benzo(a)pyrene
Benzo(k)fluoranthene
Bis(2-chloroethoxy) methane
Bis(2-ethylhexyl) phthalate
Dibenzo(a,h)anthracene
Dimethyl phthalate
Fluoranthene
Hexachlorobutadiene
Indeno(1,2,3-cd) pyrene
Naphthalene
N-Nitrosodi-n-propylamine
Pentachlorophenol
Pyrene

8310

Acenaphthene
Benzo(a)anthracene
Benzo(g,h,i)perylene
Dibenzo(a,h)anthracene
Indeno(1,2,3-cd) pyrene
Pyrene
Acenaphthylene
Benzo(a)pyrene
Benzo(k)fluoranthene
Fluoranthene
Naphthalene
Anthracene
Benzo(b)fluoranthene
Chrysene
Fluorene
Phenanthrene

State of Illinois
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Wastewater, Inorganic

SM2510B,18Ed
Specific Conductance

SM3500Cr-D,18Ed
Chromium VI

SM4500CL-B,18Ed
Chloride

SM4500CN-CE18Ed
Cyanide

SM4500CN-CG18Ed
Cyanide-amenable to chlorination

SM4500O-C,18Ed
Oxygen - Dissolved

SM5210B,18Ed
Biochemical Oxygen Demand (BOD)
Carboneous Biochemical Oxygen Demand (CB

USEPA110.2
Color

USEPA130.2
Hardness

USEPA150.1
Hydrogen Ion (pH)

USEPA160.1
Residue (TDS)

USEPA160.2
Residue (TSS)

USEPA160.3
Residue (Total)

USEPA160.4
Residue (Volatile)

USEPA1664RA
Oil and Grease

USEPA170.1
Temperature

USEPA200.7

Aluminum	Antimony	Arsenic
Barium	Beryllium	Boron
Cadmium	Calcium	Chromium
Cobalt	Copper	Iron
Lead	Magnesium	Manganese
Molybdenum	Nickel	Potassium
Selenium	Silica	Silver
Sodium	Thallium	Tin
Vanadium	Zinc	

State of Illinois
Environmental Protection Agency

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SIMALABS International - Merrillville
250 West 84th Drive
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Wastewater, Inorganic

Antimony
USEPA206.2

Arsenic
USEPA213.2

Cadmium
USEPA239.2

Lead
USEPA245.1

Mercury
USEPA270.2

Selenium
USEPA279.2

Thallium
USEPA310.1

Alkalinity
USEPA330.5

Chlorine
USEPA335.2

Cyanide
USEPA340.2

Fluoride
USEPA350.1

Ammonia
USEPA350.2

Ammonia
USEPA351.3

Total Kjeldahl Nitrogen
USEPA353.2

Nitrate-Nitrite (sum)
USEPA354.1

Nitrite
USEPA365.1

Orthophosphate (as P)
USEPA365.3

Phosphorus
USEPA375.4

Sulfate
USEPA405.1

Biochemical Oxygen Demand (BOD)
USEPA410.4

Chemical Oxygen Demand (COD)
USEPA204.2

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Merrillville, IN 46410

Wastewater, Inorganic *USEPA420.2*

Phenolics

Wastewater, Organic

USEPA608

4,4'-DDD	4,4'-DDE	4,4'-DDT
Aldrin	alpha-BHC	beta-BHC
Chlordane	delta-BHC	Dieldrin
Endosulfan I	Endosulfan II	Endosulfan sulfate
Endrin	Endrin aldehyde	gamma-BHC (Lindane)
Heptachlor	Heptachlor epoxide	Methoxychlor
PCB-1016	PCB-1221	PCB-1232
PCB-1242	PCB-1248	PCB-1254
PCB-1260	Toxaphene	

USEPA610

Acenaphthene	Acenaphthylene	Anthracene
Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene
Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene
Dibenzo(a,h)anthracene	Fluoranthene	Fluorene
Indeno(1,2,3-cd) pyrene	Naphthalene	Phenanthrene
Pyrene		

USEPA624

1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichlorobenzene
1,2-Dichloroethane	1,2-Dichloropropane	1,3-Dichlorobenzene
1,4-Dichlorobenzene	2-Chloroethylvinyl ether	Acetonitrile
Acrolein (Propenal)	Acrylonitrile	Benzene
Bromodichloromethane	Bromoform	Bromomethane
Carbon tetrachloride	Chlorobenzene	Chloroethane
Chloroform	Chloromethane	cis-1,3-Dichloropropene
Dibromochloromethane	Dichloromethane (Methylene chloride)	Ethylbenzene
Tetrachloroethene	Toluene	trans-1,2-Dichloroethene
trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane
Vinyl chloride	Xylenes (total)	

USEPA625

1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene
1,4-Dichlorobenzene	2,4,6-Trichlorophenol	2,4-Dichlorophenol
2,4-Dimethylphenol	2,4-Dinitrotoluene (2,4-DNT)	2,6-Dinitrotoluene (2,6-DNT)
2-Chloronaphthalene	2-Chlorophenol	2-Nitrophenol
3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol
4-Chlorophenyl phenyl ether	4-Nitrophenol	Acenaphthene
Acenaphthylene	Anthracene	Benzidine
Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene
Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate
Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-ethylhexyl) phthalate
Chrysene	Dibenzo(a,h)anthracene	Diethyl phthalate
Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate

State of Illinois
Environmental Protection Agency

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Merrillville, IN 46410

Wastewater, Organic

Fluorene
Hexachlorocyclopentadiene
Isophorone
N-Nitrosodimethylamine
Pentachlorophenol
Pyrene

USEPA625

Hexachlorobenzene
Hexachloroethane
Naphthalene
N-Nitrosodi-n-propylamine
Phenanthrene
Fluoranthene
Hexachlorobutadiene
Indeno(1,2,3-cd) pyrene
Nitrobenzene
N-Nitrosodiphenylamine
Phenol

APPENDIX E
SOUTH PORTION CONFIRMATION SAMPLE ANALYTICAL RESULTS
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

DATA VALIDATION MEMORANDUM

BURNS & McDONNELL

Client:	Peoples Gas	Prepared By:	Saba Athif
Site:	Hawthorne Regulator Station	Date:	November 15, 2004
Project #:	29168	Checked By:	Christy Barry
File No.:	I.7	Date:	November 16, 2004
Title:	Data Validation of Soil Sample Collected June 26, 2003		

PURPOSE

The purpose of this document is to present the evaluation and validation of soil sample analytical results.

VALIDATION CRITERIA

The evaluation and validation consisted of the following:

- Checked sample holding times and preservation.
- Reviewed laboratory blank analyses.
- Reviewed laboratory control samples.
- Reviewed laboratory annotations.

SAMPLING EFFORT

On June 26, 2003, one soil sample was collected and analyzed at the Peoples Gas Hawthorne Regulator Station in Chicago, Illinois.

LABORATORY

The sample was analyzed and validated by SIMALABS International of Merrillville, Indiana in accordance with the Illinois Site Remediation Program (SRP) analytical data reduction and validation guidelines.

CONCLUSIONS

Laboratory data have been reviewed and are acceptable for use without qualification. SIMALABS performed laboratory validation and determined that all analytical results were usable. Burns & McDonnell performed further evaluation and validation, determining that the overall quality of the analytical results was good.

REFERENCES

The following reference documents were used:

(1) Illinois Administrative Code, 2002. Site Remediation Program, Title 35: Environmental Program, Subtitle G: Waste Disposal, Chapter I: Pollution Control Board, Part 740.

(2) USEPA, 2001. *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, February.

(3) USEPA, 1986. *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods,* EPA Publication No. SW-846, [Third Edition (September 1986), as amended by Updates I (July 1992), II

(September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIIA (April 1998), Draft IVA (January 1998), and Draft IVB (November 2000)].

SAMPLE INFORMATION

One soil sample, HAS-CF01-001, was collected and analyzed for synthetic precipitate leaching procedure (SPLP) total and amenable cyanide by USEPA SW846 Method 9012A.

HOLDING TIME AND SAMPLE PRESERVATION EVALUATION

The analytical holding time for SPLP cyanide by Method 9012A is 14 days from date of collection to analysis. The sample extraction and analysis was performed within the holding time criterion; therefore, no qualification was necessary.

LABORATORY BLANK ANALYSIS EVALUATION

Two laboratory blanks were prepared and run for this sampling event. The blanks results were non-detect; therefore, no qualification was necessary.

LABORATORY CONTROL SAMPLE EVALUATION

Two laboratory control samples (LCS) were prepared and run for this sampling event. The required LCS percent recoveries were within the acceptable laboratory limit; therefore, no qualification was necessary.

LABORATORY ANNOTATION REVIEW

A review of the SIMALABS case narrative indicates that the overall quality of the analytical results is acceptable.

ANALYTICAL RESULTS

SIMALABS

INTERNATIONAL

RECEIVED

JUL 10 2003

Burns & McDonnell
Oak Brook, IL

REVISED
7/3/03
w/ SPLP Amen CW

July 08, 2003

Joan Gonzalez
Burns & McDonnell
2601 West 22nd Street
Oak Brook, IL 60523-1229

RE: Peoples Gas - Hawthorne Regulator Station

Work Order No.: ME0306611

Dear Joan Gonzalez:

SIMALABS International received 1 sample on 6/26/2003 4:15:00 PM for the analyses presented in the following report.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted. This report includes the numbered pages as well as the Cooler Inspection Report and original Chain of Custody form(s).

SIMALABS International of Merrillville, Indiana is an accredited laboratory under the requirements of the National Environmental Laboratory Accreditation Program (IL EPA lab #100435). All data included has been reviewed for and meets all project specific and Quality Control requirements of this accreditation, unless otherwise noted. This report shall not be reproduced except in full, without the written approval of SIMALABS International.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,
SIMALABS International

Ronald J. Misiunas
Client Services Manager

Enclosures

250 West 84th Drive, Merrillville, IN 46410 TEL 800.536.8379 TEL 219.769.8378 FAX 219.769.1664

SIMALABS
INTERNATIONAL

SIMALABS International

Date: *08-Jul-03*

CLIENT: Burns & McDonnell
Project: Peoples Gas - Hawthorne Regulator Station
Lab Order: ME0306611

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
ME0306611-01A	HAS-CF01-001	HAS-CF01-001	6/26/2003 11:50:00 AM	6/26/2003

SIMALABS
INTERNATIONAL

ANALYTICAL RESULTS

Date: *Tuesday, July 08, 2003*

Client:	Burns & McDonnell	***Client Project:***	Peoples Gas - Hawthorne Reg
		Work Order:	ME0306611
Client Sample ID:	HAS-CF01-001	***SIMALABS ID:***	ME0306611-01A
Sample Description:	HAS-CF01-001		
Sample Matrix:	Soil		
Collection Date:	06/26/03		
Date Received:	06/26/03		

Analyses	Samp Type	Result	Reporting Limit	Qual	Units	DF	Date / Time Analyzed
CYANIDE, SPLP LEACHED Method: **SW9012A** Prep Date/Time: **6/27/2003 9:15:00 AM** Analyst: **LW**							
Cyanide, Total	A	***0.036***	0.0050		mg/L	1	6/27/2003 1:03:20 PM
AMENABLE CYANIDE, SPLP LEACHE Method: **SW9012A** Prep Date/Time: **6/30/2003 10:30:00 AM** Analyst: **LW**							
Cyanide, Amenable to Chlorination	A	***0.012***	0.0050		mg/L	1	6/30/2003 1:51:32 PM

Samp Type: A - Analyte, S - Surrogate, I - Internal Standard
T - Tentatively Identified Compound (TIC,concentration estimated)

DF - Dilution Factor

Qual: ND - Not Detected at the Reporting Limit
B - Detected in the associated Method Blank
* - Exceeds Maximum Contaminant Level

S - Spike recovery outside recovery limits
SD - Value diluted out
R - RPD outside accepted recovery limits
E - Value above quantitation range

I -Matrix Interference

H - Analyte was prepared and/or analyzed outside of the analytical method holding time

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX 219.769.1664

SIMALABS International

Date: *08-Jul-03*

CLIENT: Burns & McDonnell
Work Order: ME0306611
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 20886

Sample ID: PB0627 | SampType: MBLK | TestCode: 1312_CN | Units: mg/L | Prep Date: 6/27/2003 9:15:00 AM | Run ID: LACHAT-2_030627A
Client ID: ZZZZZ | Batch ID: 20886 | TestNo: SW9012A | Analysis Date: 6/27/2003 12:57:37 PM | SeqNo: 708169

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	ND	0.0050									

Sample ID: LCS0627 | SampType: LCS | TestCode: 1312_CN | Units: mg/L | Prep Date: 6/27/2003 9:15:00 AM | Run ID: LACHAT-2_030627A
Client ID: ZZZZZ | Batch ID: 20886 | TestNo: SW9012A | Analysis Date: 6/27/2003 12:59:01 PM | SeqNo: 708170

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.196	0.0050	0.2	0	98	90	110	0	0		

Sample ID: ME0306589-03BMS | SampType: MS | TestCode: CN_TW | Units: mg/L | Prep Date: 6/27/2003 9:15:00 AM | Run ID: LACHAT-2_030627A
Client ID: ZZZZZ | Batch ID: 20886 | TestNo: SW-9012A | Analysis Date: 6/27/2003 1:23:27 PM | SeqNo: 708187

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.1998	0.0050	0.2	0	99.9	64.9	138	0	0		

Sample ID: ME0306589-03BMS | SampType: MSD | TestCode: CN_TW | Units: mg/L | Prep Date: 6/27/2003 9:15:00 AM | Run ID: LACHAT-2_030627A
Client ID: ZZZZZ | Batch ID: 20886 | TestNo: SW-9012A | Analysis Date: 6/27/2003 1:24:53 PM | SeqNo: 708188

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.2026	0.0050	0.2	0	101	64.9	138	0.1998	1.41	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
H - Analyte was prepared and/or analyzed outside of the analytical method holding time
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: ME0306611
Project: Peoples Gas - Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 20919

Sample ID: PB0630 | SampType: MBLK | TestCode: 1312_CN_A | Units: mg/L | Prep Date: 6/30/2003 10:30:00 AM | Run ID: LACHAT-2_030630A
Client ID: ZZZZZ | Batch ID: 20919 | TestNo: SW9012A | Analysis Date: 6/30/2003 1:48:41 PM | SeqNo: 709170

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Amenable to Chlorination	ND	0.0050									

Sample ID: LCS0630 | SampType: LCS | TestCode: CN_TEPA | Units: mg/L | Prep Date: 6/30/2003 10:30:00 AM | Run ID: LACHAT-2_030630A
Client ID: ZZZZZ | Batch ID: 20919 | TestNo: E335.2_r3_83 | Analysis Date: 6/30/2003 1:50:07 PM | SeqNo: 709171

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Amenable to Chlorination	0.1818	0.0050	0.2	0	90.9	90	110	0	0		

Sample ID: ME0306628-02AMS | SampType: MS | TestCode: CN_TEPA | Units: mg/L | Prep Date: 6/30/2003 10:30:00 AM | Run ID: LACHAT-2_030630A
Client ID: ZZZZZ | Batch ID: 20919 | TestNo: E335.2_r3_83 | Analysis Date: 6/30/2003 2:09:10 PM | SeqNo: 709182

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.2008	0.0050	0.2	0.01419	93.3	64.9	138	0	0		

Sample ID: ME0306628-02AMS | SampType: MSD | TestCode: CN_TEPA | Units: mg/L | Prep Date: 6/30/2003 10:30:00 AM | Run ID: LACHAT-2_030630A
Client ID: ZZZZZ | Batch ID: 20919 | TestNo: E335.2_r3_83 | Analysis Date: 6/30/2003 2:10:33 PM | SeqNo: 709183

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide, Total	0.207	0.0050	0.2	0.01419	96.4	64.9	138	0.2008	3.05	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
H - Analyte was prepared and/or analyzed outside of the analytical method holding time
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

SIMALABS International
250 W. 84th Drive
Merrillville, IN 46410
(219) 769-8378

COOLER INSPECTION

Thursday, June 26, 2003

Client Name BURNS & MCDONNEL

Work Order Number ME0306611

Checklist completed by [signature] 6-26-03
Signature | Date

Date / Time Received: 6/26/2003 4:15:00 PM

Received by: DP

Reviewed by [initials] [date]
Initials | Date

Carrier name: SIMALABS

After-Hour Arrival?	Yes ☐	No ☑	
Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody included sufficient client identification?	Yes ☑	No ☐	
Chain of custody included sufficient sample collector information?	Yes ☑	No ☐	
Chain of custody included a sample description?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Chain of custody identified the appropriate matrix?	Yes ☑	No ☐	
Chain of custody included date of collection?	Yes ☑	No ☐	
Chain of custody included time of collection?	Yes ☑	No ☐	
Chain of custody identified the appropriate number of containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Chain of custody identified the appropriate preservatives?	Yes ☑	No ☐	
Samples properly preserved?	Yes ☑	No ☐	

If No, adjusted by? _____ Date/Time _____

Chain of custody included the requested analyses?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Samples received on ice?	Yes ☑	No ☐
Container/Temp Blank temperature	Temp: 6 °C	
VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐ No ☐

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

General Comments:

Sample ID	Client Sample ID	Comments
ME0306611-01A	HAS-CF01-001	24hr TAT

Client representative contacted: _____ Date contacted: _____

Contacted by: _____ Regarding: _____

Notes: _____

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

RUSH!

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: SIMALABS
Address: 250 W 84TH DR
City/State/Zip: MERRILLVILLE IN 46410
Telephone: 219-769-8378

Document Control No: HAS-045-2003
Lab. Reference No. or Episode No.:

Project Number: 29168-4.07
Site Name: PEOPLES GAS - HAWTHORNE AVE STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: SPLP CYANIDE				0306611			Remarks
HAS	CF01-001		—	—	4.5'	4.5'	6/26/03	1150		X		1	X				01-		A	JAR LABEL INCORRECT DEPTH SHOULD B 4.5' DEPTH, NOT 4.0

Sampler (signature): Eric J Prem
Sampler (signature):
Custody Seal Number: 062603STL-001, 062603STL-002
Special Instructions: RUSH - ASAP TAT TEMP BLANK IN COOLER

Relinquished By (signature): 1. Kathi Wotel — Date/Time: 6/26/03 1400 — Received By (signature): [signature] — Date/Time: 6-26-03/1400
Ice Present in Container: Yes ☐ No ☐
Temperature Upon Receipt:

Relinquished By (signature): 2. [signature] — Date/Time: 6-26-03/1615 — Received By (signature): [signature] — Date/Time: 6-26-03/1615
Laboratory Comments:

LABORATORY ACCREDITATION

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL LABORATORY ACCREDITATION

is hereby granted to

SIMALABS INTERNATIONAL - MERRILLVILLE
250 WEST 84TH DRIVE
MERRILLVILLE, IN 46410

ACCREDITATION NUMBER #100435

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part 186 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part 186. Please contact the Illinois EPA Environmental Laboratory Accreditation Program (IL ELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Illinois is not an endorsement or a guarantee of validity of the data generated by the laboratory.

Janet Cruse

Janet Cruse
Accreditation Office
Environmental Laboratory Accreditation Program

Certificate No.: 000762
Expiration Date: 01/30/2004
Issued On: 01/31/2003

State of Illinois
Environmental Protection Agency

Certificate No.: 000762

Awards the Certificate of Approval

SIMALABS International - Merrillville
250 West 84th Drive
Merrillville, IN 46410

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part 186 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part 186. Please contact the Illinois EPA Environmental Laboratory Accreditation Program (IL ELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Illinois is not an endorsement or a guarantee of validity of the data generated by the laboratory.

Hazardous and Solid Waste, Inorganic

1010

Ignitability

1311

TCLP (Organic and Inorganic)

1312

Synthetic Precipitation Leaching Procedure

6010B

Aluminum	Antimony	Arsenic
Barium	Beryllium	Cadmium
Calcium	Chromium	Cobalt
Copper	Iron	Lead
Magnesium	Manganese	Molybdenum
Nickel	Potassium	Selenium
Silver	Sodium	Strontium
Thallium	Vanadium	Zinc

7041

Antimony

7060A

Arsenic

7131A

Cadmium

7196A

Chromium VI

7421

Lead

7470A

Mercury

7471A

Mercury

7741A

Selenium

7841

Thallium

9012A

Cyanide

State of Illinois
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Hazardous and Solid Waste, Inorganic

9030B

Sulfides

9034

Sulfides

9041A

Hydrogen Ion (pH)

9045C

Hydrogen Ion (pH)

9066

Phenolics

9095A

Paint Filter

Chapter 7/9014

Reactive Cyanide

Chapter 7/9034

Reactive Sulfide

Hazardous and Solid Waste, Organic

8015B

Diesel range organics (DRO)
Gasoline range organics (GRO)

8081A

1,2-Dibromo-3-chloropropane (DBCP)
4,4'-DDD
4,4'-DDE
4,4'-DDT
alpha-BHC
alpha-Chlordane
beta-BHC
Chlordane - not otherwise specified
delta-BHC
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Endrin ketone
gamma-BHC (Lindane)
Heptachlor
Heptachlor epoxide
Methoxychlor
Toxaphene

8082

PCB-1016
PCB-1221
PCB-1232
PCB-1242
PCB-1248
PCB-1254
PCB-1260

8151A

2,4,5-TP (Silvex)
2,4-D

8260B

1,1,1,2-Tetrachloroethane
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,1-Dichloropropene
1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (EDB)
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
2-Butanone (Methyl ethyl ketone, MEK)
2-Chloroethyl vinyl ether
2-Hexanone
2-Nitropropane
2-Pentanone
4-Methyl-2-pentanone (Methyl isobutyl ketone, I
Acetone
Acetonitrile
Acrolein (Propenal)
Acrylonitrile
Benzene

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Hazardous and Solid Waste, Organic

Bromodichloromethane
Carbon disulfide
Chlorodibromomethane (Dibromochloromethan
Chloromethane
Dichloromethane (Methylene chloride)
Isopropylbenzene
Naphthalene
o-Xylene
Styrene
Toluene
Trichloroethene
Vinyl chloride

8260B

Bromoform
Carbon tetrachloride
Chloroethane
cis-1,2-Dichloroethene
Ethyl acetate
Methyl-t-butyl ether
n-Butanol
p-Xylene
tert-Butylbenzene
trans-1,2-Dichloroethene
Trichlorofluoromethane
Xylenes (Total)
Bromobenzene
Bromomethane
Chlorobenzene
Chloroform
cis-1,3-Dichloropropene
Ethylbenzene
m-Xylene
n-Butylbenzene
sec-Butylbenzene
Tetrachloroethene
trans-1,3-Dichloropropene
Vinyl acetate

8270C

1,2,4-Trichlorobenzene
1,3-Dichlorobenzene
2,4,6-Trichlorophenol
2,4-Dinitrophenol
2,6-Dinitrotoluene (2,6-DNT)
2-Methylnaphthalene
2-Nitrophenol
4,6-Dinitro-2-methylphenol
4-Chloroaniline
4-Nitrophenol
Acetophenone
Benzidine
Benzo(b)fluoranthene
Benzoic acid
Bis(2-chloroethyl) ether
Butyl benzyl phthalate
Dibenzofuran
Di-n-butyl phthalate
Fluorene
Hexachlorocyclopentadiene
Isophorone
Nitrobenzene
N-Nitrosodiphenylamine
Phenanthrene
Pyridine
1,2-Dichlorobenzene
1,4-Dichlorobenzene
2,4-Dichlorophenol
2,4-Dinitrotoluene (2,4-DNT)
2-Chloronaphthalene
2-Methylphenol
3,3'-Dichlorobenzidine
4-Bromophenyl phenyl ether
4-Chlorophenyl phenyl ether
Acenaphthene
Aniline
Benzo(a)anthracene
Benzo(g,h,i)perlyene
Benzyl alcohol
Bis(2-chloroisopropyl) ether
Chrysene
Diethyl phthalate
Di-n-octyl phthalate
Hexachlorobenzene
Hexachloroethane
m-Cresol (3-Methylphenol)
N-Nitrosodimethylamine
p-Cresol (4-Methylphenol)
Phenol
1,2-Diphenylhydrazine
2,4,5-Trichlorophenol
2,4-Dimethylphenol
2,6-Dichlorophenol
2-Chlorophenol
2-Nitroaniline
3-Nitroaniline
4-Chloro-3-methylphenol
4-Nitroaniline
Acenaphthylene
Anthracene
Benzo(a)pyrene
Benzo(k)fluoranthene
Bis(2-chloroethoxy) methane
Bis(2-ethylhexyl) phthalate
Dibenzo(a,h)anthracene
Dimethyl phthalate
Fluoranthene
Hexachlorobutadiene
Indeno(1,2,3-cd) pyrene
Naphthalene
N-Nitrosodi-n-propylamine
Pentachlorophenol
Pyrene

8310

Acenaphthene
Benzo(a)anthracene
Benzo(g,h,i)perylene
Dibenzo(a,h)anthracene
Indeno(1,2,3-cd) pyrene
Pyrene
Acenaphthylene
Benzo(a)pyrene
Benzo(k)fluoranthene
Fluoranthene
Naphthalene
Anthracene
Benzo(b)fluoranthene
Chrysene
Fluorene
Phenanthrene

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Wastewater, Inorganic

SM2510B,18Ed
Specific Conductance

SM3500Cr-D,18Ed
Chromium VI

SM4500CL-B,18Ed
Chloride

SM4500CN-CE18Ed
Cyanide

SM4500CN-CG18Ed
Cyanide-amenable to chlorination

SM4500O-C,18Ed
Oxygen - Dissolved

SM5210B,18Ed
Biochemical Oxygen Demand (BOD)
Carboneous Biochemical Oxygen Demand (CB

USEPA110.2
Color

USEPA130.2
Hardness

USEPA150.1
Hydrogen Ion (pH)

USEPA160.1
Residue (TDS)

USEPA160.2
Residue (TSS)

USEPA160.3
Residue (Total)

USEPA160.4
Residue (Volatile)

USEPA1664RA
Oil and Grease

USEPA170.1
Temperature

USEPA200.7

Aluminum	Antimony	Arsenic
Barium	Beryllium	Boron
Cadmium	Calcium	Chromium
Cobalt	Copper	Iron
Lead	Magnesium	Manganese
Molybdenum	Nickel	Potassium
Selenium	Silica	Silver
Sodium	Thallium	Tin
Vanadium	Zinc	

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Wastewater, Inorganic

Antimony
USEPA206.2
Arsenic
USEPA213.2
Cadmium
USEPA239.2
Lead
USEPA245.1
Mercury
USEPA270.2
Selenium
USEPA279.2
Thallium
USEPA310.1
Alkalinity
USEPA330.5
Chlorine
USEPA335.2
Cyanide
USEPA340.2
Fluoride
USEPA350.1
Ammonia
USEPA350.2
Ammonia
USEPA351.3
Total Kjeldahl Nitrogen
USEPA353.2
Nitrate-Nitrite (sum)
USEPA354.1
Nitrite
USEPA365.1
Orthophosphate (as P)
USEPA365.3
Phosphorus
USEPA375.4
Sulfate
USEPA405.1
Biochemical Oxygen Demand (BOD)
USEPA410.4
Chemical Oxygen Demand (COD)
USEPA204.2

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Wastewater, Inorganic

USEPA420.2

Phenolics

Wastewater, Organic

USEPA608

4,4'-DDD	4,4'-DDE	4,4'-DDT
Aldrin	alpha-BHC	beta-BHC
Chlordane	delta-BHC	Dieldrin
Endosulfan I	Endosulfan II	Endosulfan sulfate
Endrin	Endrin aldehyde	gamma-BHC (Lindane)
Heptachlor	Heptachlor epoxide	Methoxychlor
PCB-1016	PCB-1221	PCB-1232
PCB-1242	PCB-1248	PCB-1254
PCB-1260	Toxaphene	

USEPA610

Acenaphthene	Acenaphthylene	Anthracene
Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene
Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene
Dibenzo(a,h)anthracene	Fluoranthene	Fluorene
Indeno(1,2,3-cd) pyrene	Naphthalene	Phenanthrene
Pyrene		

USEPA624

1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichlorobenzene
1,2-Dichloroethane	1,2-Dichloropropane	1,3-Dichlorobenzene
1,4-Dichlorobenzene	2-Chloroethylvinyl ether	Acetonitrile
Acrolein (Propenal)	Acrylonitrile	Benzene
Bromodichloromethane	Bromoform	Bromomethane
Carbon tetrachloride	Chlorobenzene	Chloroethane
Chloroform	Chloromethane	cis-1,3-Dichloropropene
Dibromochloromethane	Dichloromethane (Methylene chloride)	Ethylbenzene
Tetrachloroethene	Toluene	trans-1,2-Dichloroethene
trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane
Vinyl chloride	Xylenes (total)	

USEPA625

1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene
1,4-Dichlorobenzene	2,4,6-Trichlorophenol	2,4-Dichlorophenol
2,4-Dimethylphenol	2,4-Dinitrotoluene (2,4-DNT)	2,6-Dinitrotoluene (2,6-DNT)
2-Chloronaphthalene	2-Chlorophenol	2-Nitrophenol
3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol
4-Chlorophenyl phenyl ether	4-Nitrophenol	Acenaphthene
Acenaphthylene	Anthracene	Benzidine
Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene
Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate
Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-ethylhexyl) phthalate
Chrysene	Dibenzo(a,h)anthracene	Diethyl phthalate
Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate

State of Illinois
Environmental Protection Agency

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250 West 84th Drive
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Wastewater, Organic

Fluorene
Hexachlorocyclopentadiene
Isophorone
N-Nitrosodimethylamine
Pentachlorophenol
Pyrene

USEPA625

Hexachlorobenzene
Hexachloroethane
Naphthalene
N-Nitrosodi-n-propylamine
Phenanthrene
Fluoranthene
Hexachlorobutadiene
Indeno(1,2,3-cd) pyrene
Nitrobenzene
N-Nitrosodiphenylamine
Phenol

APPENDIX F
IMPORTED BACKFILL MATERIAL LETTERS AND TROXLER® CERTIFICATION
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

BACKFILL MATERIAL LETTERS

Vulcan
Materials Company

Chad Ragsdale
Asst. Superintendent/ Quality Control Supervisor
Midwest Division

5500 Joliet Rd.
McCook, IL 60525
Telephone 708 987-4760
Fax 708 387-4755
Mobile 630 918-9836
E-mail: ragsdalc@vmcmail.com

March 19, 2003

To: Burns & McDonnell
Attn: Diane Saftic
Re: 1701 N. Kingsbury Jobsite

This is to certify that the CA-6 aggregate shipped from the McCook quarry 50312-378 is from approved stock that was (1) IDOT-tested and/or covered under the IDOT process control program, or (2) tested under the IDOT Aggregate Gradation Control System. This aggregate is from virgin dolomitic limestone.

Sincerely,

Chad Ragsdale
Quality Control Supervisor

Material Service Corporation
A GENERAL DYNAMICS COMPANY

Memorandum

To: Eric Pruess
From: Jeff Stewart
cc:
Date: January 21, 2003
Re: CA-6 Limestone

File No.:

Attachments:

The CA-6 Limestone you requested would come out of our McCook facility located at 47th. And Plainfield Road (Yard 19). The material is a clean virgin material. If I can be of any further help do not hesitate to call me at (815) 354-3000

Modified Procter
132 to 138 pounds per cubic feet
5% to 6% moister

Standard Procter
125 to 131 pounds per cubic feet
5% to 6% moister

Thank You

Jeff Stewart
Sales Representative

222 N. LaSalle Street
Chicago, IL 60601-1090
Tel 312-443-6735
Fax 312-443-7096
dpeden@material-service.com

TROXLER® CERTIFICATION

Certificate of Completion

This certifies that

Eric Preuss

has successfully completed the

Nuclear Gauge Safety Training Class

conducted by the training department of

Troxler Electronic Laboratories, Inc.

Greg Farnen	8/29/02	*William F. Troxler, Jr.*
Instructor	Date	President

TROXLER
Troxler Electronic Laboratories, Inc.
PO Box 12057 • 3008 Cornwallis Rd. • Research Triangle Park, NC 27709
Phone: (919) 549-8661 • Fax: (919) 549-0761 • Web site: www.troxlerlabs.com

Enrollment ID: 828

HAZMAT Certification

as required by 49 CFR 172, Subpart H

Recertification required 3 years from training date

This certifies that

Eric Preuss

has been trained and tested in accordance with the U.S. Department of Transporation hazardous material requirements for general awareness/familiarization, function-specific, and safety training as related to the transportation of nuclear gauges. A description of the training course materials is available from Troxler.

8/29/02	8/29/05	Greg Farnen
Training Date	*Expiration Date*	*Instructor*

TROXLER

Troxler Electronic Laboratories, Inc.
PO Box 12057 • 3008 Cornwallis Rd. • Research Triangle Park, NC 27709
Phone: (919) 549-8661 • Fax: (919) 549-0761 • www.troxlerlabs.com

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Certified by

Company Official: _____

Company Name: _____

Company Address: _____

_____

_____

Enrollment ID: 828

APPENDIX G
SVE PERMITS
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

CITY OF CHICAGO

FILE A10

INSTALLATION PERMIT

CITY OF CHICAGO
DEPARTMENT OF ENVIRONMENT
POLLUTION PREVENTION UNIT

PERMIT NUMBER
030611549

APPLICANT	OWNER
Hawthorne Regulator Station 1740 N Marcey Street Chicago, IL 60614	Burns & McDonnell Engineering Co. 2601 W 22ND ST Oak Brook, IL 60523

DATE ISSUED	INSTALLATION ADDRESS	BUILDING PERMIT
6/23/2003	1740 N Marcey	

ITEM	# OF UNITS	EQUIPMENT DESCRIPTION
01	1	Process Equipment/Air-Fluid Separator/ Model:National/Dimensions:18"Dia. x 5'

FILE FEE	PERMIT FEE	INSPECTION FEE	TOTAL FEE:
$20.00	$40.00	$30.00	$90.00

PERMISSION is hereby granted as provided in Title 11-4 of the Municipal Code of Chicago, to the APPLICANT to install, repair or reconstruct the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file at the DEPARTMENT of ENVIRONMENT. This permit may be revoked at any time. This permit is not transferable nor is it a waiver of liability to an infraction of any City ordinance. All fees received by the Department are deposited with the DEPARTMENT of REVENUE for the Corporate Fund. An annual inspection for the equipment is required for a Certificate of Operation. The Law requires that "each Installation Permit shall be posted at or near the work for which it was issued" (Amendment, Council J, 6-19-68)

J. Marco Jimenez
COMMISSIONER

165106-frm-8-6

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

PEOPLES GAS - HAWTHORN
FILE A10

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

P.O. BOX 19506, SPRINGFIELD, ILLINOIS 62794-9506
RENEE CIPRIANO, DIRECTOR

217/782-2113

RECEIVED
AUG 29 2003
Burns & McDonnell
Oak Brook, IL

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Burns & McDonnell Engineering
Attn: Joan Gonzalez
2601 West 22nd Street
Oak Brook, Illinois 60523-1229

Application No.: 03060050
Applicant's Designation: 29168-4.07
Subject: Soil Vapor Extraction System
Date Issued: August 26, 2003

I.D. No.: 031600GOP
Date Received: June 23, 2003

Operating Permit Expiration Date: August 26, 2004

Location: 1740 North Marcey Street, Chicago 60614

This permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Soil Vapor Extraction system controlled by Carbon Adsorption System

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This operating permit is effective only if the Permittee has complied with all standard conditions of the construction permit.

b. Operation of the emission units included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. The emissions of hazardous air pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements of Section 112(G) of the Clean Air Act.

3. Emissions and operation of soil remediation process shall not exceed the following limits:

Process	Pollutant	Emissions (Lb/Hour)	Emissions (Tons/Year)
Soil Vapor Extraction With Carbon Adsorption	VOM	7.18	7.75
	HAPs	6.07	6.55

These limits are based on maximum values for vacuum rate of 80 cfm from the extraction wells, a VOM soil gas concentration of 57,222 ppmv, a HAPs soil gas concentration of 45,662 ppmv, 2,160 hours of operation per year, and a control efficiency of 90% from the carbon adsorption system, and information provided in the application. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. Pursuant to 35 Ill. Adm. Code Section 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in Sections 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of Subpart G shall apply only to photochemically reactive material.

5. The Soil Vapor Extraction system controlled by Carbon Adsorption System shall be equipped with an air flow measurement device that is designed to measure air flow from the extraction well and total air flow of the system to insure that the air flow from the extraction wells does not exceed 80 cfm and total air flow does not exceed 100 cfm.

6. In the event that the operation of this emission unit results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.

7a. The Permittee shall install a carbon adsorption system with a saturation indicator, prior to operating the soil vapor extraction system, to control organic material emissions.

b. The Permittee shall change the carbon filters when the saturation indicator indicates that the carbon is saturated.

c. The Permittee shall keep records of the maintenance and operation of the carbon adsorption system including the replacement of the carbon filters. These records shall be retained for tow years and shall be available for inspection by the Illinois EPA.

8. The Permittee shall maintain the following items:

   a. Hours of operation of the soil vapor extraction system (hours/month and hours/year);

   b. Soil vapor concentration levels (ppmv);

   c. Air flow from the extraction well each day of operation; and

   d. VOM and HAP emissions (lb/month and tons/year).

9. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

10a. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

b. Pursuant to condition 10a, the Permittee shall report any instance of exceedance of air flow restrictions of conditions 3 and 5 for a period of more than 1 hour.

11. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

12. Persons with operating permits must obtain a revised permit for any of the following changes at the source:

a. An increase in emissions above the amount the emission unit or the source is permitted to emit;

b. A modification;

c. A change in operations that will result in the source's noncompliance with conditions in the existing permit; or

d. A change in ownership, company name, or address, so that the application or existing permit is not longer accurate.

13. This permit shall expire one year from the date issued.

During the analysis of this permit application, it was determined that your facility has the potential to emit more than 25 tpy of VOM, 25 tpy of total combined HAPs, 10 tpy of any single HAP and will be classified as a major source under the Clean Air Act Permit Program (CAAPP). To avoid the CAAPP permitting requirements, you may want to consider applying for a Federally

Enforceable State Operating Permit (FESOP). A FESOP is an operating permit, which contains federally enforceable limits in the form of permit conditions, which effectively restrict the potential emissions of a source to below major source thresholds, thereby excluding the source from the CAAPP. Please contact the Permit Section at 217/782-2113 to request the necessary application forms.

It should be noted that issuance of this permit does not relieve the Permittee from compliance with the permit requirements of Section 21 and 39 of the Environmental Protection Act with respect to a waste management operation, nor does it constitute a release from further responsibility for preventive or correction action as defined under Section 4(y) of the Environmental Protection Act. The Bureau of Land, Division of Remediation Management (217/782-6760) should be contacted prior to the installation of this equipment.

If you have any questions on this permit, please contact Eric Jones at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:EEJ:psj

cc: Region 1

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P. O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless susperseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:

   a. to enter the permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,

   b. to have access to and to copy any records required to be kept under the terms and conditions of this permit,

   c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,

   d. to obtain and remove samples of any discharge or emissions of pollutants, and

   e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

   a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,

   b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,

   c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,

   d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.

   b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.

7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:

   a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or

   b. upon finding that any standard or special conditions have been violated, or

   c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P.O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

STANDARD CONDITIONS FOR OPERATING PERMITS

May, 1993

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special permit conditions(s).

1. The issuance of this permit does not release the Permittee from compliance with state and federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statues and regulations of the United States or the State of Illinois or with applicable local laws, ordinances and regulations.

2. The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be ground for revocation under 35 Ill. Adm. Code 201.166.

3. a. The Permittee shall not authorize, cause, direct or allow any modification, as defined in 35 Ill. Adm. Code 201.102, of equipment, operations or practices which are reflected in the permit application as submitted unless a new application or request for revision of the existing permit is filed with the Illinois EPA and unless a new permit or revision of the existing permit(s) is issued for such modification.

   b. This permit only covers emission sources and control equipment while physically present at the indicated plant location(s). Unless the permit specifically provides for equipment relocation, this permit is void for an item of equipment on the day it is removed from the permitted location(s) or if all equipment is removed, notwithstanding the expiration date specified on the permit.

4. The Permittee shall allow any duly authorized agent of the Illinois EPA, upon the presentation of credentials, at reasonable times:

   a. To enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit;

   b. To have access to and to copy any records required to be kept under the terms and conditions of this permit;

   c. To inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit;

   d. To obtain and remove samples of any discharge or emission of pollutants; and

   e. To enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring or recording any activity, discharge or emission authorized by this permit.

5. The issuance of this permit:

   a. Shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are located;

PRINTED ON RECYCLED PAPER

b. Does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the facilities;

c. Does not take into consideration or attest to the structural stability of any unit or part of the project; and

d. In no manner implies or suggests that the Illinois EPA (or its officers, agents, or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. The facilities covered by this permit shall be operated in such a manner that the disposal of air contaminants collected by the equipment shall not cause a violation of the Environmental Protection Act or regulations promulgated thereunder.

7. The Permittee shall maintain all equipment covered under this permit in such a manner that the performance of such equipment shall not cause a violation of the Environmental Protection Act or regulations promulgated thereuner.

8. The Permittee shall maintain a maintenance record on the premises for each item of air pollution control equipment. This records shall be made available to any agent of the Environmental Protection Agency at any time during normal working hours and/or operating hours. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9. No person shall cause or allow continued operation during malfunction, breakdown or startup of any emission source or related air pollution control equipment if such operation would cause a violation of an applicable emission standard or permit limitation. Should a malfunction, breakdown or startup occur which results in emissions in excess of any applicable standard or permit limitation, the Permittee shall:

   a. Immediately report the incident to the Illinois EPA's Regional Field Operations Section Office by telephone, telegraph, or other method as constitutes the fastest available alternative, and shall comply with all reasonable directives of the Illinois EPA with respect to the incident;

   b. Maintain the following records for a period of no less than two (2) years:

      i. Date and duration of malfunction, breakdown, or startup,

      ii. Full and detailed explanation of the cause,

      iii. Contaminants emitted and an estimate of quantity of emissions,

      iv. Measures taken to minimize the amount of emissions during the malfunction, breakdown or startup, and

      v. Measures taken to reduce future occurrences and frequency of incidents.

10. If the permit application contains a compliance program and project completion schedule, the Permittee shall submit a project completion status report within thirty (30) days of any date specified in the compliance program and project completion schedule or at six month intervals, whichever is more frequent.

11. The Permittee shall submit an Annual Emission Report as required by 35 Ill. Adm. Code 201.302 and 35 Ill. Adm. Code Part 254.

Directory
Environmental Protection Agency
Bureau of Air

May 22, 2003

For assistance in preparing a permit application, contact the Permit Section:

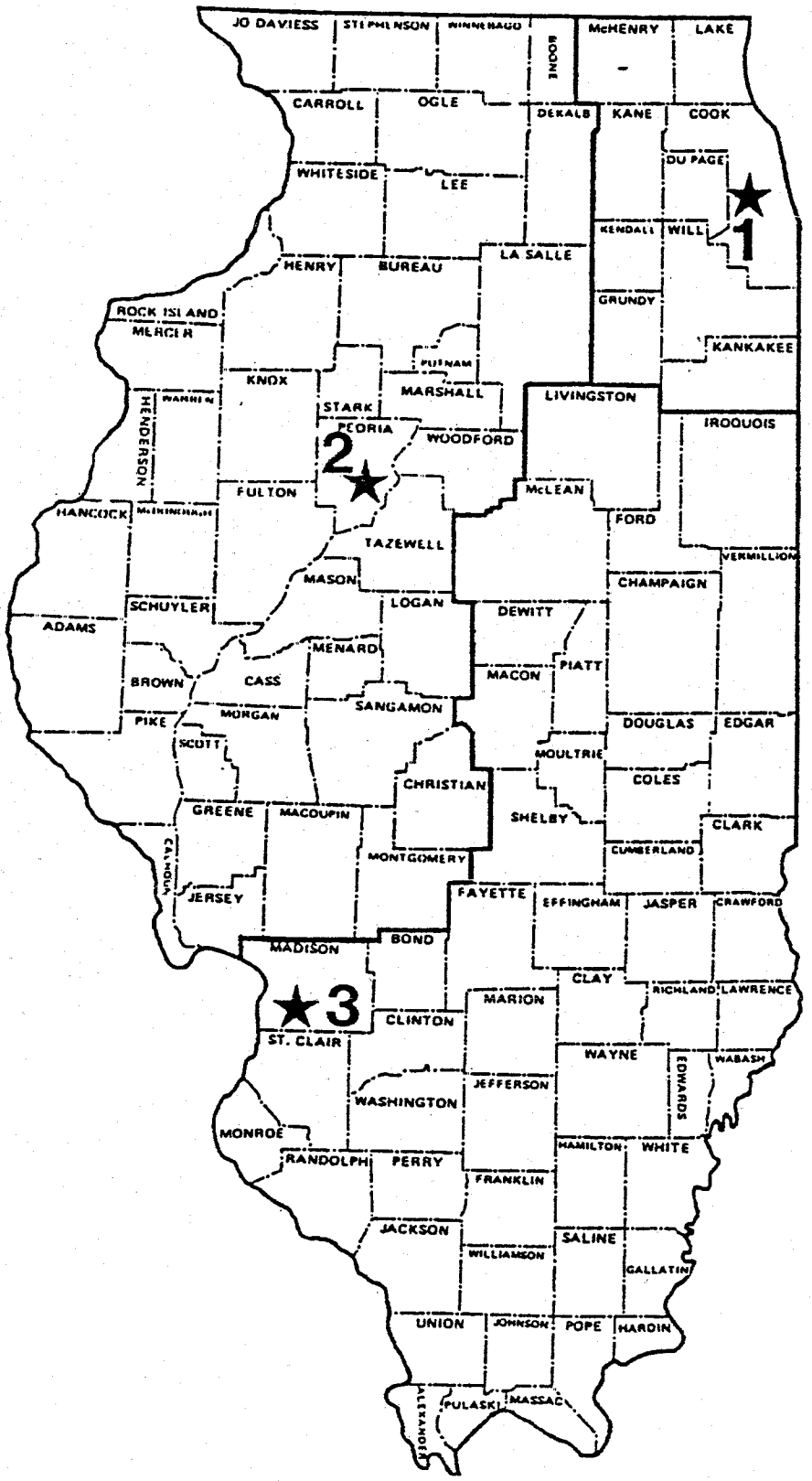
Illinois EPA
Division of Air Pollution Control
Permit Section
1021 N. Grand Ave E.
P.O. Box 19506
Springfield, Illinois 62794-9506
217/782-2113

Or contact a regional office of the Field Operations Section. The regional offices and their areas of responsibility are shown on the map. The addresses and telephone numbers of the regional offices are as follows:

Illinois EPA
Region 1
Bureau of Air, FOS
9511 West Harrison
Des Plaines, Illinois 60016
847/294-4000

Illinois EPA
Region 2
5415 North Univiversity
Peoria, Illinois 61614
309/693-5461

Illinois EPA
Region 3
2009 Mall Street
Collinsville, Illinois 62234
618/346-5120



APPENDIX H
SVE SYSTEM OPERATION AND MAINTENANCE RECORDS
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

SVE REAL-TIME AMBIENT AIR MONITORING INSTRUMENT CALIBRATION LOGS

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MINI RAE 2000 Sampler: D. SAFTIC / AMY HANRAHAN

Serial Number: U01233X (FIELD ENVIRONMENTAL)

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
11/12/03	0710	CLOUDY, ~54°F	0.0	Isobutylene	100	101	NONE	DVS
11/13/03	1030	PT. CLOUDY, ~40°F	0.0	Isobutylene	100	101	NONE	DVS
~~3/10/03~~ 3/10/04	1252	SUNNY, ~42°F	0.0	Isobutylene	100	101	NONE	DVS
3/11/04	1100	PT CLOUDY ~48°F	0.0	Isobutylene	100	101	None	DVS
3/12/04	1030	PT CLOUDY ~30°F	0.0	Isobutylene	100	101	None	DVS
3/15/04	0850	SUNNY ~30°F	0.0	Isobutylene	100	101	None	DVS
3/16/04	0830	SNOW FLURRIES ~30°F	0.0	Isobutylene	100	101	None	DVS
3/17/04	1220	SNOW FLURRIES ~30°F	0.0	Isobutylene	100	101	None	DVS
3/18/04	1135	DRIZZLE RAIN ~32°F	0.0	Isobutylene	100	100	None	DVS
3/19/04	0930	PT CLOUDY ~38°F	0.0	Isobutylene	100	101	None	DVS
3/20/04	1330	SUNNY ~61°F	0.0	Isobutylene	100	100	None	DVS
3/21/04	1445	SUNNY ~32°F	0.0	Isobutylene	100	100	None	DVS
3/22/04	1100	SUNNY ~32°F	0.0	Isobutylene	100	100	None	DVS
3/23/04	1005	SUNNY ~40°F	0.0	Isobutylene	100	100	None	DVS
3/24/04	1045	~~CLOUDY~~ 42°F	0.0	Isobutylene	100	102	None	ALH

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MINIRAE 2000 Sampler: DIANE SAFTIC/AMY HANRAHAN/ADAM CHEN
Serial Number: U012 33X (FIELD ENVIRONMENTAL)

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
3/25/04	0750	Cloudy 58°F	0.0	Isobutylene	100	101	None	ALH
3/26/04	0920	Pt. Sunny 61°F	0.0	Isobutylene	100	102	None	ALH
3/27/04	0720	Cloudy 42°F	0.0	Isobutylene	100	101	None	ALH
3/28/04	0730	Pt cloudy 56°F	0.0	Isobutylene	100	100	None	ALH
3/29/04	1050	Pt ~~cloudy~~ sunny 60°F	0.0	Isobutylene	100	101	None	DUS
3/30/04	0800	Pt Cloudy, 49°F	0.0	Isobutylene	100	101	None	DUS
3/31/04	1115	Mostly Cloudy 38°F	0.0	Isobutylene	100	101	None	DUS
4/1/04	0920	Pt. Cloudy, 40°F	0.0	Isobutylene	100	100	None	DUS
4/2/04	0940	Sunny, 48°F	0.0	Isobutylene	100	101	None	DUS
4/3/04	1030	Sunny ~50°F	0.0	Isobutylene	100	101	None	DUS
4/4/04	1515	Sunny, 41°F	0.0	Isobutylene	100	100	None	DUS
4/5/04	1111	Sunny ~46°F	0.0	Isobutylene	100	101	None	DUS
4/6/04	1000	Mostly Cloudy, ~57°F	0.0	Isobutylene	100	100	None	DUS
4/7/04	1440	Sunny ~54°F	0.0	Isobutylene	100	101	None	DUS
4/8/04	940	Mostly Cloudy 54°F	0.0	Isobutylene	100	101	None	AC

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MINI RAE 2000 Sampler: DIANE SAFTIC / ADAM CHEN
Serial Number: 601233X (FIELD ENVIRONMENTAL)

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
4/9/04	1150	Sunny 60°F	0	Isobutylene	100	101	None	DC
4/10/04	9:25	Cloudy 40°F	0	Isobutylene	100	101	"	DC
4/11/04	830	Sunny 40°F	0	Isobutylene	100	101	"	DC
4/12/04	1145	Sunny, 45°F	0	Isobutylene	100	100	None	DUS
4/13/04	0730	Cloudy, 40°F	0	Isobutylene	100	100	None	DUS
4/14/04	1010	Sunny, 61°F	0	Isobutylene	100	101	None	DUS
4/15/04	1020	Sunny, 68°F	0	Isobutylene	100	100	None	DUS
4/16/04	1100	Sunny, 72°F	0	Isobutylene	100	101	None	DUS
4/17/04	1310	Sunny, 71°F	0	Isobutylene	100	101	None	DUS
4/18/04	1420	Sunny, 82°F	0	Isobutylene	100	101	None	DUS
4/19/04	1105	Sunny, 72°F	0	Isobutylene	100	101	None	Apc
4/20/04	1215	Cloudy 65°F	0	Isobutylene	100	99.5	"	Apc
4/20/04	1230	Sunny 65°F	0	Isobutylene	100	99.6	"	Apc
4/21/04	1100	Mostly Cloudy 52°F	0	Isobutylene	100	101	None	DUS
4/23/04	1225	Cloudy 62°F	0	Isobutylene	100	101	"	Apc

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MINI RAE 2000 Sampler: DIANE SAFTIC / ADAM CHEN / IVAN WILLAMSON
Serial Number: U01233 X (FIELD ENVIRONMENTAL)

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
4/24/04	0730	Sunny	0	Isobutylene	100	101	None	APC
4/25/04	0800	Cloudy	0	Isobutylene	100	101	"	APC
4/26/04	1205	Sunny	0	Isobutylene	100	100	"	IGW
4/27/04	1315	Sunny	0	Isobutylene	100	101	"	IGW
* 4/28/04	0920	SUNNY ~64°F	0	Isobutylene	100	100	None	DUS
** 4/29/04	0830	SUNNY, ~70°F	0	Isobutylene	100	101	None	DUS
4/30/04	1015	CLOUDY, ~45°F	0	Isobutylene	100	101	None	DUS
5/1/04	1415	CLOUDY RAIN ~45°F	0	Isobutylene	100	100	None	DUS
5/2/04	1350	SUNNY ~46°F	0	Isobutylene	100	101	None	DUS
5/3/04	1115	SUNNY ~50°F	0	Isobutylene	100	100	None	DUS
5/4/04	1335	Sunny ~65°F	0	Isobutylene	100	101	None	APC
5/5/04	1215	Sunny ~60°F	0	Isobutylene	100	100	"	APC
5/6/04	958	Sunny ~51°F	0	Isobutylene	100	101	"	APC
5/7/04	0750	Cloudy 55°F	0	Isobutylene	100	100	"	APC
** 5/8/04	0835	cloudy 55°F	0	Isobutylene	100	101	"	APC

** REPLACE MINI RAE 2000 WITH ANOTHER FROM FIELD ENVIRONMENTAL

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MiniRAE 2000 Sampler: Adam Chen / Diane Saftic / Dona Gallas
Serial Number: U00018X

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
5/9/04	0725	Sunny 62°F	0	Isobutylene	100	101	None	APC
5/10/04	0715	Sunny 68°F	0	Isobutylene	100	101	None	APC
5/11/04	1100	Mostly Cloudy, ~70°F	0	Isobutylene	100	101	None	DCS
5/12/04	0900	Mostly Cloudy, ~80°F	0	Isobutylene	100	101	None	DCS/LG
~~** 5/13/04~~	~~0900~~	~~Mostly Cloudy, ~70°F~~	~~0~~	~~Isobutylene~~	~~100~~	~~100~~	~~None~~	~~DCS~~
5/13/04	0900	Mostly Cloudy, ~70°F	0	Isobutylene	100	101	None	DCS
5/14/04	1245	Rain, ~60°F	0	Isobutylene	100	101	None	DCS
~~5/14/04~~ 5/15/04	1045	Sunny ~55°F	0	Isobutylene	100	101	None	DCS
5/16/04	1200	Sunny ~70°F	0	Isobutylene	100	101	None	DCS
5/17/04	1100	Cloudy, 75°F	0	Isobutylene	100	101	None	IG
5/18/04	1045	Cloudy, 50°F	0	Isobutylene	100	101	None	IG
5/19/04	915	Cloudy, 60°	0	Isobutylene	100	101	None	IG
5/20/04	0930	Cloudy 71°F	0	Isobutylene	100	101	None	DCS
5/21/04	1105	Cloudy, 65°F	0	Isobutylene	100	100	"	APC
5/22/04	0920	Sunny, 80°	0	Isobutylene	100	102	None	IG

~~** MiniRAE 2000 used from BMCD. Model #: PGM-7600 110-004278 DCS~~

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MINIRAE 2000 Sampler: ADAM CHEN / DIANE SAFTIC / ILONA GALLAS
Serial Number: U000188X

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
5/25/04	1010	SUNNY, 60°F	0	Isobutylene	100	101	None	DUS
5/26/04	1145	CLOUDY, 58°F	0	Isobutylene	100	101	None	DUS
5/27/04	1155	CLOUDY, 65°F	0	Isobutylene	100	101	None	DUS
5/28/04	1400	SUNNY, 55°F	0	Isobutylene	100	101	None	DUS
5/29/04	1000	RAIN, 55°F	0	Isobutylene	100	100	None	DUS
5/30/04	0930	CLOUDY, 65°F	0	Isobutylene	100	101	None	DUS
5/31/04	1015	PCLOUDY, 71°F	0	Isobutylene	100	101	None	DUS
6/1/04	0855	Sunny 62°F	0	Isobutylene	100	101	"	APC
6/2/04	1045	Sunny 68°F	0	Isobutylene	100	101	"	APC
6/3/04	0845	SUNNY 55°F	0	Isobutylene	100	101	None	DUS
6/4/04	0955	Sunny 62°F	0	Isobutylene	100	100	"	APC
6/5/04	0800	Sunny 68°F	0	Isobutylene	100	101	"	APC
6/6/04	0745	cloudy 72°F	0	Isobutylene	100	100	"	APC
6/7/04	1000	Sunny, 80°F	0	Isobutylene	100	101	"	IG
6/8/04	1350	SUNNY 95°F	0	Isobutylene	100	101	None	DUS

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MiniRAE 2000 Sampler: Diane Safir / Ilona Gallas / Adam Chen
Serial Number: U000018X

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
6/9/04	1010	Sunny, 93°F	0	Isobutylene	100	101	None	DCS
6/10/04	1015	Rain/Drizzle, 63°F	0	Isobutylene	100	101	None	DCS
6/11/04	0830	Cloudy, 73°F	0	Isobutylene	100	100	None	DCS
6/12/04	~~10~~ 1300	Cloudy, 75°F	0	Isobutylene	100	100	None	ILG
6/13/04	1430	Cloudy 83°F	0	Isobutylene	100	101	None	DCS
6/14/04	1700	Sunny 83°F	0	Isobutylene	100	101	None	DCS
6/15/04	1000	Pt. Cloudy, 82°F	0	Isobutylene	100	101	None	DCS
6/16/04	1000	Cloudy, 84°F	0	Isobutylene	100	101	None	DCS
6/17/04	0915	Pt. Cloudy 83°F	0	Isobutylene	100	101	None	DCS
6/18/04	1055	Cloudy 85°F	0	Isobutylene	100	100	None	DCS
6/19/04	0715	Sunny 65°F	0	Isobutylene	100	101	"	APC
6/20/04	0750	Sunny 62°F	0	Isobutylene	100	100	"	APC
6/21/04	1020	Cloudy 65°F	0	Isobutylene	100	101	Nisha	APC
6/22/04	1050	Sunny 71°F	0	Isobutylene	100	100	"	APC
6/23/04	1335	Sunny 78°F	0	Isobutylene	100	101	"	APC

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MINI RAE 2000
Serial Number: U000/8X
Sampler: DIANE SAFTIC / LONA GALLAS / ADAM CHEN

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
6/24/04	0900	Pt. Cloudy 68F	0	Isobutylene	100	101	None	DCS
6/25/04	1110	Sunny, 65°F	0	Isobutylene	100	101	None	DCS
6/26/04	1100	Pt Sunny, 75°F	0	Isobutylene	100	100	None	DCS
6/27/04	1200	Sunny, 85°F	0	Isobutylene	100	101	None	ILG
6/28/04	1100	Sunny, 70°F	0	Isobutylene	100	101	None	ILG
6/29/04	1100	Sunny, 80°F	0	Isobutylene	100	101	None	ILG
6/30/04	1100	Sunny, 85°F	0	Isobutylene	100	101	None	ILG
~~7/1/04~~	~~0915~~	~~Sunny, 78°F~~	~~0~~	~~Isobutylene~~	~~100~~	~~101~~	~~None~~	~~DCS~~ Δ
~~6/31/04~~	~~1100~~	~~Sunny, 85°F~~	~~0~~	~~Isobutylene~~	~~100~~	~~100~~ 101	~~None~~	~~DCS for ILG~~ Δ
7/1/04	0915	Sunny, 78°F	0	Isobutylene	100	101	None	DCS
7/2/04	0800	Sunny, ~73°F	0	Isobutylene	100	101	None	DCS
7/3/04	0735	Sunny 70°F	0	Isobutylene	100	100	None	APC
7/4/04	0850	Sunny 68°F	0	Isobutylene	100	101	"	APC
7/5/04	0905	Cloudy 67°F	0	Isobutylene	100	100	"	APC
7/6/04	1200	Sunny 80°F	0	Isobutylene	100	101	None	DCS

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MINIRAE 2000 Sampler: DIANE SAFTIC / ADAM CHEN
Serial Number: U000184 / U01233X*

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
7/7/04	0755	PT. CLOUDY, 73°F	0	Isobutylene	100	101	None	DVS
7/8/04	0800	SUNNY, 74°F	0	Isobutylene	100	101	None	DVS
7/9/04	0930	CLOUDY, 74°F	0	Isobutylene	100	101	None	DVS
7/10/04	1250	SUNNY, 80°F	0	Isobutylene	100	101	None	DVS
7/28/04	0715	CLOUDY, 75°F	0	Isobutylene	100	101	None	DVS
~~7/29/04~~ as				~~Isobutylene~~				DVS
7/30/04	0945	CLOUDY, 67°F	0	Isobutylene	100	100	None	DVS
7/31/04	1300	MOSTLY SUNNY, 84°F	0	Isobutylene	100	101	None	DVS
8/1/04	1415	SUNNY, 90°F	0	Isobutylene	100	101	None	DVS
8/2/04	1030	SUNNY, 85°F	0	Isobutylene	100	101	None	DVS
* 8/3/04	0950	CLOUDY, 94°F	0	Isobutylene	100	101	None	DVS
* 8/4/04	1120	CLOUDY, 68°F	0	Isobutylene	100	101	None	DVS
* 8/5/04	0920	MOSTLY SUNNY, 68°F	0	Isobutylene	100	100	None	DVS
* 8/6/04	0950	SUNNY 69°F	0	Isobutylene	100	101	None	AHC
* 8/07/04	0730	Sunny 62°F	0	Isobutylene	100	100	"	AHC

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MIN. RAE 2000 Sampler: ADAM CHEN / DIANE SAFTIK
Serial Number: U01233X

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
8/8/04	0820	Sunny 65°F	0	Isobutylene	100	101	None	DPC
8/9/04	0915	Mostly Sunny, 75°F	0	Isobutylene	100	101	None	DCS
8/10/04	1100	Cloudy, 68°F	0	Isobutylene	100	100	None	DCS
8/11/04	1010	Cloudy, 65°F	0	Isobutylene	100	100	None	DCS
8/12/04	0915	Cloudy, 61°F	0	Isobutylene	100	100	None	DCS
8/13/04	1115	Mostly Cloudy, 68°F	0	Isobutylene	100	100	None	DCS
8/14/04	0710	Cloudy, 61°F	0	Isobutylene	100	100	None	DCS
8/15/04	1450	Mostly Cloudy, 72°F	0	Isobutylene	100	100	None	DCS
8/16/04	1750	Cloudy, 75°F	0	Isobutylene	100	100	None	DCS
8/17/04	1140	Cloudy, 75°F	0	Isobutylene	100	100	None	DCS
8/18/04	1000	Cloudy, 75°F	0	Isobutylene	100	100	None	DCS
8/19/04	0900	Cloudy, 65°F	0	Isobutylene	100	100	None	DCS
8/20/04	1030	Cloudy, 69°F	0	Isobutylene	100	100	None	DCS
8/21/04	1250	Mostly Sunny, 74°F	0	Isobutylene	100	100	None	DCS
8/22/04	1050	Sunny, 74°F	0	Isobutylene	100	100	None	DCS

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MINI RAE 2000 Sampler: ADAM CHEN / DIANE SAFTIC
Serial Number: V01233X

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
8/23/04	1920	Cloudy 70°F	0	Isobutylene	100	101	None	APC
8/24/04	2000	Cloudy 70°F	0	Isobutylene	100	100	None	APC
8/25/04	1145	CLOUDY, 75°F	0	Isobutylene	100	100	None	DUS
8/26/04	1015	CLOUDY, 78°F	0	Isobutylene	100	100	None	DUS
8/27/04	0915	CLOUDY, 79°F	0	Isobutylene	100	100	None	DUS
8/28/04	1500	CLOUDY, 70°F	0	Isobutylene	100	100	None	DUS
8/29/04	0825	Cloudy 70°F	0	Isobutylene	100	101	"	APC
8/30/04	0950	Sunny 72°F	0	Isobutylene	100	100	"	APC
8/31/04	1105	Sunny 75°F	0	Isobutylene	100	100	"	APC
9/1/04	1100	CLOUDY, 78°F	0	Isobutylene	100	101	None	DUS
9/2/04	1200	Sunny 85°F	0	Isobutylene	100	100	"	APC
9/3/04	1000	CLOUDY 75°F	0	Isobutylene	100	100	None	DUS
9/4/04	0745	Sunny 72°F	0	Isobutylene	100	100	"	APC
9/5/04	0730	Sunny 70°F	0	Isobutylene	100	101	"	APC
9/6/04	0745	Sunny 70°F	0	Isobutylene	100	100	"	APC

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MINIRAE 2000 X DCS Sampler: ADAM CHEN / DIANE SAFTIC
Serial Number: 601233 X

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
9/7/04	1125	Sunny 78°F	0	Isobutylene	100	100	None	APC
9/8/04	1015	Cloudy 68°F	0	Isobutylene	100	100	None	DCS
9/9/04	1045	Mostly Cloud 71°F	0	Isobutylene	100	100	None	DCS
9/10/04	1015	Sunny, 75°F	0	Isobutylene	100	100	None	DCS
9/11/04	0805	Sunny 70°F	0	Isobutylene	100	101	"	APC
9/12/04	0735	Sunny 70°F	0	Isobutylene	100	100	"	APC
9/13/04	1305	Sunny 82°F	0	Isobutylene	100	100	"	APC
9/14/04	0915	Sunny 80°F	0	Isobutylene	100	101	"	APC
9/15/04	1210	Sunny 85°F	0	Isobutylene	100	100	"	APC
9/16/04	1100	Sunny 72°F	0	Isobutylene	100	100	None	DCS
9/17/04	0945	Sunny 68°F	0	Isobutylene	100	101	"	APC
9/18/04	1230	Sunny, 76°F	0	Isobutylene	100	100	None	DCS
9/19/04	1400	Sunny, 75°F	0	Isobutylene	100	100	None	DCS
9/20/04	1100	Sunny, 72°F	0	Isobutylene	100	100	None	DCS
9/21/04	1130	Sunny, 80°F	0	Isobutylene	100	100	None	DCS

PID
Real-Time Instrument Calibration Log
Hawthorne Ave. Station

Manufacturer: MiniRAE 2000 Sampler: Adam Chen / Diane Saftic
Serial Number: U01233X

Date	Time	Weather	Zero Calibration Check	Standard Gas	Standard Gas Concentration (ppm)	Gas Calibration Concentration (ppm)	Calibration Notes and Comments	Initials
9/22/04	0935	Sunny, 75°F	0	Isobutylene	100	100	None	DUS
9/23/04	1030	Sunny, 81°F	0	Isobutylene	100	100	None	DUS
9/24/04	1030	Sunny, 72°F	0	Isobutylene	100	100	None	DUS
9/25/04	1340	Sunny, 63°F	0	Isobutylene	100	100	None	DUS
9/26/04	1315	Sunny, 70°F	0	Isobutylene	100	100	None	DUS
9/27/04	1700	Sunny, 72°F	0	Isobutylene	100	100	None	DUS
9/28/04	1145	Cloudy, 68°F	0	Isobutylene	100	100	None	DUS
9/29/04	1215	Mostly Sunny, 60°F	0	Isobutylene	100	100	None	DUS
9/30/04	1240	Sunny, 69°F	0	Isobutylene	100	100	None	DUS
10/1/04	1030	Cloudy, 65°F	0	Isobutylene	100	100	None	DUS
10/2/04	1050	Sunny, 55°F	0	Isobutylene	100	100	None	DUS
10/15/04	0820	Cloudy, 47°F	0	Isobutylene	100	100	None	DUS
				Isobutylene				
				Isobutylene				
				Isobutylene				

SVE SYSTEM OPERATION RECORDS
WITH REAL-TIME AMBIENT AIR MONITORING DATA

Soil Vapor Extraction System Operation Record - WEEK 1
Hawthorne Regulator Station

Parameter	Measurements/Readings					
Date	3/15/2004	3/16/2004	3/17/2004	3/18/2004	3/19/2004	3/20/2004
Time	0915	0840	1220	1144	0945	1340
Sampled by:	DUS/AC	DUS	DUS	DUS/AC	DUS	DUS
Vapor Extraction Flow Rate (cfm)						
Total (not to exceed 100 cfm)	50	40	50	75	85	85
VOC Concetrations (ppm)						
Prior to GAC Unit - Outside Trailer	2850	2950	1250	2460	580	4358
Prior to GAC Unit - Inside Trailer	50.5	35.8	30.4	48.6	12.5	4358
Post GAC Unit	0.2	0.1	0.1	0.0	0.0	0.2
SVE Discharge Temp (degrees F)						
After GAC Unit	45	45	50	48	56	65
GAC Indicator						
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)						
Approximate Total in Tank	0 (Initial Start)	1090	2090	2860	3920 *	1060
Total to Date	3340	4430	5430	6200	7260	8320
Pressure Reading (" H_20)						
Prior to GAC Unit	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0
SVE Inlet (in Hg)	15	15	15	15	11.5	15
Outside Temperature (degrees F)	30	30	30	32	38	61
Accumulative Hours of Operation	Initial Start	23.5	51.5	75	97	125

Note:
(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 2
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	3/21/2004	3/22/2004	3/23/2004	3/24/2004	3/25/2004	3/26/2004	3/27/2004
Time	1450	1105	1015	1100	0755	0930	0725
Sampled by:	DUS	DUS	DUS	ALH	DUS/ALH	ALH	ALH
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	85	80	85	80	95	90	90
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	4595	1470	450	305	334	298	1128
Prior to GAC Unit - Inside Trailer	850	60.5	75.2	33.4	37.6	38.5	53.3
Post GAC Unit	0.0	0.1	0.2	0.9	0.0	0.2	0.1
SVE Discharge Temp (degrees F)							
After GAC Unit	50	54	60	54	64	60	56
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Brown	Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	1950	2660	3440	4220	5080*	890	1900
Total to Date	9210	9920	10700	11480	12340	13340	14350
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	13.5	11.5	12.0	13.5	13.0	14.5	12
Outside Temperature (degrees F)	32	31	40	42	61	61	42
Accumulative Hours of Operation	150	170	193	218	238	263	285

Note:
(1) * - Pick-up by North Branch Environmental. Totalizer reading after clean-out was 12450.

Soil Vapor Extraction System Operation Record - WEEK 3
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	3/28/2004	3/29/2004	3/30/2004	3/31/2004	4/1/2004	4/2/2004	4/3/2004
Time	0735	1100	0815	1125	0930	0945	1040
Sampled by:	ALH	DUS	DUS	DUS	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	90	80	85	80	80	80	90
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	3845	50.2	48.6	142	135	62.9	49.2
Prior to GAC Unit - Inside Trailer	568	6.7	9.2	5.0	4.9	13.6	7.1
Post GAC Unit	0.3	0.3	0.1	0.2	0.1	0.1	0.2
SVE Discharge Temp (degrees F)							
After GAC Unit	62	70	70	58	58	60	72
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	2920	4250	5280*	1220	2180	3120*	940
Total to Date	15370	16700	17730	18950	19910	20920	21860
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	12.5	13.5	11.5	10.5	10.5	10.0	12.0
Outside Temperature (degrees F)	56	60	49	38	40	48	50
Accumulative Hours of Operation	309	336	357	384	406	430	453

Note:
(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 4
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	4/4/2004	4/5/2004	4/6/2004	4/7/2004	4/8/2004	4/9/2004	4/10/2004
Time	1525	1125	1010	1445	0953	1053	0830
Sampled by:	DUS	DUS	DUS/APC	DUS	APC	APC	APC
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	85	85	85	85	85	85	85
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	9999	38.6	6.9	8.9	307	407	6894
Prior to GAC Unit - Inside Trailer	2752	6.4	5.6	5.5	104**	105	1610
Post GAC Unit	0.1	0.2	0.1	0.1	0.1	0.1	181
SVE Discharge Temp (degrees F)							
After GAC Unit	58	60	65	60	60	65	60
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	1940	2650	3400*	410	1280	1620	2540
Total to Date	22860	23570	24320	24730	25600	25940***	26860
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	11.5	11.0	10.5	9.5	10	11	12
Outside Temperature (degrees F)	41	46	57	54	54	55	40
Accumulative Hours of Operation	482	502	525	543	562	586	608

Note:
(1) * - Pick-up by North Branch Environmental. Totalizer reading after clean-out was 12450.
(2) ** - SVE-2 well off (closed).
(3) *** - SVE System shut off automatically due to high water level.

Soil Vapor Extraction System Operation Record - WEEK 5
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	4/11/2004	4/12/2004	4/13/2004	4/14/2004	4/15/2004	4/16/2004	4/17/2004
Time	0755	1155	0745	1020	1120	1110	1315
Sampled by:	APC	DUS	DUS	DUS	APC/DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	85	85	85	85	85	85	85
VOC Concetrations (ppm)							
.	159	3330	1250	30.4	9.5	7.8	8.2
Prior to GAC Unit - Inside Trailer	9.0	6.7	5.1	8.0	6.8	6.8	5.8
Post GAC Unit	0.2	0.2	0.1	0.2	0.2	3.6	0.2
SVE Discharge Temp (degrees F)							
After GAC Unit	50	60	52	58	72	72	80
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	3330	4230	4830*	770	940	1750	2500
Total to Date	27650	28550	29150	29920	30090	30900	31650
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	8.5	9.5	8.5	10.5	12.0	14.0	12.0
Outside Temperature (degrees F)	25	45	40	61	68	72	71
Accumulative Hours of Operation	632	660	680	706	708**	732	758

Notes:
(1) * - Pick-up by North Branch Environmental. Totalizer reading after clean-out was 12450.
(2) ** - SVE system not running for approximately 22 hours.

Soil Vapor Extraction System Operation Record - WEEK 6
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	4/18/2004	4/19/2004	4/20/2004	4/21/2004	4/22/2004	4/23/2004	4/24/2004
Time	1430	1035	1245	1250	1105	1235	0745
Sampled by:	DUS	APC	APC	APC	APC/DUS	APC	APC
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	85	85	70	87	85	87	87
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	12.8	13.6	1.2	60.7	380	145	502
Prior to GAC Unit - Inside Trailer	10.8	10.9	1.0	58.7	408	133	498
Post GAC Unit	3.2	4.6	0.3	4.1	0.3	0.2	0.9
SVE Discharge Temp (degrees F)							
After GAC Unit	90	80	71	70	64	70	52
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	3220	3800	4020	4840	5450*	820	1360
Total to Date	32370	32950	33170	33990	34600	35420	35960
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	14.5	13	21	13	11	12	12
Outside Temperature (degrees F)	82	76	65	64	52	62	52
Accumulative Hours of Operation	783	807	831	855	879	903	927

Note:
(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 7
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	4/25/2004	4/26/2004	4/27/2004	4/28/2004	4/29/2004	4/30/2004	5/1/2004
Time	0825	1201	1350	0930	0845	1025	1430
Sampled by:	APC	APC	IGW/APC	DUS	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	87	87	87	85	85	85	85
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	498	1200	908	14.0	19.5	3250	13.9
Prior to GAC Unit - Inside Trailer	503	993	197	13.8	13.7	452	10.5
Post GAC Unit	0.9	17	2.4	0.4	3.4	0.2	0.2
SVE Discharge Temp (degrees F)							
After GAC Unit	60	70	58	68	70	60	52
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	2050	2880	3620	4300*	680	1400	2200
Total to Date	36650	37480	38220	38900	39580	40300	41100
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	11	11.5	11	11	13.0	12.5	10.0
Outside Temperature (degrees F)	55	59	57	64	70	45	45
Accumulative Hours of Operation	951	975	999	1021	1045	1071	1097

Note:
(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 8
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	5/2/2004	5/3/2004	5/4/2004	5/5/2004	5/6/2004**	5/7/2004	5/8/2004
Time	1355	1130	1318	0950	1000	2005	0835
Sampled by:	DUS	DUS	APC	APC	APC/DUS	APC	APC
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	85	85	75	85	85	70	65
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	105	550	1389.4	69.5	7.8	1134	392
Prior to GAC Unit - Inside Trailer	16.2	70.3	1357.2	96.7	2.1	1100	698
Post GAC Unit	0.2	0.2	92.4	358	0.0	0.2	0.2
SVE Discharge Temp (degrees F)							
After GAC Unit	60	68	75	70	80	60	70
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Brown	Brown	Brown	Brown	Brown	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	2840	3400	4050	4560*	550	790	2440
Total to Date	41740	42300	42950	43460	44010	44250	45900
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	10.5	10.5	10.5	7.0	9.5	15	20
Outside Temperature (degrees F)	46	50	75	68	72	50	55
Accumulative Hours of Operation	1120	1142	1168	1192	1216	1740	1764

Notes:
(1) * - Pick-up by North Branch Environmental.
(2) ** - Replaced GAC in drums.

Soil Vapor Extraction System Operation Record - WEEK 9
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	5/9/2004	5/10/2004	5/11/2004	5/12/2004	5/13/2004	5/14/2004	5/15/2004
Time	0735	0615	1110	0920	0910	1250	1055
Sampled by:	APC	APC	DUS	DUS/ILG	DUS	DUS/ILG	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	80	85	85	80	85	90	80
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	9999	151	62.3	25.9	715	9999	6898
Prior to GAC Unit - Inside Trailer	9999	159	51.9	32.9	729	9999	1034
Post GAC Unit	0.5	0.9	32.6	71.4	23.8	0.2	0.8
SVE Discharge Temp (degrees F)							
After GAC Unit	65	60	85	85	80	60	70
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple/Brown	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	3480	3830	4170	5090*	630	980	2100
Total to Date	46940	47290	47630	48550	49180	49530	50650
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	17	13	13.5	17.5	15	11.5	15
Outside Temperature (degrees F)	57	68	70	80	70	55	55
Accumulative Hours of Operation	1788	1800	1829	1851	1875	1902	1924

Notes:
(1) * - Pick-up by North Branch Environmental. Totalizer Reading after clean out was 12450.
The low level switch inside the trailer was malfunctioning, measuring mixed air and water levels.
Therefore, the totalizer reading was higher than the actual amount collected in the tank.

Soil Vapor Extraction System Operation Record - WEEK 10
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	5/16/2004	5/17/2004	5/18/2004	5/19/2004	5/20/2004	5/21/2004	5/22/2004
Time	1215	1100	1045	1240	0940	1112	0920
Sampled by:	DUS	ILG	ILG	ILG	DUS	APC	ILG
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	90	90	75	75	80	85	65
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	9999	9999	4.3	5.8	38.6	1254	9999
Prior to GAC Unit - Inside Trailer	8799	9999	2.2	5.3	31.2	1198	9999
Post GAC Unit	45.9	49.8	0.0	0.0	10.8	8.5	623
SVE Discharge Temp (degrees F)							
After GAC Unit	80	80	60	75	80	60	80
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	3060	3520	4790	5190*	800	1700	3420
Total to Date	51610	52070	53330	53730	54530	55430	57150
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	15	12	15.5	14	15	13	21.5
Outside Temperature (degrees F)	70	75	55	60	70	65	80
Accumulative Hours of Operation	1949	1972	1996	2022	2043	2067	2089

Notes:
(1) * - Pick-up by North Branch Environmental. Approximately 5,400 gallons of water were collected.
Volume listed on manifest is higher than volume based on totalizer reading.

Soil Vapor Extraction System Operation Record - WEEK 11
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	5/23/2004**	5/24/2004**	5/25/2004***	5/26/2004	5/27/2004	5/28/2004	5/29/2004
Time	1030	--	1115	1200	1200	1415	1015
Sampled by:	ILG	--	DUS	DUS	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	--	--	80	80	80	80	80
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	--	--	250	9999	821	3860	2572
Prior to GAC Unit - Inside Trailer	--	--	172	9999	638	289	1831
Post GAC Unit	--	--	0.1	0.7	7.1	1.0	0.2
SVE Discharge Temp (degrees F)							
After GAC Unit	--	--	70	70	85	75	65
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	--	--	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	5180	5180	120*	1440	2370	3260*	640
Total to Date	58910	58910	59030	60230	61160	62050	62690
Pressure Reading (" H_20)							
Prior to GAC Unit	--	--	0	0	0	0	0
Post GAC Unit	--	--	0	0	0	0	0
SVE Inlet (in Hg)	--	--	13.5	12	15	12	11.5
Outside Temperature (degrees F)	--	--	60	58	68	55	55
Accumulative Hours of Operation	2099	2099	2099	2124	2148	2174	2194

Notes:
(1) * - Pick-up by North Branch Environmental.
(2) ** SVE system not running due to excessive precipitation. A truck was not available to empty the 6,900-gallon tank until 5/25/04 due to demand from rain events.
(3) *** Replaced GAC in drums and GAC indicator.
(4) -- Not recorded.

Soil Vapor Extraction System Operation Record - WEEK 12
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	5/30/2004	5/31/2004	6/1/2004	6/2/2004	6/3/2004	6/4/2004	6/5/2004
Time	0950	1030	0855	1025	0900	0935	0645
Sampled by:	DUS	DUS	APC	APC	DUS	APC	APC
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	80	80	80	80	80	80	90
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	5678	9999	9999	6800	6989	61	6852
Prior to GAC Unit - Inside Trailer	4121	9999	9999	6955	3459	65	6852
Post GAC Unit	20.9	32.5	29.9	173	2.9	2.0	21.0
SVE Discharge Temp (degrees F)							
After GAC Unit	75	80	70	70	65	62	62
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	1370	2710	3830*	1000	1760	2550*	120
Total to Date	63420	64760	65880	66880	67640	68430	68550
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	13.0	17.0	14.0	16	12.5	12.5	7
Outside Temperature (degrees F)	65	71	65	67	55	60	70
Accumulative Hours of Operation	2217	2241	2245	2269	2292	2316	2340

Notes:
(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 13
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	6/6/2004	6/7/2004	6/8/2004	6/9/2004	6/10/2004	6/11/2004	6/12/2004
Time	0735	1000	1400	1020	1100	1000	1130
Sampled by:	APC	ILG	DUS	DUS/APC	DUS	DUS	ILG
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	90	94	90	90	90	90	90
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	1247	2587	1562	35.4	9999	420	9999
Prior to GAC Unit - Inside Trailer	183	9999	1021	35.2	1946	150	9999
Post GAC Unit	10.5	145	45.9	32.9	1.4	6.9	47.8
SVE Discharge Temp (degrees F)							
After GAC Unit	68	90	100	100	70	80	80
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	450	870	1210	1360	2180	2960*	1090
Total to Date	68880	69300	69640	69790	70610	71390	72480
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	10	15	15.5	15.0	10	13	16
Outside Temperature (degrees F)	72	80	93	93	63	73	75
Accumulative Hours of Operation	2368	2395	2423	2443	2467	2490	2515

Notes:
(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 14
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	6/13/04	6/14/04	6/15/04	6/16/04**	6/17/04	6/18/04	6/19/04
Time	1435	1730	1015	1015	0930	1100	0705
Sampled by:	DUS	DUS	DUS	DUS/APC	DUS	DUS	APC
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	90	95	95	95	95	95	90
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	9999	152	1999	253	350	3420	9990
Prior to GAC Unit - Inside Trailer	9999	50.9	1596	198	212	1256	9999
Post GAC Unit	29.7	50.9	180	3.5	42.8	41.3	45.0
SVE Discharge Temp (degrees F)							
After GAC Unit	85	90	86	86	90	90	85
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	2060	2910	3400*	710	1070	1370	1590
Total to Date	73450	74300	74790	75500	75860	76160	76380
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	14.0	17.5	16	13	9.5	9.5	7
Outside Temperature (degrees F)	83	83	82	84	83	85	65
Accumulative Hours of Operation	2542	2569	2586	2610	2633	2658	2682

Notes:

(1) * - Pick-up by North Branch Environmental.

(2) ** - Replaced GAC drums and GAC indicator on 6/16/04.

Soil Vapor Extraction System Operation Record - WEEK 15
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	6/20/2004	6/21/2004	6/22/2004	6/23/2004	6/24/2004	6/25/2004	6/26/2004
Time	0741	1015	1115	1335	0930	1120	1105
Sampled by:	APC	APC	APC	APC	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	90	85	85	85	85	85	85
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	5898	5489	2098	495	210	78.2	50.1
Prior to GAC Unit - Inside Trailer	5963	5860	2156	513	145	40.8	40.3
Post GAC Unit	35.7	41.5	31.5	31.0	1.3	9.3	1.1
SVE Discharge Temp (degrees F)							
After GAC Unit	70	72	80	89	72	82	85
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	1840	2630	2910	3690	3900*	240	560
Total to Date	76630	77420	77700	78550	78760	79000	79320
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	7	12	8	14	8.5	8	10.5
Outside Temperature (degrees F)	62	65	71	78	68	65	75
Accumulative Hours of Operation	2706	2730	2754	2778	2798	2824	2848

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 16
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	6/27/2004	6/28/2004	6/29/2004	6/30/2004	7/1/2004	7/2/2004	7/3/2004
Time	1200	1100	1100	1300	0925	0830	0815
Sampled by:	ILG	ILG	ILG	ILG	DUS	DUS	APC
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	95	95	95	95	90	80	90
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	9999	9999	450	565	78.9	2168	489
Prior to GAC Unit - Inside Trailer	9999	9999	245	295	51.3	1444	480
Post GAC Unit	176	193	185	163	3.8	10.9	42.5
SVE Discharge Temp (degrees F)							
After GAC Unit	90	80	90	90	80	80	80
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	840	970	1120	1160	1780	1880*	220
Total to Date	79600	79730	79880	79920	80540	80640	80860
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	11	9.5	10.5	10	9.5	7	9.5
Outside Temperature (degrees F)	85	70	80	85	78	73	72
Accumulative Hours of Operation	2873	2895	2919	2943	2963	2986	3100

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 17
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	7/4/2004	7/5/2004	7/6/2004	7/7/2004	7/8/2004	7/9/2004	7/10/2004
Time	0905	0825	1215	1000	0830	0940	1250
Sampled by:	APC	APC	DUS	DUS	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	85	80	85	70	70	70	70
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	2659	3657	89.9	9999	9999	9999	9999
Prior to GAC Unit - Inside Trailer	2500	3804	15.6	9999	9999	9999	9999
Post GAC Unit	29.5	39.2	10.1	28.2	21.5	33.4	89.2
SVE Discharge Temp (degrees F)							
After GAC Unit	80	80	92	80	75	80	95
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	780	2280	3420	3800	4160*	380	750
Total to Date	81420	82920	84060	84440	84800	85180	85550
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	14.0	15.0	11.5	19	16	17	18
Outside Temperature (degrees F)	68	69	80	73	74	74	80
Accumulative Hours of Operation	3124	3168	3196	3218	3240	3265	3292

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 18
Hawthorne Regulator Station

Parameter	Measurements/Readings								
Date	7/30/2004	7/31/2004	8/1/2004	8/2/2004	8/3/2004	8/4/2004	8/5/2004	8/6/2004	8/7/2004
Time	1100	1315	1420	1150	1045	1200	0940	1030	0725
Sampled by:	DUS	DUS	DUS	DUS	DUS	DUS	DUS	APC	APC
Vapor Extraction Flow Rate (cfm)									
Total (not to exceed 100 cfm)	80	85	90	85	80	80	80	80	80
VOC Concetrations (ppm)									
Prior to GAC Unit - Outside Trailer	9999	9999	9999	9999	5490	3280	1520	1689	1895
Prior to GAC Unit - Inside Trailer	9999	9999	9999	9999	4925	2525	155	1659	1805
Post GAC Unit	36.2	40.9	34.1	21.9	23.8	19.2	2.1	32.1	35.1
SVE Discharge Temp (degrees F)									
After GAC Unit	80	90	95	95	95	75	75	80	70
GAC Indicator									
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)									
Approximate Total in Tank	880	1980	2780	2970	3030*	620	1370	2290	2970
Total to Date	85680	86780	87580	87770	87830	88450	89200	90120	90800
Pressure Reading (" H_20)									
Prior to GAC Unit	0	0	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0	0	0
SVE Inlet (in Hg)	15	15	16	16	14	15	15	15	15
Outside Temperature (degrees F)	67	84	90	85	94	68	68	69	62
Accumulative Hours of Operation	3294	3320	3332	3344	3368	3392	3416	3440	3464

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 19
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	8/8/2004	8/9/2004	8/10/2004	8/11/2004	8/12/2004	8/13/2004	8/14/2004
Time	0825	0930	1120	1015	0930	1130	0720
Sampled by:	APC	DUS	DUS	DUS	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	80	80	90	90	90	90	90
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	1624	2348	1534	1242	80.3	482	72.1
Prior to GAC Unit - Inside Trailer	1876	1985	368	278	10.1	129	50.3
Post GAC Unit	35.0	20.9	12.8	3.6	3.2	31.1	4.8
SVE Discharge Temp (degrees F)							
After GAC Unit	75	80	75	70	70	80	70
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	3730	4390*	340	560	780	1540	2030
Total to Date	91560	92220	92560	92780	93000	93760	94250
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	14	15	8.5	8	7.5	13	11.5
Outside Temperature (degrees F)	67	75	68	65	61	68	61
Accumulative Hours of Operation	3488	3513	3539	3563	3587	3613	3633

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 20
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	8/15/2004	8/16/2004	8/17/2004	8/18/2004	8/19/2004	8/20/2004	8/21/2004
Time	1500	1805	1150	1010	0915	1040	1300
Sampled by:	DUS	DUS	DUS	DUS	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	85	85	90	90	90	90	90
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	1262	625	320	1369	562	439	324
Prior to GAC Unit - Inside Trailer	854	108	57.2	1065	325	292	126
Post GAC Unit	20.2	16.7	17.2	15.4	26.5	25.5	30.2
SVE Discharge Temp (degrees F)							
After GAC Unit	84	80	85	85	75	75	85
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Purple
Liquid Volume (Gallons)							
Approximate Total in Tank	2720	3260	3600	4020	4470*	480	990
Total to Date	94940	95480	95820	96240	96690	97170	97680
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	13	13	13.5	13.5	12	12	13
Outside Temperature (degrees F)	72	75	75	75	65	69	74
Accumulative Hours of Operation	3665	3692	3710	3732	3755	3780	3806

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 21
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	8/22/2004	8/23/2004	8/24/2004	8/25/2004	8/26/2004	8/27/2004	8/28/2004
Time	1100	1935	2005	1200	1030	0930	1515
Sampled by:	DUS	APC	APC	DUS	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	90	90	80	85	80	80	25
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	521	24.0	404	2963	1562	1326	432
Prior to GAC Unit - Inside Trailer	342	24.8	456	2704	1383	1103	256
Post GAC Unit	21.3	6.1	11.8	30.2	8.4	12.8	8.6
SVE Discharge Temp (degrees F)							
After GAC Unit	85	80	75	85	85	85	70
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple	Purple	Purple	Purple	Purple	Purple	Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	1400	1990	2770	3180	3740	4270*	870
Total to Date	98090	98680	99460	99870	100430	100960	101830
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	13	12	17	17	16.5	17	25
Outside Temperature (degrees F)	74	70	70	79	78	79	70
Accumulative Hours of Operation	3828	3852	3876	3892	3914	3937	3967

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 22
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	8/29/2004**	8/30/2004	8/31/2004	9/1/2004	9/2/2004	9/3/2004	9/4/2004
Time	0845	0945	1120	1115	1215	1015	0800
Sampled by:	APC	APC	APC	DUS	DUS/APC	DUS	APC
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	55	75	75	80	80	85	85
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	229	651	583	1054	3.6	79.2	1067
Prior to GAC Unit - Inside Trailer	256	761	570	963	3.1	50.6	1052
Post GAC Unit	25.6	52	198	40.8	2.4	10.4	20.7
SVE Discharge Temp (degrees F)							
After GAC Unit	60	65	68	90	100	90	85
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Brown/Purple	Purple	Purple	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	1110	1500	1500	1500	5400*	970	1780
Total to Date	102070	102460***	102460***	102460***	70****	1040	1850
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	18	15	15.2	15	15	16	15.5
Outside Temperature (degrees F)	68	72	76	78	85	75	72
Accumulative Hours of Operation	3991	4015	4039	4063	4064	4086	4110

Notes:

(1) * - Pick-up by North Branch Environmental.

(2) ** - Restarted system after the system was down for 1 day due to high vacuum pressure (27"Hg).

(3) *** - Observed that the totalizer was malfunctioning.

(4) **** - Replaced totalizer.

Soil Vapor Extraction System Operation Record - WEEK 23
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	9/5/2004	9/6/2004	9/7/2004	9/8/2004	9/9/2004	9/10/2004	9/11/2004
Time	0745	0805	1135	1030	1100	1025	0845
Sampled by:	APC	APC	APC	DUS	DUS	DUS	APC
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	80	80	80	80	85	85	85
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	672	945	795	236	693	724	352
Prior to GAC Unit - Inside Trailer	640	906	789	152	251	375	350
Post GAC Unit	26.0	33.3	24.5	40.1	22.4	21.3	40.5
SVE Discharge Temp (degrees F)							
After GAC Unit	80	70	78	80	80	85	80
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	2640	3360	4230	4830	680	1300	1880
Total to Date	2710	3430	4300	4900	5580	6200	6780
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	13.5	15	14	13.5	13	13	12
Outside Temperature (degrees F)	72	70	75	68	71	75	72
Accumulative Hours of Operation	4134	4158	4182	4205	4229	4253	4277

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 24
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	9/12/2004	9/13/2004	9/14/2004	9/15/2004	9/16/2004	9/17/2004	9/18/2004
Time	0730	1325	0920	1205	1115	0955	1235
Sampled by:	APC	APC	APC	APC	DUS	APC	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	80	80	90	90	50	80	80
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	1.1	5359	2100	1320	2626	356	592
Prior to GAC Unit - Inside Trailer	1.2	5600	2100	1320	2456	367	535
Post GAC Unit	1.0	39.7	29.0	168	31.2	33.5	31.5
SVE Discharge Temp (degrees F)							
After GAC Unit	75	89	85	82	90	85	90
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	2440	3180	3470	3770*	840	1530	2140
Total to Date	7340	8080	8370	8670	9510	10200	10810
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	15	22	15	16	22.5	18	16
Outside Temperature (degrees F)	72	89	80	85	72	68	76
Accumulative Hours of Operation	4281	4305	4329	4353	4377	4401	4427

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 25
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	9/19/2004	9/20/2004	9/21/2004	9/22/2004	9/23/2004	9/24/2004	9/25/2004
Time	1415	1115	1140	0945	1045	1045	1345
Sampled by:	DUS	DUS	DUS	DUS	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	90	75	70	50	70	75	70
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	153	392	842	1963	931	1232	354
Prior to GAC Unit - Inside Trailer	82.6	367	785	1729	859	1158	296
Post GAC Unit	31.2	30.2	24.6	40.3	30.0	24.2	40.1
SVE Discharge Temp (degrees F)							
After GAC Unit	90	85	95	90	95	90	85
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	2430	3140	3810	4340*	510	910	1600
Total to Date	11100	11810	12480	13010	13520	13920	14610
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	12.5	19	19.5	22	18	18	19.5
Outside Temperature (degrees F)	75	72	80	75	81	72	63
Accumulative Hours of Operation	4453	4474	4498	4520	4545	4569	4596

Notes:

(1) * - Pick-up by North Branch Environmental.

Soil Vapor Extraction System Operation Record - WEEK 26
Hawthorne Regulator Station

Parameter	Measurements/Readings						
Date	9/26/2004	9/27/2004	9/28/2004	9/29/2004	9/30/2004	10/1/2004	10/2/2004
Time	1330	1715	1200	1230	1250	1045	1100
Sampled by:	DUS	DUS	DUS	DUS	DUS	DUS	DUS
Vapor Extraction Flow Rate (cfm)							
Total (not to exceed 100 cfm)	75	80	70	70	60	60	60
VOC Concetrations (ppm)							
Prior to GAC Unit - Outside Trailer	421	134	153	415	810	1002	502
Prior to GAC Unit - Inside Trailer	356	86.2	131	365	750	859	326
Post GAC Unit	31.2	10.5	10.2	15.2	30.1	23.7	2.5
SVE Discharge Temp (degrees F)							
After GAC Unit	85	80	80	82	85	80	65
GAC Indicator							
Drum 1 (Brown/Purple to White/Gray)	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown	Purple/Brown
Liquid Volume (Gallons)							
Approximate Total in Tank	2140	2580	3010	3510	3990*	410	850
Total to Date	15150	15590	16020	16520	17000	17410	17850
Pressure Reading (" H_20)							
Prior to GAC Unit	0	0	0	0	0	0	0
Post GAC Unit	0	0	0	0	0	0	0
SVE Inlet (in Hg)	19	15.5	17.5	17.5	18	18	16.5
Outside Temperature (degrees F)	70	72	68	60	69	65	55
Accumulative Hours of Operation	4620	4648	4667	4691	4715	4737	4761

Notes:

(1) * - Pick-up by North Branch Environmental.

APPENDIX I
SVE AIR MONITORING ANALYTICAL RESULTS
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

DATA VALIDATION MEMORANDUM

BURNS & McDONNELL

Client:	Peoples Gas	Prepared By:	Saba Athif
Site:	Hawthorne Regulator Station	Date:	November 29, 2004
Project #:	29168	Checked By:	Christy Barry
File No.:	I7	Date:	November 30, 2004
Title:	Data Validation of Soil Vapor Extraction Air Samples Collected March 18, 2004 to September 30, 2004.		

PURPOSE

The purpose of this document is to present the evaluation and validation of soil vapor extraction (SVE) air sample analytical results for site-specific hazardous air pollutant (HAP) volatile organic compounds (VOCs) and site-specific HAP semivolatile organic compounds (SVOCs).

VALIDATION CRITERIA

The evaluation and validation consisted of the following:

- Evaluated analytical holding times and sample preservation.
- Evaluated surrogate recoveries.
- Evaluated laboratory blank analyses.
- Evaluated laboratory control samples and laboratory control samples duplicates (LCS/LCSD).
- Evaluated duplicate sample results.
- Reviewed laboratory case narratives.

SAMPLING EFFORT

SVE air sampling at the Peoples Gas Hawthorne Regulator Station (Site) was conducted from March 18, 2004 through September 30, 2004. A total of 52 HAP VOC and 22 HAP SVOC samples were collected and analyzed during the SVE activities.

LABORATORY

Samples collected during SVE activities were analyzed and validated by Pace Analytical Services, Inc. (Pace) of Broken Arrow, Oklahoma and Minneapolis, Minnesota and Severn Trent Laboratories (STL) of Knoxville, Tennessee.

CONCLUSIONS

SVE laboratory data have been reviewed and are acceptable for use with qualifications. Pace and STL performed laboratory validation of sample results from samples sent to their respective laboratories. Each laboratory determined that analytical results were usable. Burns & McDonnell performed further evaluation and validation, determining that the overall quality of the analytical results was good. The following minor analytical quality control problems occurred: poor LCS/LCSD recoveries, poor internal standard recoveries

and poor duplicate results for some HAP VOC samples. In these cases, detected results were qualified estimated "J" and non-detect results were qualified estimated non-detect "UJ."

REFERENCES

The following reference documents were used:

(1) United States Environmental Protection Agency (USEPA), 1986. *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods,* EPA Publication No. SW-846, [Third Edition (September 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIIA (April 1998), Draft IVA (January 1998), and Draft IVB (November 2000)].

(2) USEPA, 1999. Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS), in *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air: Method TO-15*, 2nd ed., January.

SAMPLE INFORMATION

Table 1 presents sample designations and analyses requested. Table 2 presents the methods used to analyze the samples.

HOLDING TIME AND SAMPLE PRESERVATION EVALUATION

The HAP VOC and HAP SVOC methods specify holding times as outlined in Table 3. All samples were analyzed within their respective holding time limits; therefore, no qualification was necessary.

SURROGATE RECOVERY EVALUATION

Surrogates were analyzed for HAP VOCs and HAP SVOCs as specified by the method. In one case, a single SVOC surrogate recovery was outside acceptable limits, however two surrogates must be outside the limits for qualification. All other surrogate recoveries were within acceptable limits; therefore, no qualification was necessary.

LABORATORY BLANK ANALYSIS EVALUATION

Laboratory blanks were prepared and run for HAP VOCs and HAP SVOCs for this sampling event. In a few cases, compounds were detected in the blanks below the quantitation limit and qualified by the laboratory. All other HAP VOC and HAP SVOC laboratory blanks were non-detect; therefore, no qualification was necessary.

LABORATORY CONTROL SAMPLES EVALUATION

Laboratory control samples (LCS) and laboratory control sample duplicate samples (LCSD) were prepared and run for HAP VOCs and HAP SVOCs during this sampling event. The LCS percent recoveries were within the acceptable laboratory limits except for six HAP VOC samples. HAP VOC LCS recoveries for the compound 2-butanone (methyl ethyl ketone) were low in sample HAS-VOC-A-042204 and HAS-VOC-

B-042204; ethylbenzene, m&p-xylene, o-xylene, naphthalene, and total xylenes recoveries were high in samples HAS-VOC-A-042904 and HAS-VOC-B-042904; and 1,1,1-trichloroethane, benzene, o-xylene and toluene recoveries were low in samples HAS-VOC-A-070804 and HAS-VOC-B-070804. When results were low, all detected results were qualified estimated "J" and non-detect results were qualified estimated non-detect "UJ." When results were high, all detected results were qualified estimated "J" and non-detects were not qualified. All other LCS/LCSD recoveries were within acceptable limits; therefore, no qualification was necessary.

DUPLICATE SAMPLE EVALUATION

Duplicate samples were prepared and run for HAP VOCs in some cases during this sampling event. Due to poor results for duplicate sample HAS-VOC-A-082604, detect results were qualified estimated "J" and non-detect results were qualified estimated non-detect "UJ" for all compounds except for chloromethane, toluene and 2-butanone.

LABORATORY CASE NARRATIVES REVIEW

A review of the STL case narratives for samples collected for HAP VOCs and HAP SVOCs indicates that the overall quality of the analytical results was acceptable.

Case narratives from PACE Minneapolis indicated that laboratory internal standards analyses for the compounds ethylbenzene, m&p-xylene, o-xylene, and naphthalene were below the acceptable range during the analysis of HAP VOC samples HAS-VOC-A-042904 and HAS-VOC-B-042904. Results for the analytes were all detect and were qualified estimated "J." Case narratives otherwise indicated that the overall quality of the analytical results was acceptable.

Case narratives from PACE Oklahoma indicated that the overall quality of samples was acceptable. PACE Oklahoma did report sample results that were detected below the reporting limit but above the method detection limit with an estimated "J" qualifier.

No other sample receipt or processing problems were noted by the laboratories.

* * * * *

Table 1 List of Sample Numbers and Analyses	
Sample Number	**Analyses**
HAS-VOC-A-031804	Hazardous Air Pollutant (HAP) Volatile Organic Compounds (VOCs)
HAS-VOC-B-031804	HAP VOCs
HAS-SVOC-A-031804	HAP Semivolatile Organic Compounds (SVOCs)
HAS-SVOC-B-031804	HAP SVOCs
HAS-VOC-A-032504	HAP VOCs
HAS-VOC-B-032504	HAP VOCs
HAS-SVOC-A-032504	HAP SVOCs
HAS-SVOC-B-032504	HAP SVOCs
HAS-VOC-A-040104	HAP VOCs
HAS-VOC-B-040104	HAP VOCs
HAS-SVOC-A-040104	HAP SVOCs
HAS-SVOC-B-040104	HAP SVOCs
HAS-VOC-A-040804	HAP VOCs
HAS-VOC-B-040804	HAP VOCs
HAS-SVOC-A-040804	HAP SVOCs
HAS-SVOC-B-040804	HAP SVOCs

Table 1 (Continued) List of Sample Numbers and Analyses	
Sample Number	**Analyses**
HAS-VOC-A-041504	HAP VOCs
HAS-VOC-B-041504	HAP VOCs
HAS-SVOC-A-041504	HAP SVOCs
HAS-SVOC-B-041504	HAP SVOCs
HAS-VOC-A-042204	HAP VOCs
HAS-VOC-B-042204	HAP VOCs
HAS-SVOC-A-042204	HAP SVOCs
HAS-SVOC-B-042204	HAP SVOCs
HAS-VOC-A-042904	HAP VOCs
HAS-VOC-B-042904	HAP VOCs
HAS-SVOC-A-042904	HAP SVOCs
HAS-SVOC-B-042904	HAP SVOCs
HAS-VOC-A-050604	HAP VOCs
HAS-VOC-B-050604	HAP VOCs
HAS-SVOC-A-050604	HAP SVOCs
HAS-SVOC-B-050604	HAP SVOCs
HAS-VOC-A-051304	HAP VOCs
HAS-VOC-B-051304	HAP VOCs
HAS-SVOC-A-051304	HAP SVOCs

Table 1 (Continued) List of Sample Numbers and Analyses	
Sample Number	**Analyses**
HAS-SVOC-B-051304	HAP SVOCs
HAS-VOC-A-052004	HAP VOCs
HAS-VOC-B-052004	HAP VOCs
HAS-SVOC-A-052004	HAP SVOCs
HAS-SVOC-B-052004	HAP SVOCs
HAS-VOC-A-052704	HAP VOCs
HAS-VOC-B-052704	HAP VOCs
HAS-VOC-A-060304	HAP VOCs
HAS-VOC-B-060304	HAP VOCs
HAS-VOC-A-061004	HAP VOCs
HAS-VOC-B-061004	HAP VOCs
HAS-VOC-A-061704	HAP VOCs
HAS-VOC-B-061704	HAP VOCs
HAS-VOC-A-062404	HAP VOCs
HAS-VOC-B-062404	HAP VOCs
HAS-SVOC-A-062404	HAP SVOCs
HAS-SVOC-B-062404	HAP SVOCs
HAS-VOC-A-070104	HAP VOCs
HAS-VOC-B-070104	HAP VOCs

Table 1 (Continued) List of Sample Numbers and Analyses	
Sample Number	**Analyses**
HAS-VOC-A-070804	HAP VOCs
HAS-VOC-B-070804	HAP VOCs
HAS-VOC-A-080504	HAP VOCs
HAS-VOC-B-080504	HAP VOCs
HAS-VOC-A-081204	HAP VOCs
HAS-VOC-B-081204	HAP VOCs
HAS-VOC-A-081904	HAP VOCs
HAS-VOC-B-081904	HAP VOCs
HAS-VOC-A-082604	HAP VOCs
HAS-VOC-B-082604	HAP VOCs
HAS-VOC-A-090204	HAP VOCs
HAS-VOC-B-090204	HAP VOCs
HAS-VOC-A-090904	HAP VOCs
HAS-VOC-B-090904	HAP VOCs
HAS-VOC-A-091604	HAP VOCs
HAS-VOC-B-091604	HAP VOCs
HAS-VOC-A-092304	HAP VOCs
HAS-VOC-B-092304	HAP VOCs
HAS-VOC-A-093004	HAP VOCs
HAS-VOC-B-093004	HAP VOCs

Table 2 Analytical Methods	
Parameter	**Analytical Method**
HAP VOCs	TO-15[1]
HAP SVOCs	8270C[2]

Notes:
(1) USEPA 1999
(2) USEPA 1986

Table 3 Analytical Holding Times	
Analyses	**Holding Time from Sample Collection**
HAP VOCs	30 days[1]
HAP SVOCs	30 days pre-extraction; 40 days post-extraction[2]

Notes:
(1) USEPA 1999
(2) USEPA 1986

ANALYTICAL RESULTS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1700 West Albany
Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

March 29, 2004

Joan Gonzales
Burns and McDonnell Waste Consultants
2601 W. 22nd Street
Oak Brook, IL 60523

Project: 29168-4.07
SDG: 54054
PACE IDs: 54054.01-54054.04

Dear Ms. Gonzales:

Enclosed please find the Level III report for your samples received in our laboratory on March 19, 2004, for the above captioned project.

Thank you for choosing Pace Analytical Services. If you should have any questions or require further information, please do not hesitate to call.

Sincerely,

Randy Staggs
Project Manager

RS/st

Enclosures

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 WEST ALBANY
City/State/Zip: BROKEN ARROW, OK 74012
Telephone: (918) 251 2858

Document Control No: HAS-003-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth~~ START ~~(in feet)~~ DUS: ~~From~~ DATE	Sample ~~Depth~~ START ~~(in feet)~~ DUS: ~~To~~ TIME	Sample END ~~Collected~~ DUS: Date	Sample END ~~Collected~~ DUS: Time	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs * + NAPHTHALENE	8270/BIS(2-ETHYLHEXYL)PHTHALATE	8270/DIBENZOFURAN				FINAL VACUUM	Remarks
HAS-VOC-A-031804			—	—	3/18/04	1339	3/18/04	1340			X	1	X						0	CANISTER #109
HAS-VOC-B-031804			—	—	3/18/04	1237	3/18/04	1238			X	1	X							#213
HAS-SVOC-A-031804			—	—	3/18/04	1335	3/18/04	1435			X	1		X	X					
HAS-SVOC-B-031804			—	—	3/18/04	1218	3/18/04	1318			X	1		X	X					

Sampler (signature): [signature]

Sampler (signature):

Custody Seal Number: 031804PACE-001 THRU 031804PACE-004

Special Instructions: * USE LIST IN WORK ORDER NUMBER 29168-001. STANDARD TAT!

Relinquished By (signature): 1. [signature] Date/Time: 3/18/04 1000 1600 DUS

Received By (signature): Date/Time:

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt: 3.9

Relinquished By (signature): 2. Date/Time:

Received By (signature): [signature] Date/Time: 3/19/04 10:00

Laboratory Comments:

COOLER RECEIPT / SAMPLE LOG-IN SHEET

COOLER RECEIPT / SAMPLE LOG-IN SHEET (115-ATT2.WB1) / SWL-GA-115 REV 5.0 / GA-115-CRLOGIN-F

Pace Analytical

LAB NAME: PACE ANALYTICAL SERVICES, INC.

PAGE 1 OF 1

RECEIVED BY (PRINT NAME): RANDY STAGGS

RECEIVED BY (SIGNATURE):

LOGGED IN BY (SIGNATURE): Kent Smith

REC'D DATE 03/19/04

TIME REC'D 10:00

LOG-IN DATE 2004-03-19 15:35

PROJECT: 29168-4.07

EPISODE: 54054

SAMPLE DELIVERY GROUP: 54054

Remarks

1. CUSTODY SEAL(S): Present/Absent
   Intact/ Broken
2. CUSTODY SEALS NOS.:
3. CHAIN-OF CUSTODY. Present/Absent
   Sealed In Plastic? Yes/ No
   Taped To Lid? Yes/ No
   Properly Filled Out (Ink, Signed, ETC.)? Yes/ No
4. AIRBILL AirBill/ Sticker Present/Absent
5. AIRBILL NO: 841627956642
6. COOLER CONDITIONS
   Enough Ice? Yes/ No
   Type of Ice?
   Type of Packing?
   RK 3/22/04
7. SAMPLE TAGS Absent
8. SAMPLE CONDITION: Intact/ Present/Broken*/ Leaking
   Bottles Sealed In Separate Plastic Bags? Yes/ No
   Correct Containers Used For Tests Indicated? Yes/ No
   Correct Preservative? Yes/ No
   Sufficient Sample? Yes/ No
   Labels Complete (I.D., Date, Time, Signature, Preservative? Yes/ No
   VOA Samples Without Bubbles? Yes/ No~
9. Does Information on Custody Records, Labels, Tags Agree? Yes/ No*
10. RAD SCREEN WITH GIEGER COUNTER? Yes/ No
11. P.O. Called? Yes/ No

Client Sample #	Sample Fraction @	Assigned LAB#	Cooler I.D.	pH Check	ACID/ BASE LOT#	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC.
HAS-VOC-A-031804		54054.01		N		
HAS-VOC-B-031804		54054.02		N		
HAS-SVOC-A-031804		54054.03		N		
HAS-SVOC-B-031804		54054.04		N		

YS 3/19/04

* Contact PO and attach record of resolution

@ Sample Fractions: B=SV GC/MS, V= VOA GC/MS or GC, P=Pesticide, H=Herbicide, D=Dioxin, A=Air, I=Inorganics, C=Cyanide, M=Metals, R=Radiochemistry

~ Note samples with bubbles under remarks section.

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Pace Analytical Services, Inc.
1700 West Albany
Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

SDG NARRATIVE

March 25, 2004

CLIENT: B&MC-IL

SDG No.: 54054

VOLATILE FRACTION

Two air samples were submitted for Volatile Organic Analysis. The samples were analyzed by GC/MS, following EPA Method TO-15.

No significant problems occurred during the analysis of these samples. Both samples were initially analyzed at a 10X dilution. Sample HAS-VOC-B-031804 was reanalyzed without dilution. Only the undiluted analysis is reported for this sample.

Blanks: No problem.

Surrogates: All surrogate concentrations were within QC recovery limits.

Internal Standards: All internal standard areas were within QC recovery limits.

Laboratory Control Spikes: All spike compounds were within QC recovery limits.

Matrix Spikes: Method TO-15 contain no provisions for matrix spiking, none was performed.

James Whittaker

James G. Whittaker
Specialty Services Coordinator

March 25, 2004

ORGANIC DATA QUALIFIER DEFINITIONS

METHODOLOGY

SM	=	Standard Methods, 19th Edition, 1995
EPA	=	#EPA600 / 4-79-020, March 1985
SW	=	EPA Methodology, "#SW846", Final Update III, June, 1997

GENERAL QUALIFIER FLAGS

B	=	Analyte is detected in blank as well as sample
J	=	Estimated value: concentration is below limit of quantitation
T	=	Trace amount
U	=	Not detected
>	=	Concentration greater than value reported
E	=	Compound exceeds calibration range
D	=	Sample dilution run or surrogates diluted out Sample run at secondary dilution
I	=	Not quantifiable due to matrix interference
*	=	Surrogate outside of QC limits on both original and re-analysis
P	=	Pesticide Aroclor Flag used when the % difference between two GC columns exceeds specified amount. See Case Narrative.

TPH 8015

1	=	Analysis shows miscellaneous peaks, which cannot be identified as any specific pattern. Response factor for nearest eluting hydrocarbon standard was used to calculate concentration.
2	=	Pattern is similar to, but not identical to standard.
3	=	May be a weathered gasoline.

APPENDIX IX SEMIVOLATILES

1	=	Detected as Diphenylamine
2	=	Coelute on GC Column

TCLP SEMIVOLATILES

1	=	1-methyl phenol
2	=	Compounds Co-elute (3 & 4-methylphenol)
3	=	Combination of O, M, & P Cresols

DIOXINS

X	=	EMPC (Estimated Maximum Possible Concentration)
I *	=	EMPC – ether interference

INORGANIC DATA QUALIFIER DEFINITIONS

B	=	The reported values were obtained from a reading that was less than the Practical Quantitation Limit (PQL) but greater than or equal to the Method Detection limit (MDL); if the analyte was analyzed but not detected a 'U' must be entered.
E	=	The reported value is estimated because of the presence of interference. An explanatory note must be included under "Comment" on the Cover Page if the problem applies to all samples or on the specific Form 1 if it is an isolated problem.
M	=	Duplicate injection precision not met.
N	=	Spike recovery not within control limits.
S	=	The reported value was determined by the Method of Standard Additions (MSA).
W	=	Post-Digestion spike for FGAA analysis is out of control limits (85-155%) while sample absorbance is less than 50% of spike absorbance.
*	=	Duplicate analysis not within control limits.
+	=	Correlation coefficient for the MSA is less than 0.995.

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SDG NARRATIVE

March 25, 2004

CLIENT: B&MC-IL

SDG No.: 54054

VOLATILE FRACTION

Two air samples were submitted for Volatile Organic Analysis. The samples were analyzed by GC/MS, following EPA Method TO-15.

No significant problems occurred during the analysis of these samples. Both samples were initially analyzed at a 10X dilution. Sample HAS-VOC-B-031804 was reanalyzed without dilution. Only the undiluted analysis is reported for this sample.

Blanks: No problem.

Surrogates: All surrogate concentrations were within QC recovery limits.

Internal Standards: All internal standard areas were within QC recovery limits.

Laboratory Control Spikes: All spike compounds were within QC recovery limits.

Matrix Spikes: Method TO-15 contain no provisions for matrix spiking, none was performed.

James G. Whittaker
Specialty Services Coordinator

March 25, 2004

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Sample Results

REPORT OF LABORATORY ANALYSIS

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PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	3/23/2004	DATA FILE:	W032207.D
SAMPLE ID:	HAS-VOC-A-031804	MATRIX:	AIR
LAB ID:	54054.01	METHOD:	TO15
DATE ANALYZED:	03/22/04	PROJECT:	29168-4.07
BLANK ID:	W040322A	DILUTION:	12.5

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Carbon Disulfide	13	10	32	J
1,1-Dichloroethane	13	13	51	U
2-Butanone	13	13	37	U
1,1,1-Trichloroethane	13	94	520	
Benzene	13	240	770	
Trichloroethene	13	5.0	27	J
Toluene	13	77	300	
Tetrachloroethene	13	3.3	23	J
Ethylbenzene	13	570	2500	
m,p-Xylene	13	190	850	
Styrene	13	3.9	17	JB
o-Xylene	13	220	970	
Xylene (Total)	13	410	1800	
Chloromethane	13	13	26	U
Naphthalene	13	290	1500	

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	96%
Benzene-d6	(73-125)	95%
Toluene-d8	(88-120)	96%
Bromofluorobenzene	(65-116)	108%

B = COMPOUND DETECTED IN THE BLANK
E = ESTIMATED VALUE, EXCEEDS CALIBRATION RANGE
J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
U = NOT DETECTED
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	3/25/2004	DATA FILE:	W032306.D
SAMPLE ID:	HAS-VOC-B-031804	MATRIX:	AIR
LAB ID:	54054.02	METHOD:	TO14
DATE ANALYZED:	03/23/04	PROJECT:	29168-4.07
BLANK ID:	W040323A	DILUTION:	1.25

PARAMETER	QUANTITATION LIMIT (	RESULTS PPBV)	(UG/M3)	Q
Carbon Disulfide	1.3	1.3	4.0	U
1,1-Dichloroethane	1.3	1.3	5.1	U
2-Butanone	1.3	2.1	6.3	
1,1,1-Trichloroethane	1.3	1.3	6.9	U
Benzene	1.3	4.0	13	
Trichloroethene	1.3	1.3	6.8	U
Toluene	1.3	1.5	5.6	
Tetrachloroethene	1.3	1.3	8.6	U
Ethylbenzene	1.3	0.41	1.8	J
m,p-Xylene	1.3	1.3	5.5	U
Styrene	1.3	3.7	16	B
o-Xylene	1.3	0.18	0.78	J
Xylene (Total)	1.3	1.3	5.5	U
Chloromethane	1.3	0.65	1.4	J
Naphthalene	1.3	36	190	

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	101%
Benzene-d6	(73-125)	96%
Toluene-d8	(88-120)	100%
Bromofluorobenzene	(65-116)	100%

B = COMPOUND DETECTED IN THE BLANK
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U = NOT DETECTED
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Quality Control Results

REPORT OF LABORATORY ANALYSIS

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PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE: 3/22/2004
SAMPLE ID: VBLK
LAB ID: W040322A
DATE ANALYZED: 03/22/04

DATA FILE: W032206.D
MATRIX: AIR
METHOD: TO15

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Carbon Disulfide	1.0	1.0	3.2	U
1,1-Dichloroethane	1.0	1.0	4.1	U
2-Butanone	1.0	1.0	3.0	U
1,1,1-Trichloroethane	1.0	1.0	5.5	U
Benzene	1.0	1.0	3.2	U
Trichloroethene	1.0	1.0	5.4	U
Toluene	1.0	1.0	3.8	U
Tetrachloroethene	1.0	1.0	6.9	U
Ethylbenzene	1.0	1.0	4.4	U
m,p-Xylene	1.0	1.0	4.4	U
Styrene	1.0	0.11	0.48	J
o-Xylene	1.0	1.0	4.4	U
Xylene (Total)	1.0	1.0	4.4	U
Chloromethane	1.0	1.0	2.1	U
Naphthalene	1.0	1.0	5.3	U

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	101%
Benzene-d6	(73-125)	95%
Toluene-d8	(88-120)	101%
Bromofluorobenzene	(65-116)	91%

B = COMPOUND DETECTED IN THE BLANK
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J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
U = NOT DETECTED
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

LABORATORY CONTROL SPIKE/SPIKE DUPLICATE RECOVERY

REPORT DATE: 3/22/2004

LCS FILE ID:	W032204.D	LCSD FILE ID:	W032205.D
LCS LAB ID:	LCS	LCSD LAB ID:	LCSD
MATRIX:	AIR	METHOD:	TO15
LCS DATE ANALYZED:	03/22/04	LCSD DATE ANALYZED:	03/22/04

PARAMETER	LCS SPIKE (PPBV)	LCS % REC.	LCSD % REC.	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
Vinyl Chloride	10	75	87	15	20	67-143
1,2-Dichloroethane	10	80	92	14	20	79-148
Benzene	10	92	92	0	20	66-149
Carbon Tetrachloride	10	120	120	0	20	62-151
1,2-Dichloropropane	10	92	95	3	20	70-150
Trichloroethene	10	87	92	6	20	75-144
trans-1,3-Dichloropropene	10	86	92	7	20	82-129
1,1,2-Trichloroethane	10	120	130	8	20	71-152
1,2-Dibromoethane	10	86	88	2	20	74-134
Tetrachloroethene	10	87	91	4	20	66-151
1,4-Dichlorobenzene	10	75	78	4	20	60-166

* = VALUE OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	3/22/2004	DATA FILE:	W032204.D
SAMPLE ID:	LCS	MATRIX:	AIR
LAB ID:	LCS	METHOD:	TO15
DATE ANALYZED:	03/22/04	PROJECT:	
BLANK ID:	W040322A	DILUTION:	1

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Dichlorodifluoromethane	1.0	1.0	5.0	U
Chloromethane	1.0	1.0	2.1	U
1,2-DC-1,1,2,2-TFA (F114)	1.0	1.0	7.1	U
Vinyl Chloride	1.0	7.5	20	
Bromomethane	1.0	1.0	3.9	U
Chloroethane	1.0	1.0	2.7	U
Trichlorofluoromethane (F11)	1.0	1.0	5.7	U
Acetone	1.0	1.0	2.4	U
1,1-Dichloroethene	1.0	1.0	4.0	U
1,1,2-TC-1,2,2-TFA (F113)	1.0	1.0	7.8	U
Methylene Chloride	1.0	1.0	3.5	U
Carbon Disulfide	1.0	1.0	3.2	U
trans-1,2-Dichloroethene	1.0	1.0	4.0	U
1,1-Dichloroethane	1.0	1.0	4.1	U
2-Butanone	1.0	1.0	3.0	U
cis-1,2-Dichloroethene	1.0	1.0	4.0	U
Chloroform	1.0	1.0	4.9	U
1,2-Dichloroethane	1.0	8.0	33	
1,1,1-Trichloroethane	1.0	1.0	5.5	U
Benzene	1.0	9.2	30	
Carbon Tetrachloride	1.0	12	76	
1,2-Dichloropropane	1.0	9.2	43	
Trichloroethene	1.0	8.7	47	
cis-1,3-Dichloropropene	1.0	1.0	4.6	U
trans-1,3-Dichloropropene	1.0	8.6	40	
1,1,2-Trichloroethane	1.0	12	66	
2-Hexanone	1.0	1.0	4.2	U
4-Methyl-2-Pentanone	1.0	1.0	4.2	U
Toluene	1.0	1.0	3.8	U
1,2-Dibromoethane	1.0	8.6	67	
Tetrachloroethene	1.0	8.7	60	
Chlorobenzene	1.0	1.0	4.7	U
Ethylbenzene	1.0	1.0	4.4	U
m,p-Xylene	1.0	1.0	4.4	U
Styrene	1.0	1.0	4.3	U
o-Xylene	1.0	1.0	4.4	U
1,1,2,2-Tetrachloroethane	1.0	1.0	7.0	U
4-Ethyltoluene	1.0	1.0	5.0	U
1,3,5-Trimethylbenzene	1.0	1.0	5.0	U
1,2,4-Trimethylbenzene	1.0	1.0	5.0	U
1,3-Dichlorobenzene	1.0	1.0	6.1	U
Benzyl Chloride	1.0	1.0	5.3	U
1,4-Dichlorobenzene	1.0	7.5	46	
1,2-Dichlorobenzene	1.0	1.0	6.1	U
1,2,4-Trichlorobenzene	1.0	1.0	7.5	U
Hexachlorobutadiene	1.0	1.0	11	U

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	3/22/2004	DATA FILE:	W032204.D
SAMPLE ID:	LCS	MATRIX:	AIR
LAB ID:	LCS	METHOD:	TO15
DATE ANALYZED:	03/22/04	PROJECT:	
BLANK ID:	W040322A	DILUTION:	1

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	97%
Benzene-d6	(73-125)	101%
Toluene-d8	(88-120)	98%
Bromofluorobenzene	(65-116)	97%

B = COMPOUND DETECTED IN THE BLANK
E = ESTIMATED VALUE, EXCEEDS CALIBRATION RANGE
J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
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PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	3/22/2004	DATA FILE:	W032205.D
SAMPLE ID:	LCSD	MATRIX:	AIR
LAB ID:	LCSD	METHOD:	TO15
DATE ANALYZED:	03/22/04	PROJECT:	
BLANK ID:	W040322A	DILUTION:	1

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Dichlorodifluoromethane	1.0	1.0	5.0	U
Chloromethane	1.0	1.0	2.1	U
1,2-DC-1,1,2,2-TFA (F114)	1.0	1.0	7.1	U
Vinyl Chloride	1.0	8.7	23	
Bromomethane	1.0	1.0	3.9	U
Chloroethane	1.0	1.0	2.7	U
Trichlorofluoromethane (F11)	1.0	1.0	5.7	U
Acetone	1.0	1.0	2.4	U
1,1-Dichloroethene	1.0	1.0	4.0	U
1,1,2-TC-1,2,2-TFA (F113)	1.0	1.0	7.8	U
Methylene Chloride	1.0	1.0	3.5	U
Carbon Disulfide	1.0	1.0	3.2	U
trans-1,2-Dichloroethene	1.0	1.0	4.0	U
1,1-Dichloroethane	1.0	1.0	4.1	U
2-Butanone	1.0	1.0	3.0	U
cis-1,2-Dichloroethene	1.0	1.0	4.0	U
Chloroform	1.0	1.0	4.9	U
1,2-Dichloroethane	1.0	9.2	38	
1,1,1-Trichloroethane	1.0	1.0	5.5	U
Benzene	1.0	9.2	30	
Carbon Tetrachloride	1.0	12	80	
1,2-Dichloropropane	1.0	9.5	45	
Trichloroethene	1.0	9.2	50	
cis-1,3-Dichloropropene	1.0	1.0	4.6	U
trans-1,3-Dichloropropene	1.0	9.2	42	
1,1,2-Trichloroethane	1.0	13	71	
2-Hexanone	1.0	1.0	4.2	U
4-Methyl-2-Pentanone	1.0	1.0	4.2	U
Toluene	1.0	1.0	3.8	U
1,2-Dibromoethane	1.0	8.8	69	
Tetrachloroethene	1.0	9.1	63	
Chlorobenzene	1.0	1.0	4.7	U
Ethylbenzene	1.0	1.0	4.4	U
m,p-Xylene	1.0	1.0	4.4	U
Styrene	1.0	1.0	4.3	U
o-Xylene	1.0	1.0	4.4	U
1,1,2,2-Tetrachloroethane	1.0	1.0	7.0	U
4-Ethyltoluene	1.0	1.0	5.0	U
1,3,5-Trimethylbenzene	1.0	1.0	5.0	U
1,2,4-Trimethylbenzene	1.0	1.0	5.0	U
1,3-Dichlorobenzene	1.0	1.0	6.1	U
Benzyl Chloride	1.0	1.0	5.3	U
1,4-Dichlorobenzene	1.0	7.8	48	
1,2-Dichlorobenzene	1.0	1.0	6.1	U
1,2,4-Trichlorobenzene	1.0	1.0	7.5	U
Hexachlorobutadiene	1.0	1.0	11	U

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	3/22/2004	DATA FILE:	W032205.D
SAMPLE ID:	LCSD	MATRIX:	AIR
LAB ID:	LCSD	METHOD:	TO15
DATE ANALYZED:	03/22/04	PROJECT:	
BLANK ID:	W040322A	DILUTION:	1

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	105%
Benzene-d6	(73-125)	100%
Toluene-d8	(88-120)	97%
Bromofluorobenzene	(65-116)	97%

B = COMPOUND DETECTED IN THE BLANK
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J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
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* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE: 3/25/2004
SAMPLE ID: VBLK
LAB ID: W040323A
DATE ANALYZED: 03/23/04

DATA FILE: W032303.D
MATRIX: AIR
METHOD: TO15

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Carbon Disulfide	1.0	1.0	3.2	U
1,1-Dichloroethane	1.0	1.0	4.1	U
2-Butanone	1.0	1.0	3.0	U
1,1,1-Trichloroethane	1.0	1.0	5.5	U
Benzene	1.0	1.0	3.2	U
Trichloroethene	1.0	1.0	5.4	U
Toluene	1.0	1.0	3.8	U
Tetrachloroethene	1.0	1.0	6.9	U
Ethylbenzene	1.0	1.0	4.4	U
m,p-Xylene	1.0	1.0	4.4	U
Styrene	1.0	0.23	0.99	J
o-Xylene	1.0	1.0	4.4	U
Xylene (Total)	1.0	1.0	4.4	U
Chloromethane	1.0	1.0	2.1	U
Naphthalene	1.0	1.0	5.3	U

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	102%
Benzene-d6	(73-125)	95%
Toluene-d8	(88-120)	98%
Bromofluorobenzene	(65-116)	93%

B = COMPOUND DETECTED IN THE BLANK
E = ESTIMATED VALUE, EXCEEDS CALIBRATION RANGE
J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
U = NOT DETECTED
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

LABORATORY CONTROL SPIKE/SPIKE DUPLICATE RECOVERY

REPORT DATE: 3/25/2004

LCS FILE ID:	W032304.D	LCSD FILE ID:	W032305.D
LCS LAB ID:	LCS	LCSD LAB ID:	LCSD
MATRIX:	AIR	METHOD:	TO15
LCS DATE ANALYZED:	03/23/04	LCSD DATE ANALYZED:	03/23/04

PARAMETER	LCS SPIKE (PPBV)	LCS % REC.	LCSD % REC.	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
Vinyl Chloride	10	98	96	2	20	67-143
1,2-Dichloroethane	10	100	100	0	20	79-148
Benzene	10	100	100	0	20	66-149
Carbon Tetrachloride	10	130	140	7	20	62-151
1,2-Dichloropropane	10	100	110	10	20	70-150
Trichloroethene	10	99	100	1	20	75-144
trans-1,3-Dichloropropene	10	95	99	4	20	82-129
1,1,2-Trichloroethane	10	130	140	7	20	71-152
1,2-Dibromoethane	10	95	97	2	20	74-134
Tetrachloroethene	10	99	100	1	20	66-151
1,4-Dichlorobenzene	10	82	84	2	20	60-166

* = VALUE OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE: 3/25/2004
SAMPLE ID: LCS
LAB ID: LCS
DATE ANALYZED: 03/23/04
BLANK ID: W040323A

DATA FILE: W032304.D
MATRIX: AIR
METHOD: TO15
PROJECT:
DILUTION: 1

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Dichlorodifluoromethane	1.0	1.0	5.0	U
Chloromethane	1.0	1.0	2.1	U
1,2-DC-1,1,2,2-TFA (F114)	1.0	1.0	7.1	U
Vinyl Chloride	1.0	9.8	26	B
Bromomethane	1.0	1.0	3.9	U
Chloroethane	1.0	1.0	2.7	U
Trichlorofluoromethane (F11)	1.0	1.0	5.7	U
Acetone	1.0	1.0	2.4	U
1,1-Dichloroethene	1.0	1.0	4.0	U
1,1,2-TC-1,2,2-TFA (F113)	1.0	1.0	7.8	U
Methylene Chloride	1.0	1.0	3.5	U
Carbon Disulfide	1.0	1.0	3.2	U
trans-1,2-Dichloroethene	1.0	1.0	4.0	U
1,1-Dichloroethane	1.0	1.0	4.1	U
2-Butanone	1.0	1.0	3.0	U
cis-1,2-Dichloroethene	1.0	1.0	4.0	U
Chloroform	1.0	1.0	4.9	U
1,2-Dichloroethane	1.0	10	41	B
1,1,1-Trichloroethane	1.0	1.0	5.5	U
Benzene	1.0	10.0	32	
Carbon Tetrachloride	1.0	13	85	B
1,2-Dichloropropane	1.0	10	48	B
Trichloroethene	1.0	9.9	54	
cis-1,3-Dichloropropene	1.0	1.0	4.6	U
trans-1,3-Dichloropropene	1.0	9.5	44	B
1,1,2-Trichloroethane	1.0	13	74	B
2-Hexanone	1.0	1.0	4.2	U
4-Methyl-2-Pentanone	1.0	1.0	4.2	U
Toluene	1.0	1.0	3.8	U
1,2-Dibromoethane	1.0	9.5	75	B
Tetrachloroethene	1.0	9.9	68	
Chlorobenzene	1.0	1.0	4.7	U
Ethylbenzene	1.0	1.0	4.4	U
m,p-Xylene	1.0	1.0	4.4	U
Styrene	1.0	1.0	4.3	U
o-Xylene	1.0	1.0	4.4	U
1,1,2,2-Tetrachloroethane	1.0	1.0	7.0	U
4-Ethyltoluene	1.0	1.0	5.0	U
1,3,5-Trimethylbenzene	1.0	1.0	5.0	U
1,2,4-Trimethylbenzene	1.0	1.0	5.0	U
1,3-Dichlorobenzene	1.0	1.0	6.1	U
Benzyl Chloride	1.0	1.0	5.3	U
1,4-Dichlorobenzene	1.0	8.2	50	B
1,2-Dichlorobenzene	1.0	1.0	6.1	U
1,2,4-Trichlorobenzene	1.0	1.0	7.5	U
Hexachlorobutadiene	1.0	1.0	11	U

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	3/25/2004	DATA FILE:	W032304.D
SAMPLE ID:	LCS	MATRIX:	AIR
LAB ID:	LCS	METHOD:	TO15
DATE ANALYZED:	03/23/04	PROJECT:	
BLANK ID:	W040323A	DILUTION:	1

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	97%
Benzene-d6	(73-125)	95%
Toluene-d8	(88-120)	99%
Bromofluorobenzene	(65-116)	95%

B = COMPOUND DETECTED IN THE BLANK
E = ESTIMATED VALUE, EXCEEDS CALIBRATION RANGE
J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
U = NOT DETECTED
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	3/25/2004	DATA FILE:	W032305.D
SAMPLE ID:	LCSD	MATRIX:	AIR
LAB ID:	LCSD	METHOD:	TO15
DATE ANALYZED:	03/23/04	PROJECT:	
BLANK ID:	W040323A	DILUTION:	1

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Dichlorodifluoromethane	1.0	1.0	5.0	U
Chloromethane	1.0	1.0	2.1	U
1,2-DC-1,1,2,2-TFA (F114)	1.0	1.0	7.1	U
Vinyl Chloride	1.0	9.6	25	B
Bromomethane	1.0	1.0	3.9	U
Chloroethane	1.0	1.0	2.7	U
Trichlorofluoromethane (F11)	1.0	1.0	5.7	U
Acetone	1.0	1.0	2.4	U
1,1-Dichloroethene	1.0	1.0	4.0	U
1,1,2-TC-1,2,2-TFA (F113)	1.0	1.0	7.8	U
Methylene Chloride	1.0	1.0	3.5	U
Carbon Disulfide	1.0	1.0	3.2	U
trans-1,2-Dichloroethene	1.0	1.0	4.0	U
1,1-Dichloroethane	1.0	1.0	4.1	U
2-Butanone	1.0	1.0	3.0	U
cis-1,2-Dichloroethene	1.0	1.0	4.0	U
Chloroform	1.0	1.0	4.9	U
1,2-Dichloroethane	1.0	10	42	B
1,1,1-Trichloroethane	1.0	1.0	5.5	U
Benzene	1.0	10	33	
Carbon Tetrachloride	1.0	14	87	B
1,2-Dichloropropane	1.0	11	49	B
Trichloroethene	1.0	10	55	
cis-1,3-Dichloropropene	1.0	1.0	4.6	U
trans-1,3-Dichloropropene	1.0	9.9	46	B
1,1,2-Trichloroethane	1.0	14	77	B
2-Hexanone	1.0	1.0	4.2	U
4-Methyl-2-Pentanone	1.0	1.0	4.2	U
Toluene	1.0	1.0	3.8	U
1,2-Dibromoethane	1.0	9.7	76	B
Tetrachloroethene	1.0	10	70	
Chlorobenzene	1.0	1.0	4.7	U
Ethylbenzene	1.0	1.0	4.4	U
m,p-Xylene	1.0	1.0	4.4	U
Styrene	1.0	1.0	4.3	U
o-Xylene	1.0	1.0	4.4	U
1,1,2,2-Tetrachloroethane	1.0	1.0	7.0	U
4-Ethyltoluene	1.0	1.0	5.0	U
1,3,5-Trimethylbenzene	1.0	1.0	5.0	U
1,2,4-Trimethylbenzene	1.0	1.0	5.0	U
1,3-Dichlorobenzene	1.0	1.0	6.1	U
Benzyl Chloride	1.0	1.0	5.3	U
1,4-Dichlorobenzene	1.0	8.4	51	B
1,2-Dichlorobenzene	1.0	1.0	6.1	U
1,2,4-Trichlorobenzene	1.0	1.0	7.5	U
Hexachlorobutadiene	1.0	1.0	11	U

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	3/25/2004	DATA FILE:	W032305.D
SAMPLE ID:	LCSD	MATRIX:	AIR
LAB ID:	LCSD	METHOD:	TO15
DATE ANALYZED:	03/23/04	PROJECT:	
BLANK ID:	W040323A	DILUTION:	1

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	98%
Benzene-d6	(73-125)	94%
Toluene-d8	(88-120)	101%
Bromofluorobenzene	(65-116)	95%

B = COMPOUND DETECTED IN THE BLANK
E = ESTIMATED VALUE, EXCEEDS CALIBRATION RANGE
J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
U = NOT DETECTED
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

Pace Analytical Services, Inc.
1700 West Albany, Suite A/ Broken Arrow, OK 74012
918-251-2858

SDG NARRATIVE

March 29, 2004

CONTRACT: B&MC

PROJECT: 29168-4.07

SDG NO: 54054

SEMIVOLATILE FRACTION

Two air samples were submitted for Semivolatile Organic analyses. The samples were analyzed by GC/MS following SW846 method 8270C fo Bis(2-ethylhexyl) phthalate and Dibenzofuran.

The following problems occurred with the analysis of these samples. The samples were inadvertently spied with matrix spike solution instead of surrogate solution. For these samples the lab is using 2,4-Dinitrotoluene and Pyrene as the surrogate control analytes.

Note: All target analytes detected between the reporting limit and the MDL are reported with a J-flag indicating an estimated value and any target analytes detected below the MDL are reported at the reporting limit with a "U" flag indicating undetected. A manual integration report is included for each manual integration performed on this data including a before and after picture of the peak, as well as the reason for the integration.

Extraction: The samples were extracted by SW846-3540C.

Blanks: No target contamination detected above the MDL.

Surrogates: All surrogate spikes within QC recovery limits.

Laboratory Control Spikes: All laboratory control spikes within QC recovery limits.

Matrix Spikes: No MS/MSD requested with this set of samples.

Internal Standards: Within QC recovery limits.

Diana L. Hoke

Diana L. Hoke
Laboratory Operations Manager

March 29, 2004

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1700 West Albany
Broken Arrow, OK 74012
Phone: 918.251.2858
Fax: 918.251.2599

Sample Results

REPORT OF LABORATORY ANALYSIS

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CLIENT : BURNS & MCDONNELL
LAB ID : 54054.03
SAMPLE : HAS-SVOC-A-031804
SDG : 54054
QAQC : 040322AA
MATRIX : A
SITE : Hawthorne Reg Sta.
METHOD : SW8270

REPORTED : 03/28/2004
SAMPLED : 03/18/2004
SUBMITTED : 03/19/2004
PREPARED : 03/22/2004
ANALYZED : 03/24/2004 10:13
DILUTION : 1
LEVEL : LO
EXTRACTED : 03/22/2004

SEMIVOLATILES BY SW846 8270C RESULTS REPORTED IN UG/PU

PARAMETER	RESULTS	QUALIFIER
DIBENZOFURAN	10	U
bis (2-ETHYLHEXYL) PHTHALATE	42	

QA/QC RECOVERIES

Parameter	%Rec	Limits
2,4-DINITROTOLUENE	58%	(26-110)
PYRENE	54%	(27-125)

COMPOUND* = RESULTS REPORTED AS RECEIVED

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CLIENT : BURNS & MCDONNELL
LAB ID : 54054.04
SAMPLE : HAS-SVOC-B-031804
SDG : 54054
QAQC : 040322AA
MATRIX : A
SITE : Hawthorne Reg Sta.
METHOD : SW8270

REPORTED : 03/28/2004
SAMPLED : 03/18/2004
SUBMITTED : 03/19/2004
PREPARED : 03/22/2004
ANALYZED : 03/24/2004 10:43
DILUTION : 1
LEVEL : LO
EXTRACTED : 03/22/2004

SEMIVOLATILES BY SW846 8270C RESULTS REPORTED IN UG/PU

PARAMETER	RESULTS	QUALIFIER
DIBENZOFURAN	10	U
bis (2-ETHYLHEXYL) PHTHALATE	10	U

QA/QC RECOVERIES

Parameter	%Rec	Limits
2,4-DINITROTOLUENE	58%	(26-110)
PYRENE	50%	(27-125)

COMPOUND* = RESULTS REPORTED AS RECEIVED

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Quality Control Results

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Fax: 918.251.2599

CLIENT : BURNS & MCDONNELL
LAB ID : SBLK LB1
QAQC : 040322AA
MATRIX : A
METHOD : SW8270

REPORTED : 03/28/2004
PREPARED : 03/22/2004
ANALYZED : 03/24/2004 09:44
DILUTION : 1
LEVEL : LO
EXTRACTED : 03/22/2004

SEMIVOLATILES BY SW846 8270C RESULTS REPORTED IN UG/PU

PARAMETER	RESULTS	QUALIFIER
DIBENZOFURAN	10	U
bis (2-ETHYLHEXYL) PHTHALATE	10	U

QA/QC RECOVERIES

Parameter	%Rec	Limits
2,4-DINITROTOLUENE	84%	(26-110)
PYRENE	60%	(27-125)

COMPOUND* = RESULTS REPORTED AS RECEIVED

REPORT OF LABORATORY ANALYSIS

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LABORATORY CONTROL SPIKE/SPIKE DUPLICATE RECOVERY

MATRIX : A

REPORTED : 03/28/2004

LAB ID	QC BATCH	ANALYZED
LCS	040322AA	2004-03-24 11:12
LCSD	040322AA	2004-03-24 11:42

Parameter	UG/PU	SPIKED AMOUNT	SPIKE CONC.	SPIKE %Rec	DUP CONC.	DUP %Rec	RPD	MAX LIMITS RPD	MAX LIMITS %Rec.
DIBENZOFURAN		50.0	42	84	43	86	2	20	30-130
bis (2-ETHYLHEXYL) PHTHALATE		50.0	54	108	51	102	6	20	30-130

QA/QC RECOVERIES

Parameter	SPIKE %Rec	Dup %Rec	Limits
2,4-DINITROTOLUENE	82%	84%	(26-110)
PYRENE	62%	63%	(27-125)

REPORT OF LABORATORY ANALYSIS

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April 5, 2004

Joan Gonzales
Burns and McDonnell Waste Consultants
2601 W. 22nd Street
Oak Brook, IL 60523

Project: 29168-4.07
SDG: 54112
PACE IDs: 54112.01-54112.04

Dear Ms. Gonzales:

Enclosed please find the Level II report for your samples received in our laboratory on March 26, 2004, for the above captioned project.

Thank you for choosing Pace Analytical Services. If you should have any questions or require further information, please do not hesitate to call.

Sincerely,

Randy Staggs
Project Manager

RS/st

Enclosures

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 WEST ALBANY
City/State/Zip: BROKEN ARROW, OK 74012
Telephone: (918) 251-2858

Document Control No: HAS-004-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS- HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Point	Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth (in feet)~~ START DATE	~~To~~ TIME	Sample END ~~Collected~~ Date	Time	Sample Type Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE	8270/BIS(2-ETHYLHEXYLPHTHALATE)	8270/DIBENZOFURAN				FINAL VACUUM	Remarks
HAS-VOC-A-032504			—	—	3/25/04	0812	3/25/04	~~0813~~ 0813			X	1	X							CANISTER # 190
HAS-VOC-B-032504			—	-	3/25/04	0809	3/25/04	0810			X	1	X							344
HAS-SVOC-A-032504			—	-	3/25/04	0953	3/25/04	1053			X	1		X	X					FLOW RATE: 1 L/MIN
HAS-SVOC-B-032504			—	—	3/25/04	0840	3/25/04	0940			X	1		X	X					1 L/MIN

3/25/04

PLEASE FIND: 2 COOLERS

Sampler (signature): [signature]
Sampler (signature):
Custody Seal Number: ~~0344~~ 032504PACE-001 THRU 032504PACE-004
Special Instructions: *USE LIST IN WORK ORDER NUMBER 29168-001. STANDARD TAT!

Relinquished By (signature): 1. [signature] Date/Time: 3/25/04 1200
Received By (signature): Date/Time:
Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt: 5.8°C

Relinquished By (signature): 2. Date/Time:
Received By (signature): [signature] Date/Time: 3/26/04 10:30
Laboratory Comments:

COOLER RECEIPT / SAMPLE LOG-IN SHEET

COOLER RECEIPT / SAMPLE LOG-IN SHEET (115-ATT2.WB1) / SWL-GA-115 REV 5.0 / GA-115-CRLOGIN-F

Pace Analytical

LAB NAME: PACE ANALYTICAL SERVICES, INC.

PAGE 1 OF 1

RECEIVED BY (PRINT NAME): R. STAGGS

RECEIVED BY (SIGNATURE): RS Staggs

LOGGED IN BY (SIGNATURE): RS Staggs

REC'D DATE 03/26/04

TIME REC'D 10:30

LOG-IN DATE 2004-03-26 21:58

PROJECT: 29168-4.07

EPISODE: 54112

SAMPLE DELIVERY GROUP:54112

Client Sample #	Sample Fraction @	Assigned LAB#	Cooler I.D.	pH Check	ACID/ BASE LOT#	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC.
HAS-VOC-A-032504		54112.01		N		OK
HAS-VOC-B-032504		54112.02		N		
HAS-SVOC-A-032504		54112.03		N		
HAS-SVOC-B-032504		54112.04		N		

Remarks

1. CUSTODY SEAL(S): Present/Absent
   Intact/ Broken
2. CUSTODY SEALS NOS.:
3. CHAIN-OF CUSTODY Present/Absent
   Sealed In Plastic? Yes/ No
   Taped To Lid? Yes/ No
   Properly Filled Out (Ink, Signed, ETC.)? Yes/ No
4. AIRBILL AirBill/ Sticker Present/Absent
5. AIRBILL NO: 841627956631
6. COOLER CONDITIONS
   Enough Ice? Yes/ No
   Type of Ice? Wet
   Type of Packing? Bubble Wrap
7. SAMPLE TAGS Absent
8. SAMPLE CONDITION:
   Intact/ Present/Broken*/ Leaking
   Bottles Sealed In Separate Plastic Bags? Yes/ No
   Correct Containers Used For Tests Indicated? Yes/ No
   Correct Preservative? Yes/ No
   Sufficient Sample? Yes/ No
   Labels Complete (I.D., Date, Time, Signature, Preservative? Yes/ No
   VOA Samples Without Bubbles? Yes/ No~
9. Does Information on Custody Records,Labels,Tags Agree? Yes/ No*
10. RAD SCREEN WITH GIEGER COUNTER? Yes/ No
11. P.O. Called? Yes/ No

* Contact PO and attach record of resolution

@ Sample Fractions: B=SV GC/MS, V= VOA GC/MS or GC, P=Pesticide,H=Herbicide, D=Dioxin, A=Air, I=Inorganics, C=Cyanide, M=Metals, R=Radiochemistry

~ Note samples with bubbles under remarks section.

PACE Qualifier Flags

SWL-GA-132 Rev. 4.4 File ID: GA132A9a

ORGANIC DATA QUALIFIER DEFINITIONS

METHODOLOGY

SM	=	Standard Methods, 19th Edition, 1995
EPA	=	#EPA600 / 4-79-020, March 1985
SW	=	EPA Methodology, "#SW846", Final Update III, June, 1997

GENERAL QUALIFIER FLAGS

B	=	Analyte is detected in blank as well as sample
J	=	Estimated value: concentration is below limit of quantitation
T	=	Trace amount
U	=	Not detected
>	=	Concentration greater than value reported
E	=	Compound exceeds calibration range
D	=	Sample dilution run or surrogates diluted out Sample run at secondary dilution
I	=	Not quantifiable due to matrix interference
*	=	Surrogate outside of QC limits on both original and re-analysis
P	=	Pesticide Aroclor Flag used when the % difference between two GC columns exceeds specified amount. See Case Narrative.

TPH 8015

1	=	Analysis shows miscellaneous peaks, which cannot be identified as any specific pattern. Response factor for nearest eluting hydrocarbon standard was used to calculate concentration.
2	=	Pattern is similar to, but not identical to standard.
3	=	May be a weathered gasoline.

APPENDIX IX SEMIVOLATILES

1	=	Detected as Diphenylamine
2	=	Coelute on GC Column

TCLP SEMIVOLATILES

1	=	1-methyl phenol
2	=	Compounds Co-elute (3 & 4-methylphenol)
3	=	Combination of O, M, & P Cresols

DIOXINS

X	=	EMPC (Estimated Maximum Possible Concentration)
I *	=	EMPC – ether interference

INORGANIC DATA QUALIFIER DEFINITIONS

B	=	The reported values were obtained from a reading that was less than the Practical Quantitation Limit (PQL) but greater than or equal to the Method Detection limit (MDL); if the analyte was analyzed but not detected a 'U' must be entered.
E	=	The reported value is estimated because of the presence of interference. An explanatory note must be included under "Comment" on the Cover Page if the problem applies to all samples or on the specific Form 1 if it is an isolated problem.
M	=	Duplicate injection precision not met.
N	=	Spike recovery not within control limits.
S	=	The reported value was determined by the Method of Standard Additions (MSA).
W	=	Post-Digestion spike for FGAA analysis is out of control limits (85-155%) while sample absorbance is less than 50% of spike absorbance.
*	=	Duplicate analysis not within control limits.
+	=	Correlation coefficient for the MSA is less than 0.995.

PACE ANALYTICAL SERVICES
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Pace Analytical Services, Inc.
1700 West Albany, Suite A / Broken Arrow, OK 74012
918-251-2858

SDG NARRATIVE
April 2, 2004

CLIENT: B&MC-IL

PROJECT: 29168-4.07

SDG NO: 54112

VOLATILE FRACTION

Two air samples were submitted for Volatile Organic Analysis. The samples were analyzed by GC/MS, following EPA Method TO-15.

No significant problems occurred during the analysis of these samples. Sample HAS-VOC-A-032504 required a dilution to get all target analytes within the instruments linear range. Both sets of data have been reported.

Initial Calibration: Within method requirements.

Continuing Calibration Verification: Within method requirements.

Blanks: The method blank contained low level Naphthalene contamination detected below the reporting limit.

Surrogates: All surrogate spikes within QC recovery limits.

Internal Standards: All internal standard areas were within QC recovery limits.

Laboratory Control Spikes: All spike compounds were within QC recovery limits.

Matrix Spikes: No matrix spikes were requested with these samples.

Diana L. Hoke

Diana L. Hoke
Laboratory Operations Manager

April 2, 2004

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	4/1/2004	DATA FILE:	W033106.D
SAMPLE ID:	HAS-VOC-A-032504	MATRIX:	AIR
LAB ID:	54112.01	METHOD:	TO15
DATE ANALYZED:	03/31/04	PROJECT:	29168-4.07
BLANK ID:	W040331A	DILUTION:	1.34

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Carbon Disulfide	1.3	9.6	31	
1,1-Dichloroethane	1.3	1.9	7.9	
2-Butanone	1.3	1.5	4.4	
1,1,1-Trichloroethane	1.3	76	420	E
Benzene	1.3	110	360	E
Trichloroethene	1.3	7.3	40	
Toluene	1.3	46	170	
Tetrachloroethene	1.3	2.8	19	
Ethylbenzene	1.3	170	740	E
m,p-Xylene	1.3	140	610	E
Styrene	1.3	2.4	10	
o-Xylene	1.3	130	570	E
Xylene (Total)	1.3	270	1200	E
Chloromethane	1.3	1.3	2.8	U
Naphthalene	1.3	270	1500	EB

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	96%
Benzene-d6	(73-125)	93%
Toluene-d8	(88-120)	92%
Bromofluorobenzene	(65-116)	115%

B = COMPOUND DETECTED IN THE BLANK
E = ESTIMATED VALUE, EXCEEDS CALIBRATION RANGE
J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
U = NOT DETECTED
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	4/1/2004	DATA FILE:	W033114.D
SAMPLE ID:	HAS-VOC-A-032504DL	MATRIX:	AIR
LAB ID:	54112.01DL	METHOD:	TO15
DATE ANALYZED:	03/31/04	PROJECT:	29168-4.07
BLANK ID:	W040331A	DILUTION:	13.4

PARAMETER	QUANTITATION LIMIT (	RESULTS PPBV)	(UG/M3)	Q
Carbon Disulfide	13	9.8	31	J
1,1-Dichloroethane	13	13	55	U
2-Butanone	13	13	40	U
1,1,1-Trichloroethane	13	84	460	
Benzene	13	140	470	
Trichloroethene	13	7.6	41	J
Toluene	13	54	210	
Tetrachloroethene	13	13	92	U
Ethylbenzene	13	350	1500	
m,p-Xylene	13	210	910	
Styrene	13	13	58	U
o-Xylene	13	190	860	
Xylene (Total)	13	400	1800	
Chloromethane	13	13	28	U
Naphthalene	13	370	1900	B

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	94%
Benzene-d6	(73-125)	93%
Toluene-d8	(88-120)	97%
Bromofluorobenzene	(65-116)	103%

B = COMPOUND DETECTED IN THE BLANK
E = ESTIMATED VALUE, EXCEEDS CALIBRATION RANGE
J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
U = NOT DETECTED
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	4/1/2004	DATA FILE:	W033113.D
SAMPLE ID:	HAS-VOC-B-032504	MATRIX:	AIR
LAB ID:	54112.02	METHOD:	TO15
DATE ANALYZED:	03/31/04	PROJECT:	29168-4.07
BLANK ID:	W040331A	DILUTION:	1.34

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Carbon Disulfide	1.3	1.2	3.7	J
1,1-Dichloroethane	1.3	1.3	5.5	U
2-Butanone	1.3	2.9	8.8	
1,1,1-Trichloroethane	1.3	4.4	24	
Benzene	1.3	0.65	2.1	J
Trichloroethene	1.3	1.3	7.3	U
Toluene	1.3	1.3	5.1	U
Tetrachloroethene	1.3	1.3	9.2	U
Ethylbenzene	1.3	1.3	5.9	U
m,p-Xylene	1.3	1.3	5.9	U
Styrene	1.3	1.3	5.8	U
o-Xylene	1.3	1.3	5.9	U
Xylene (Total)	1.3	1.3	5.9	U
Chloromethane	1.3	1.3	2.8	U
Naphthalene	1.3	7.2	38	B

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	96%
Benzene-d6	(73-125)	92%
Toluene-d8	(88-120)	98%
Bromofluorobenzene	(65-116)	97%

B = COMPOUND DETECTED IN THE BLANK
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PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE: 4/1/2004
SAMPLE ID: VBLK
LAB ID: W040331A
DATE ANALYZED: 03/31/04

DATA FILE: W033103.D
MATRIX: AIR
METHOD: TO15

PARAMETER	QUANTITATION LIMIT	RESULTS (PPBV)	(UG/M3)	Q
Carbon Disulfide	1.0	1.0	3.2	U
1,1-Dichloroethane	1.0	1.0	4.1	U
2-Butanone	1.0	1.0	3.0	U
1,1,1-Trichloroethane	1.0	1.0	5.5	U
Benzene	1.0	1.0	3.2	U
Trichloroethene	1.0	1.0	5.4	U
Toluene	1.0	1.0	3.8	U
Tetrachloroethene	1.0	1.0	6.9	U
Ethylbenzene	1.0	1.0	4.4	U
m,p-Xylene	1.0	1.0	4.4	U
Styrene	1.0	1.0	4.3	U
o-Xylene	1.0	1.0	4.4	U
Xylene (Total)	1.0	1.0	4.4	U
Chloromethane	1.0	1.0	2.1	U
Naphthalene	1.0	0.52	2.8	J

QA/QC SURROGATE RECOVERIES

1,2-Dichloroethane-d4	(79-122)	95%
Benzene-d6	(73-125)	93%
Toluene-d8	(88-120)	99%
Bromofluorobenzene	(65-116)	91%

B = COMPOUND DETECTED IN THE BLANK
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J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
U = NOT DETECTED
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

LABORATORY CONTROL SPIKE/SPIKE DUPLICATE RECOVERY

REPORT DATE: 4/1/2004

LCS FILE ID: W033104.D
LCS LAB ID: LCS
MATRIX: AIR
LCS DATE ANALYZED: 03/31/04

LCSD FILE ID: W033105.D
LCSD LAB ID: LCSD
METHOD: TO15
LCSD DATE ANALYZED: 03/31/04

PARAMETER	LCS SPIKE (PPBV)	LCS % REC.	LCSD % REC.	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
Vinyl Chloride	10	82	82	0	20	67-143
1,2-Dichloroethane	10	87	86	1	20	79-148
Benzene	10	94	95	1	20	66-149
Carbon Tetrachloride	10	120	120	0	20	62-151
1,2-Dichloropropane	10	96	96	0	20	70-150
Trichloroethene	10	94	93	1	20	75-144
trans-1,3-Dichloropropene	10	90	91	1	20	82-129
1,1,2-Trichloroethane	10	130	130	0	20	71-152
1,2-Dibromoethane	10	89	91	2	20	74-134
Tetrachloroethene	10	92	92	0	20	66-151
1,4-Dichlorobenzene	10	77	81	5	20	60-166

* = VALUE OUTSIDE OF QC LIMITS

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SDG NARRATIVE

April 5, 2004

CONTRACT: B&MC

PROJECT: 29168-4.07

SDG NO: 54112

SEMIVOLATILE FRACTION

Two air samples were submitted for Semivolatile Organic analyses. The samples were analyzed by GC/MS following SW846 method 8270C fo Bis(2-ethylhexyl) phthalate and Dibenzofuran.

No significant problems occurred with the analysis of these samples.

Note: All target analytes detected between the reporting limit and the MDL are reported with a J-flag indicating an estimated value and any target analytes detected below the MDL are reported at the reporting limit with a "U" flag indicating undetected. A manual integration report is included for each manual integration performed on this data including a before and after picture of the peak, as well as the reason for the integration.

Extraction: The samples were extracted by SW846-3540C.

Blanks: No target contamination detected above the MDL.

Surrogates: All surrogate spikes within QC recovery limits.

Laboratory Control Spikes: All laboratory control spikes within QC recovery limits.

Matrix Spikes: No MS/MSD requested with this set of samples.

Internal Standards: Within QC recovery limits.

Diana L. Hoke

Diana L. Hoke
Laboratory Operations Manager

April 5, 2004

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	4/2/04	DATA FILE:	V4040109.D
SAMPLE ID:	HAS-SVOC-A-032504	MATRIX:	AIR
LAB ID:	54112.03	METHOD:	SW846-8270C
DATE ANALYZED:	04/01/04	PROJECT:	29168-4.07
BLANK ID:	BL0329AA	DILUTION:	1

PARAMETER	QUANTITATION LIMIT	RESULTS (UG/PUF)	Q
Dibenzofuran	10	10	U
bis(2-Ethylhexyl)phthalate	10	5	J

QA/QC SURROGATE RECOVERIES

2-Fluorophenol	(25-121)	68%
Phenol-d5	(24-113)	89%
2-Chlorophenol-d4	(20-130)	68%
1,2-Dichlorobenzene-d4	(20-130)	61%
Nitrobenzene-d5	(23-120)	79%
2-Fluorobiphenyl	(30-115)	77%
2,4,6-Tribromophenol	(19-122)	96%
Terphenyl-d14	(18-137)	73%

B = COMPOUND DETECTED IN THE BLANK
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J = ESTIMATED VALUE, CONCENTRATION BELOW QUANTITATION LIMIT
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PACE ANALYTICAL SERVICES
GC/MS LABORATORY

REPORT DATE:	4/2/04	DATA FILE:	V4040110.D
SAMPLE ID:	HAS-SVOC-B-032504	MATRIX:	AIR
LAB ID:	54112.04	METHOD:	SW846-8270C
DATE ANALYZED:	04/01/04	PROJECT:	29168-4.07
BLANK ID:	BL0329AA	DILUTION:	1

PARAMETER	QUANTITATION LIMIT	RESULTS (UG/PUF)	Q
Dibenzofuran	10	10	U
bis(2-Ethylhexyl)phthalate	10	10	U

QA/QC SURROGATE RECOVERIES

2-Fluorophenol	(25-121)	65%
Phenol-d5	(24-113)	86%
2-Chlorophenol-d4	(20-130)	67%
1,2-Dichlorobenzene-d4	(20-130)	64%
Nitrobenzene-d5	(23-120)	83%
2-Fluorobiphenyl	(30-115)	77%
2,4,6-Tribromophenol	(19-122)	96%
Terphenyl-d14	(18-137)	75%

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REPORT DATE:	4/2/04	DATA FILE:	V4040107.D
SAMPLE ID:	SBLK	MATRIX:	AIR
LAB ID:	BL0329AA	METHOD:	SW846-8270C
DATE ANALYZED:	04/01/04		

PARAMETER	QUANTITATION LIMIT	RESULTS (UG/PUF)	Q
Dibenzofuran	10	10	U
bis(2-Ethylhexyl)phthalate	10	10	U

QA/QC SURROGATE RECOVERIES

2-Fluorophenol	(25-121)	72%
Phenol-d5	(24-113)	79%
2-Chlorophenol-d4	(20-130)	73%
1,2-Dichlorobenzene-d4	(20-130)	86%
Nitrobenzene-d5	(23-120)	88%
2-Fluorobiphenyl	(30-115)	87%
2,4,6-Tribromophenol	(19-122)	91%
Terphenyl-d14	(18-137)	78%

B = COMPOUND DETECTED IN THE BLANK
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U = NOT DETECTED
* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

PACE ANALYTICAL SERVICES
GC/MS LABORATORY

LABORATORY CONTROL SPIKE/SPIKE DUPLICATE RECOVERY

REPORT DATE: 4/2/04

LCS FILE ID:	V4040117.D	LCSD FILE ID:	V4040118.D
LCS LAB ID:	LC0329AA	LCSD LAB ID:	LD0329AA
MATRIX:	AIR	METHOD:	SW846-8270C
LCS DATE ANALYZED:	04/01/04	LCSD DATE ANALYZED:	04/01/04

PARAMETER	LCS SPIKE (UG/PUF)	LCS % REC.	LCSD % REC.	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
Dibenzofuran	50	90	84	7	20	30-130
bis(2-Ethylhexyl)phthalate	50	108	102	6	20	30-130

* = VALUE OUTSIDE OF QC LIMITS

Page 1 of 1

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RECEIVED
MAY 1 0 2004
Burns & McDonnell
Oak Brook, IL

May 07, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on April 7, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

REPORT OF LABORATORY ANALYSIS
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Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105498935
Client Sample ID: HAS-VOC-A-040104

Project Sample Number: 1087068-001
Matrix: Air

Date Collected: 04/01/04 11:26
Date Received: 04/07/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	13.	04/26/04 22:22	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	14.	04/26/04 22:22	YA1	75-34-3		
1,1,1-Trichloroethane	58.	ppbv	14.	04/26/04 22:22	YA1	71-55-6		
Benzene	140	ppbv	14.	04/26/04 22:22	YA1	71-43-2		
Trichloroethene	ND	ppbv	14.	04/26/04 22:22	YA1	79-01-6		
Toluene	61.	ppbv	14.	04/26/04 22:22	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	14.	04/26/04 22:22	YA1	127-18-4		
Ethylbenzene	340	ppbv	14.	04/26/04 22:22	YA1	100-41-4		
m&p-Xylene	250	ppbv	26.	04/26/04 22:22	YA1			
o-Xylene	230	ppbv	14.	04/26/04 22:22	YA1	95-47-6		
Styrene	ND	ppbv	14.	04/26/04 22:22	YA1	100-42-5		
2-Butanone (MEK)	ND	ppbv	14.	04/26/04 22:22	YA1	78-93-3		
Carbon disulfide	ND	ppbv	13.	04/26/04 22:22	YA1	75-15-0		
Naphthalene	1400	ppbv	49.	04/26/04 22:22	YA1	91-20-3		
Xylene (Total)	480	ppbv	39.	04/26/04 22:22	YA1	1330-20-7		

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Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105498950
Client Sample ID: HAS-VOC-B-040104

Project Sample Number: 1087068-002
Matrix: Air

Date Collected: 04/01/04 10:06
Date Received: 04/07/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.65	04/27/04 23:41	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.68	04/27/04 23:41	YA1	75-34-3		
1,1,1-Trichloroethane	1.2	ppbv	0.68	04/27/04 23:41	YA1	71-55-6		
Benzene	2.0	ppbv	0.68	04/27/04 23:41	YA1	71-43-2		
Trichloroethene	ND	ppbv	0.68	04/27/04 23:41	YA1	79-01-6		
Toluene	0.95	ppbv	0.68	04/27/04 23:41	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	0.68	04/27/04 23:41	YA1	127-18-4		
Ethylbenzene	6.4	ppbv	0.68	04/27/04 23:41	YA1	100-41-4		
m&p-Xylene	4.8	ppbv	1.3	04/27/04 23:41	YA1			
o-Xylene	4.3	ppbv	0.68	04/27/04 23:41	YA1	95-47-6		
Styrene	ND	ppbv	0.72	04/27/04 23:41	YA1	100-42-5		
2-Butanone (MEK)	1.1	ppbv	0.72	04/27/04 23:41	YA1	78-93-3		
Carbon disulfide	0.66	ppbv	0.65	04/27/04 23:41	YA1	75-15-0		
Naphthalene	19.	ppbv	0.65	04/27/04 23:41	YA1	91-20-3		
Xylene (Total)	9.2	ppbv	2.0	04/27/04 23:41	YA1	1330-20-7		

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Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105499040 | Project Sample Number: 1087068-003 | Date Collected: 04/01/04 12:00
Client Sample ID: HAS-SVOC-A-040104 | Matrix: Air | Date Received: 04/07/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	04/22/04 10:54	BJP	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	04/22/04 10:54	BJP	117-81-7		
Nitrobenzene-d5 (S)	100	%		04/22/04 10:54	BJP	4165-60-0		
2-Fluorobiphenyl (S)	106	%		04/22/04 10:54	BJP	321-60-8		
Terphenyl-d14 (S)	113	%		04/22/04 10:54	BJP	1718-51-0		
Date Extracted	04/16/04			04/16/04				

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Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105499065
Client Sample ID: HAS-SVOC-B-040104

Project Sample Number: 1087068-004
Matrix: Air

Date Collected: 04/01/04 11:00
Date Received: 04/07/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	04/22/04 11:32	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	04/22/04 11:32	KSK	117-81-7		
Nitrobenzene-d5 (S)	104	%		04/22/04 11:32	KSK	4165-60-0		
2-Fluorobiphenyl (S)	107	%		04/22/04 11:32	KSK	321-60-8		
Terphenyl-d14 (S)	116	%		04/22/04 11:32	KSK	1718-51-0		
Date Extracted	04/16/04			04/16/04				

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Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 107940
QC Batch Method: TO-15
Associated Lab Samples: 105498935

Analysis Method: TO-15
Analysis Description: TO15

METHOD BLANK: 105564041
Associated Lab Samples: 105498935

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	

LABORATORY CONTROL SAMPLE: 105564058

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	12.10	120	
1,1-Dichloroethane	ppbv	10.10	11.91	118	
1,1,1-Trichloroethane	ppbv	10.20	11.70	115	
Benzene	ppbv	10.20	12.11	119	
Trichloroethene	ppbv	10.30	12.53	122	
Toluene	ppbv	10.40	12.41	119	
Tetrachloroethene	ppbv	10.30	12.25	119	
Ethylbenzene	ppbv	10.40	12.47	120	
m&p-Xylene	ppbv	20.80	24.61	118	
o-Xylene	ppbv	10.40	12.51	120	
Styrene	ppbv	10.10	13.28	132	

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QUALITY CONTROL DATA

Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105564058

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ppbv	10.20	12.60	124	
Carbon disulfide	ppbv	10.00	11.81	118	

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QUALITY CONTROL DATA

Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 107999
QC Batch Method: TO-15
Associated Lab Samples: 105498950

Analysis Method: TO-15
Analysis Description: TO15

METHOD BLANK: 105567531
Associated Lab Samples: 105498950

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	

LABORATORY CONTROL SAMPLE: 105567549

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	12.10	120	
1,1-Dichloroethane	ppbv	10.10	11.91	118	
1,1,1-Trichloroethane	ppbv	10.20	11.70	115	
Benzene	ppbv	10.20	12.11	119	
Trichloroethene	ppbv	10.30	12.53	122	
Toluene	ppbv	10.40	12.41	119	
Tetrachloroethene	ppbv	10.30	12.25	119	
Ethylbenzene	ppbv	10.40	12.47	120	
m&p-Xylene	ppbv	20.80	24.61	118	
o-Xylene	ppbv	10.40	9.680	93	
Styrene	ppbv	10.10	13.28	132	

Date: 05/07/04

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QUALITY CONTROL DATA

Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105567549

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ppbv	10.20	12.60	124	
Carbon disulfide	ppbv	10.00	11.81	118	

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QUALITY CONTROL DATA

Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 107450 Analysis Method: EPA 8270
QC Batch Method: Analysis Description: Semivolatiles in Air
Associated Lab Samples: 105499040 105499065

METHOD BLANK: 105532303
Associated Lab Samples: 105499040 105499065

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Dibenzofuran	Total ug	ND	10.	
bis(2-Ethylhexyl)phthalate	Total ug	ND	10.	
Nitrobenzene-d5 (S)	%	101		
2-Fluorobiphenyl (S)	%	108		
Terphenyl-d14 (S)	%	113		

LABORATORY CONTROL SAMPLE & LCSD: 105532311 105532329

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Dibenzofuran	Total ug	200.00	284.1	264.8	142	132	7	
bis(2-Ethylhexyl)phthalate	Total ug	200.00	302.1	272.5	151	136	10	
Nitrobenzene-d5 (S)					104	95		
2-Fluorobiphenyl (S)					110	103		
Terphenyl-d14 (S)					117	107		

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Lab Project Number: 1087068
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1087068
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105498935 ProjSampleNum: 1087068-001 Date Collected: 04/01/04 11:26
Client Sample ID: HAS-VOC-A-040104 Matrix: Air Date Received: 04/07/04 9:10

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	322	ug/m3	78	04/26/04 22:22 YA1	71-55-6	
1,1-Dichloroethane	ND	ug/m3	58	04/26/04 22:22 YA1	75-34-3	
2-Butanone (MEK)	ND	ug/m3	42	04/26/04 22:22 YA1	78-93-3	
Benzene	455	ug/m3	45	04/26/04 22:22 YA1	71-43-2	
Carbon disulfide	ND	ug/m3	41	04/26/04 22:22 YA1	75-15-0	
Chloromethane	ND	ug/m3	27	04/26/04 22:22 YA1	74-87-3	
Ethylbenzene	1500	ug/m3	62	04/26/04 22:22 YA1	100-41-4	
m&p-Xylene	1100	ug/m3	110	04/26/04 22:22 YA1		
Naphthalene	7460	ug/m3	260	04/26/04 22:22 YA1	91-20-3	
o-Xylene	1020	ug/m3	62	04/26/04 22:22 YA1	95-47-6	
Styrene	ND	ug/m3	61	04/26/04 22:22 YA1	100-42-5	
Tetrachloroethene	ND	ug/m3	97	04/26/04 22:22 YA1	127-18-4	
Toluene	234	ug/m3	54	04/26/04 22:22 YA1	108-88-3	
Trichloroethene	ND	ug/m3	76	04/26/04 22:22 YA1	79-01-6	
Xylene (Total)	2120	ug/m3	170	04/26/04 22:22 YA1	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 5/7/2004

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Units Conversion Request

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1087068
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105498950 ProjSampleNum: 1087068-002 Date Collected: 04/01/04 10:06
Client Sample ID: HAS-VOC-B-040104 Matrix: Air Date Received: 04/07/04 9:10

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	6.66	ug/m3	3.8	04/27/04 23:41 YA1	71-55-6	
1,1-Dichloroethane	ND	ug/m3	2.8	04/27/04 23:41 YA1	75-34-3	
2-Butanone (MEK)	3.3	ug/m3	2.2	04/27/04 23:41 YA1	78-93-3	
Benzene	6.49	ug/m3	2.2	04/27/04 23:41 YA1	71-43-2	
Carbon disulfide	2.09	ug/m3	2.1	04/27/04 23:41 YA1	75-15-0	
Chloromethane	ND	ug/m3	1.4	04/27/04 23:41 YA1	74-87-3	
Ethylbenzene	28.2	ug/m3	3	04/27/04 23:41 YA1	100-41-4	
m&p-Xylene	21.2	ug/m3	5.7	04/27/04 23:41 YA1		
Naphthalene	101	ug/m3	3.5	04/27/04 23:41 YA1	91-20-3	
o-Xylene	19	ug/m3	3	04/27/04 23:41 YA1	95-47-6	
Styrene	ND	ug/m3	3.1	04/27/04 23:41 YA1	100-42-5	
Tetrachloroethene	ND	ug/m3	4.7	04/27/04 23:41 YA1	127-18-4	
Toluene	3.64	ug/m3	2.6	04/27/04 23:41 YA1	108-88-3	
Trichloroethene	ND	ug/m3	3.7	04/27/04 23:41 YA1	79-01-6	
Xylene (Total)	40.6	ug/m3	8.8	04/27/04 23:41 YA1	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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1087068

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

13592

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 WEST ALBANY
City/State/Zip: BROKEN ARROW, OK 74012
Telephone: (918) 251-2858

Document Control No: HAS-005-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth (in feet)~~ START DUS: ~~From~~ DUS DATE	Sample ~~Depth (in feet)~~ START DUS: ~~To~~ DUS TIME	Sample END ~~Collected~~ DUS: Date	Sample END ~~Collected~~ DUS: Time	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE	Parameter/Method Code: 8270/BIS(2-ETHYLHEXYL)PHTHALATE	Parameter/Method Code: 8270/DIBENZOFURAN	Parameter/Method Code: FINAL VACUUM	Remarks
HAS-VOC-A-040104		DUS	—	—	DUS 4/1/04	1125	4/1/04	1126			X	1	X		5498935	0	CANISTER # 337
HAS-VOC-B-040104			—	—	4/1/04	1005	4/1/04	1006			X	1	X		5498950	0	375
HAS-SVOC-A-040104			—	—	4/1/04	1100	4/1/04	1200			X	1		X	X	5499040	FLOW RATE: 1 L/MIN
HAS-SVOC-B-040104			—	—	4/1/04	1000	4/1/04	1100			X	1		X	X	5499065	1 L/MIN

4/1/04

PLEASE FIND: 2 COOLERS

Sampler (signature): [signature]
Sampler (signature):
Custody Seal Number: ~~032604~~ DUS 040104PACE-001 THRU 040104PACE-004
Special Instructions: * USE LIST IN WORK ORDER NUMBER 29168-001. STANDARD TAT!

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
1. [signature]	4/1/04 1230	[signature]	4/2/04 10:15
2.		[signature]	4-6-04 09:10

Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt: 3.2°C (8270)
Laboratory Comments: XAD tubes were received on ice 4-6-04
BR 4-28-04

061301 Form WCD-KC1-CHI

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RECEIVED
MAY 1 0 2004
Burns & McDonnell
Oak Brook, IL

May 07, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on April 9, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

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Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1087158
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105507065 ProjSampleNum: 1087158-001 Date Collected: 04/08/04 11:21
Client Sample ID: HAS-VOC-A-040804 Matrix: Air Date Received: 04/09/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	383	ug/m3	78	04/27/04 1:22 YA1	71-55-6	
1,1-Dichloroethane	ND	ug/m3	58	04/27/04 1:22 YA1	75-34-3	
2-Butanone (MEK)	ND	ug/m3	45	04/27/04 1:22 YA1	78-93-3	
Benzene	942	ug/m3	45	04/27/04 1:22 YA1	71-43-2	
Carbon disulfide	50.6	ug/m3	41	04/27/04 1:22 YA1	75-15-0	
Chloromethane	ND	ug/m3	27	04/27/04 1:22 YA1	74-87-3	
Ethylbenzene	4860	ug/m3	230	04/27/04 1:22 YA1	100-41-4	
m&p-Xylene	2070	ug/m3	120	04/27/04 1:22 YA1		
Naphthalene	6920	ug/m3	270	04/27/04 1:22 YA1	91-20-3	
o-Xylene	1770	ug/m3	62	04/27/04 1:22 YA1	95-47-6	
Styrene	ND	ug/m3	65	04/27/04 1:22 YA1	100-42-5	
Tetrachloroethene	ND	ug/m3	97	04/27/04 1:22 YA1	127-18-4	
Toluene	498	ug/m3	54	04/27/04 1:22 YA1	108-88-3	
Trichloroethene	ND	ug/m3	76	04/27/04 1:22 YA1	79-01-6	
Xylene (Total)	3840	ug/m3	180	04/27/04 1:22 YA1	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 5/7/2004

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Units Conversion Request

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1087158
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105507131
Client Sample ID: HAS-VOC-B-040804

ProjSampleNum: 1087158-002
Matrix: Air

Date Collected: 04/08/04 10:16
Date Received: 04/09/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	3.9	04/27/04 2:20 YA1	71-55-6	
1,1-Dichloroethane	ND	ug/m3	2.9	04/27/04 2:20 YA1	75-34-3	
2-Butanone (MEK)	7.49	ug/m3	2.2	04/27/04 2:20 YA1	78-93-3	
Benzene	8.12	ug/m3	2.3	04/27/04 2:20 YA1	71-43-2	
Carbon disulfide	6.01	ug/m3	2.1	04/27/04 2:20 YA1	75-15-0	
Chloromethane	ND	ug/m3	1.4	04/27/04 2:20 YA1	74-87-3	
Ethylbenzene	32.2	ug/m3	3.1	04/27/04 2:20 YA1	100-41-4	
m&p-Xylene	39.3	ug/m3	5.7	04/27/04 2:20 YA1		
Naphthalene	107	ug/m3	3.6	04/27/04 2:20 YA1	91-20-3	
o-Xylene	28.7	ug/m3	3.1	04/27/04 2:20 YA1	95-47-6	
Styrene	ND	ug/m3	3.2	04/27/04 2:20 YA1	100-42-5	
Tetrachloroethene	ND	ug/m3	4.8	04/27/04 2:20 YA1	127-18-4	
Toluene	4.98	ug/m3	2.7	04/27/04 2:20 YA1	108-88-3	
Trichloroethene	ND	ug/m3	3.8	04/27/04 2:20 YA1	79-01-6	
Xylene (Total)	66.2	ug/m3	8.8	04/27/04 2:20 YA1	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105507065 | Project Sample Number: 1087158-001 | Date Collected: 04/08/04 11:21
Client Sample ID: HAS-VOC-A-040804 | Matrix: Air | Date Received: 04/09/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
T015	Method: TO-15							
Chloromethane	ND	ppbv	13.	04/27/04 01:22	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	14.	04/27/04 01:22	YA1	75-34-3		
1,1,1-Trichloroethane	69.	ppbv	14.	04/27/04 01:22	YA1	71-55-6		
Benzene	290	ppbv	14.	04/27/04 01:22	YA1	71-43-2		
Trichloroethene	ND	ppbv	14.	04/27/04 01:22	YA1	79-01-6		
Toluene	130	ppbv	14.	04/27/04 01:22	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	14.	04/27/04 01:22	YA1	127-18-4		
Ethylbenzene	1100	ppbv	53.	04/27/04 01:22	YA1	100-41-4		
m&p-Xylene	470	ppbv	27.	04/27/04 01:22	YA1			
o-Xylene	400	ppbv	14.	04/27/04 01:22	YA1	95-47-6		
Styrene	ND	ppbv	15.	04/27/04 01:22	YA1	100-42-5		
2-Butanone (MEK)	ND	ppbv	15.	04/27/04 01:22	YA1	78-93-3		
Carbon disulfide	16.	ppbv	13.	04/27/04 01:22	YA1	75-15-0		
Naphthalene	1300	ppbv	51.	04/27/04 01:22	YA1	91-20-3		
Xylene (Total)	870	ppbv	40.	04/27/04 01:22	YA1	1330-20-7		

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Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105507131
Client Sample ID: HAS-VOC-B-040804

Project Sample Number: 1087158-002
Matrix: Air

Date Collected: 04/08/04 10:16
Date Received: 04/09/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.67	04/27/04 02:20	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.70	04/27/04 02:20	YA1	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.70	04/27/04 02:20	YA1	71-55-6		
Benzene	2.5	ppbv	0.70	04/27/04 02:20	YA1	71-43-2		
Trichloroethene	ND	ppbv	0.70	04/27/04 02:20	YA1	79-01-6		
Toluene	1.3	ppbv	0.70	04/27/04 02:20	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	0.70	04/27/04 02:20	YA1	127-18-4		
Ethylbenzene	7.3	ppbv	0.70	04/27/04 02:20	YA1	100-41-4		
m&p-Xylene	8.9	ppbv	1.3	04/27/04 02:20	YA1			
o-Xylene	6.5	ppbv	0.70	04/27/04 02:20	YA1	95-47-6		
Styrene	ND	ppbv	0.74	04/27/04 02:20	YA1	100-42-5		
2-Butanone (MEK)	2.5	ppbv	0.74	04/27/04 02:20	YA1	78-93-3		
Carbon disulfide	1.9	ppbv	0.67	04/27/04 02:20	YA1	75-15-0		
Naphthalene	20.	ppbv	0.67	04/27/04 02:20	YA1	91-20-3		
Xylene (Total)	15.	ppbv	2.0	04/27/04 02:20	YA1	1330-20-7		

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Fax: 612.607.6444

Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105507164 | Project Sample Number: 1087158-003 | Date Collected: 04/08/04 12:15
Client Sample ID: HAS-SVOC-A-040804 | Matrix: Air | Date Received: 04/09/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	04/22/04 14:40	BJP	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	04/22/04 14:40	BJP	117-81-7		
Nitrobenzene-d5 (S)	99	%		04/22/04 14:40	BJP	4165-60-0		
2-Fluorobiphenyl (S)	108	%		04/22/04 14:40	BJP	321-60-8		
Terphenyl-d14 (S)	115	%		04/22/04 14:40	BJP	1718-51-0		
Date Extracted	04/16/04			04/16/04				

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Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105507172 | Project Sample Number: 1087158-004 | Date Collected: 04/08/04 11:05
Client Sample ID: HAS-SVOC-B-040804 | Matrix: Air | Date Received: 04/09/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	04/22/04 12:47	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	04/22/04 12:47	KSK	117-81-7		
Nitrobenzene-d5 (S)	105	%		04/22/04 12:47	KSK	4165-60-0		
2-Fluorobiphenyl (S)	112	%		04/22/04 12:47	KSK	321-60-8		
Terphenyl-d14 (S)	117	%		04/22/04 12:47	KSK	1718-51-0		
Date Extracted	04/16/04			04/16/04				

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Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 107940
QC Batch Method: TO-15
Associated Lab Samples: 105507065

Analysis Method: TO-15
Analysis Description: TO15

METHOD BLANK: 105564041
Associated Lab Samples: 105507065

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	

LABORATORY CONTROL SAMPLE: 105564058

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	12.10	120	
1,1-Dichloroethane	ppbv	10.10	11.91	118	
1,1,1-Trichloroethane	ppbv	10.20	11.70	115	
Benzene	ppbv	10.20	12.11	119	
Trichloroethene	ppbv	10.30	12.53	122	
Toluene	ppbv	10.40	12.41	119	
Tetrachloroethene	ppbv	10.30	12.25	119	
Ethylbenzene	ppbv	10.40	12.47	120	
m&p-Xylene	ppbv	20.80	24.61	118	
o-Xylene	ppbv	10.40	12.51	120	
Styrene	ppbv	10.10	13.28	132	

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QUALITY CONTROL DATA

Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105564058

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ppbv	10.20	12.60	124	
Carbon disulfide	ppbv	10.00	11.81	118	

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QUALITY CONTROL DATA

Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 107999 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105507131

METHOD BLANK: 105567531
Associated Lab Samples: 105507131

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	

LABORATORY CONTROL SAMPLE: 105567549

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	12.10	120	
1,1-Dichloroethane	ppbv	10.10	11.91	118	
1,1,1-Trichloroethane	ppbv	10.20	11.70	115	
Benzene	ppbv	10.20	12.11	119	
Trichloroethene	ppbv	10.30	12.53	122	
Toluene	ppbv	10.40	12.41	119	
Tetrachloroethene	ppbv	10.30	12.25	119	
Ethylbenzene	ppbv	10.40	12.47	120	
m&p-Xylene	ppbv	20.80	24.61	118	
o-Xylene	ppbv	10.40	9.680	93	
Styrene	ppbv	10.10	13.28	132	

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QUALITY CONTROL DATA

Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105567549

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ppbv	10.20	12.60	124	
Carbon disulfide	ppbv	10.00	11.81	118	

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QUALITY CONTROL DATA

Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 107450 Analysis Method: EPA 8270
QC Batch Method: Analysis Description: Semivolatiles in Air
Associated Lab Samples: 105507164 105507172

METHOD BLANK: 105532303
Associated Lab Samples: 105507164 105507172

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Dibenzofuran	Total ug	ND	10.	
bis(2-Ethylhexyl)phthalate	Total ug	ND	10.	
Nitrobenzene-d5 (S)	%	101		
2-Fluorobiphenyl (S)	%	108		
Terphenyl-d14 (S)	%	113		

LABORATORY CONTROL SAMPLE & LCSD: 105532311 105532329

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Dibenzofuran	Total ug	200.00	284.1	264.8	142	132	7	
bis(2-Ethylhexyl)phthalate	Total ug	200.00	302.1	272.5	151	136	10	
Nitrobenzene-d5 (S)					104	95		
2-Fluorobiphenyl (S)					110	103		
Terphenyl-d14 (S)					117	107		

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Lab Project Number: 1087158
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record 1D87158

s & McDonnell Engineering
W. 22nd St
Brook, Illinois 60523
ıe: (630) 990-0300 Fax: (630) 990-0301
ıtion: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-007-2004
Lab. Reference No. or Episode No.:

ect Number: 29168
Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: up or J Name	Sample Point	Sample Designator	Sample Event: Round	Year	Sample ~~Depth~~ (~~in feet~~) START DUS ~~From~~ DATE	~~To~~ DUS TIME	Sample ~~Collected~~ ENDS DUS Date	Time	Sample Type: Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE	8270/BIS(2-ETHYLHEXYL) PHTHALATE	8270/DIBENZOFURAN				FINAL VACUUM	Remarks
S-VOC-A-040804			—	—	4/8/04	1120	4/8/04	1121			X	1	X		5507065				0	CANISTER #: 283
AS-VOC-B-040804			—	—	4/8/04	1015	4/8/04	1016			X	1	X		5507131				0	263
AS-SVOC-A-040804			—	—	4/8/04	1115	4/8/04	1215			X	1		X	X	5507164				FLOW RATE: 1 L/MIN
AS-SVOC-B-040804			—	—	4/8/04	1005	4/8/04	1105			X	1		X	X	5507172				1 L/MIN

D Soft 4/8/04

PLEASE FIND: 2 COOLERS

npler (signature): D Soft
Sampler (signature):
Custody Seal Number: 040804 PACE-001 THRU 040804 PACE-004 09:30
Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT

linquished By (signature): D Soft | Date/Time: 4/8/04 1430 | Received By (signature): [signature] | Date/Time: 4-9-04
Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt:

linquished By (signature): | Date/Time: | Received By (signature): [signature] | Date/Time:
Laboratory Comments: XAD tubes were received on ice. 4-9-04 RM 4-28-04

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RECEIVED
MAY 1 0 2004
Burns & McDonnell
Oak Brook, IL

May 07, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on April 16, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1087479
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105529416 ProjSampleNum: 1087479-001 Date Collected: 04/15/04 11:50
Client Sample ID: HAS-VOC-A-041504 Matrix: Air Date Received: 04/16/04 9:00

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	244	ug/m3	78	04/30/04 2:43 YA1	71-55-6	
1,1-Dichloroethane	ND	ug/m3	58	04/30/04 2:43 YA1	75-34-3	
2-Butanone (MEK)	ND	ug/m3	45	04/30/04 2:43 YA1	78-93-3	
Benzene	1010	ug/m3	45	04/30/04 2:43 YA1	71-43-2	
Carbon disulfide	ND	ug/m3	44	04/30/04 2:43 YA1	75-15-0	
Chloromethane	ND	ug/m3	29	04/30/04 2:43 YA1	74-87-3	
Ethylbenzene	6180	ug/m3	240	04/30/04 2:43 YA1	100-41-4	
m&p-Xylene	2600	ug/m3	120	04/30/04 2:43 YA1		
Naphthalene	8520	ug/m3	280	04/30/04 2:43 YA1	91-20-3	
o-Xylene	2070	ug/m3	62	04/30/04 2:43 YA1	95-47-6	
Styrene	ND	ug/m3	65	04/30/04 2:43 YA1	100-42-5	
Tetrachloroethene	ND	ug/m3	97	04/30/04 2:43 YA1	127-18-4	
Toluene	536	ug/m3	54	04/30/04 2:43 YA1	108-88-3	
Trichloroethene	ND	ug/m3	76	04/30/04 2:43 YA1	79-01-6	
Xylene (Total)	4860	ug/m3	180	04/30/04 2:43 YA1	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1087479
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105529424 ProjSampleNum: 1087479-002 Date Collected: 04/15/04 11:41
Client Sample ID: HAS-VOC-B-041504 Matrix: Air Date Received: 04/16/04 9:00

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	3.9	04/29/04 17:00 YA1	71-55-6	
1,1-Dichloroethane	ND	ug/m3	2.9	04/29/04 17:00 YA1	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.2	04/29/04 17:00 YA1	78-93-3	
Benzene	ND	ug/m3	2.3	04/29/04 17:00 YA1	71-43-2	
Carbon disulfide	ND	ug/m3	2.1	04/29/04 17:00 YA1	75-15-0	
Chloromethane	ND	ug/m3	1.4	04/29/04 17:00 YA1	74-87-3	
Ethylbenzene	ND	ug/m3	3.1	04/29/04 17:00 YA1	100-41-4	
m&p-Xylene	ND	ug/m3	5.7	04/29/04 17:00 YA1		
Naphthalene	6.92	ug/m3	3.6	04/29/04 17:00 YA1	91-20-3	
o-Xylene	ND	ug/m3	3.1	04/29/04 17:00 YA1	95-47-6	
Styrene	ND	ug/m3	3.2	04/29/04 17:00 YA1	100-42-5	
Tetrachloroethene	ND	ug/m3	4.8	04/29/04 17:00 YA1	127-18-4	
Toluene	ND	ug/m3	2.7	04/29/04 17:00 YA1	108-88-3	
Trichloroethene	ND	ug/m3	3.8	04/29/04 17:00 YA1	79-01-6	
Xylene (Total)	ND	ug/m3	8.8	04/29/04 17:00 YA1	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1087479
Project Name: Peoples Gas-Hawthorne Re

PARAMETER FOOTNOTES

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Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105529416
Client Sample ID: HAS-VOC-A-041504

Project Sample Number: 1087479-001
Matrix: Air

Date Collected: 04/15/04 11:50
Date Received: 04/16/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	14.	04/30/04 02:43	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	14.	04/30/04 02:43	YA1	75-34-3		
1,1,1-Trichloroethane	44.	ppbv	14.	04/30/04 02:43	YA1	71-55-6		
Benzene	310	ppbv	14.	04/30/04 02:43	YA1	71-43-2		
Trichloroethene	ND	ppbv	14.	04/30/04 02:43	YA1	79-01-6		
Toluene	140	ppbv	14.	04/30/04 02:43	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	14.	04/30/04 02:43	YA1	127-18-4		
Ethylbenzene	1400	ppbv	55.	04/30/04 02:43	YA1	100-41-4		
m&p-Xylene	590	ppbv	28.	04/30/04 02:43	YA1			
o-Xylene	470	ppbv	14.	04/30/04 02:43	YA1	95-47-6		
Styrene	ND	ppbv	15.	04/30/04 02:43	YA1	100-42-5		
2-Butanone (MEK)	ND	ppbv	15.	04/30/04 02:43	YA1	78-93-3		
Carbon disulfide	ND	ppbv	14.	04/30/04 02:43	YA1	75-15-0		
Naphthalene	1600	ppbv	52.	04/30/04 02:43	YA1	91-20-3		
Xylene (Total)	1100	ppbv	41.	04/30/04 02:43	YA1	1330-20-7		

Date: 05/07/04

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Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105529424
Client Sample ID: HAS-VOC-B-041504

Project Sample Number: 1087479-002
Matrix: Air

Date Collected: 04/15/04 11:41
Date Received: 04/16/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.67	04/29/04 17:00	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.70	04/29/04 17:00	YA1	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.70	04/29/04 17:00	YA1	71-55-6		
Benzene	ND	ppbv	0.70	04/29/04 17:00	YA1	71-43-2		
Trichloroethene	ND	ppbv	0.70	04/29/04 17:00	YA1	79-01-6		
Toluene	ND	ppbv	0.70	04/29/04 17:00	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	0.70	04/29/04 17:00	YA1	127-18-4		
Ethylbenzene	ND	ppbv	0.70	04/29/04 17:00	YA1	100-41-4		
m&p-Xylene	ND	ppbv	1.3	04/29/04 17:00	YA1			
o-Xylene	ND	ppbv	0.70	04/29/04 17:00	YA1	95-47-6		
Styrene	ND	ppbv	0.74	04/29/04 17:00	YA1	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.74	04/29/04 17:00	YA1	78-93-3		
Carbon disulfide	ND	ppbv	0.67	04/29/04 17:00	YA1	75-15-0		
Naphthalene	1.3	ppbv	0.67	04/29/04 17:00	YA1	91-20-3		
Xylene (Total)	ND	ppbv	2.0	04/29/04 17:00	YA1	1330-20-7		

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Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105529440
Client Sample ID: HAS-SVOC-A-041504

Project Sample Number: 1087479-003
Matrix: Air

Date Collected: 04/15/04 12:55
Date Received: 04/16/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	04/22/04 14:03	BJP	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	04/22/04 14:03	BJP	117-81-7		
Nitrobenzene-d5 (S)	120	%		04/22/04 14:03	BJP	4165-60-0		
2-Fluorobiphenyl (S)	129	%		04/22/04 14:03	BJP	321-60-8		
Terphenyl-d14 (S)	135	%		04/22/04 14:03	BJP	1718-51-0		
Date Extracted	04/16/04			04/16/04				

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Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105529457 | Project Sample Number: 1087479-004 | Date Collected: 04/15/04 11:45
Client Sample ID: HAS-SVOC-B-041504 | Matrix: Air | Date Received: 04/16/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	04/22/04 15:19	BJP	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	04/22/04 15:19	BJP	117-81-7		
Nitrobenzene-d5 (S)	128	%		04/22/04 15:19	BJP	4165-60-0		
2-Fluorobiphenyl (S)	137	%		04/22/04 15:19	BJP	321-60-8		
Terphenyl-d14 (S)	147	%		04/22/04 15:19	BJP	1718-51-0		
Date Extracted	04/16/04			04/16/04				

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Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 108209
QC Batch Method: TO-15
Associated Lab Samples: 105529416

Analysis Method: TO-15
Analysis Description: TO15

METHOD BLANK: 105579429
Associated Lab Samples: 105529416

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	

LABORATORY CONTROL SAMPLE: 105579437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	8.610	85	
1,1-Dichloroethane	ppbv	10.10	8.776	87	
1,1,1-Trichloroethane	ppbv	10.20	8.871	87	
Benzene	ppbv	10.20	12.60	124	
Trichloroethene	ppbv	10.30	9.316	90	
Toluene	ppbv	10.40	12.61	121	
Tetrachloroethene	ppbv	10.30	8.908	86	
Ethylbenzene	ppbv	10.40	9.238	89	
m&p-Xylene	ppbv	20.80	20.18	97	
o-Xylene	ppbv	10.40	9.274	89	
Styrene	ppbv	10.10	8.725	86	

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QUALITY CONTROL DATA

Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105579437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ppbv	10.20	8.850	87	
Carbon disulfide	ppbv	10.00	8.663	87	

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QUALITY CONTROL DATA

Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 108266 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105529424

METHOD BLANK: 105583553
Associated Lab Samples: 105529424

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	

LABORATORY CONTROL SAMPLE: 105583561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	9.837	97	
1,1-Dichloroethane	ppbv	10.10	10.37	103	
1,1,1-Trichloroethane	ppbv	10.20	10.56	103	
Benzene	ppbv	10.20	12.22	120	
Trichloroethene	ppbv	10.30	11.23	109	
Toluene	ppbv	10.40	11.94	115	
Tetrachloroethene	ppbv	10.30	10.30	100	
Ethylbenzene	ppbv	10.40	9.998	96	
m&p-Xylene	ppbv	20.80	21.08	101	
o-Xylene	ppbv	10.40	9.898	95	
Styrene	ppbv	10.10	10.37	103	

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QUALITY CONTROL DATA

Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105583561

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ppbv	10.20	10.34	101	
Carbon disulfide	ppbv	10.00	10.27	103	

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QUALITY CONTROL DATA

Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 107450 Analysis Method: EPA 8270
QC Batch Method: Analysis Description: Semivolatiles in Air
Associated Lab Samples: 105529440 105529457

METHOD BLANK: 105532303
Associated Lab Samples: 105529440 105529457

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Dibenzofuran	Total ug	ND	10.	
bis(2-Ethylhexyl)phthalate	Total ug	ND	10.	
Nitrobenzene-d5 (S)	%	101		
2-Fluorobiphenyl (S)	%	108		
Terphenyl-d14 (S)	%	113		

LABORATORY CONTROL SAMPLE & LCSD: 105532311 105532329

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Dibenzofuran	Total ug	200.00	284.1	264.8	142	132	7	
bis(2-Ethylhexyl)phthalate	Total ug	200.00	302.1	272.5	151	136	10	
Nitrobenzene-d5 (S)					104	95		
2-Fluorobiphenyl (S)					110	103		
Terphenyl-d14 (S)					117	107		

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Lab Project Number: 1087479
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record 1087479

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607 - 1700

Document Control No: HAS-008-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Point	Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth START (in feet) DLS: From	To	Sample END Collected DLS: Date	Time	Sample Type Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE	8270/BIS(2-ETHYLHEXYL)PHTHALATE	8270/DIBENZOFURAN			FINAL VACUUM	Remarks
HAS-VOC-A-041504			–	–	4/15/04	~~10~~ DLS 1150	4/15/04	1151			X	1	X	5529416				0	CANISTER #: 368
HAS-VOC-B-041504			–	–	4/15/04	1140	4/15/04	1141			X	1	X		↓		424	0	145
HAS-SVOC-A-041504			–	–	4/15/04	1155	4/15/04	1255			X	1		X	X		440		FLOW RATE: 1 L/MIN
HAS-SVOC-B-041504			–	–	4/15/04	1045	4/15/04	1145			X	1		X	X		457		1 L/MIN

4/15/04

PLEASE FIND:
1 BOX
1 COOLER

Sampler (signature): [signature]
Sampler (signature):
Custody Seal Number: 041504 PACE-001 THRU 041504 PACE-004
Special Instructions: *USE LIST OF PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT

Relinquished By (signature): 1. [signature] Date/Time 4/15/04 1330 Received By (signature): [signature] Date/Time 4-16-04 0900
Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt:

Relinquished By (signature): 2. Date/Time Received By (signature): Date/Time
Laboratory Comments: XAD tubes were received on ice 4-16-04

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Burns & McDonnell
Oak Brook, IL

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

May 19, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on April 23, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures revised report with m&p Xylene and o Xylene added. DKP 5/19/04

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Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105554901 | Project Sample Number: 1087891-001 | Date Collected: 04/22/04 12:21
Client Sample ID: HAS-VOC-A-042204 | Matrix: Air | Date Received: 04/23/04 10:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	55.	05/13/04 15:34	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	58.	05/13/04 15:34	YA1	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	58.	05/13/04 15:34	YA1	71-55-6		
Benzene	340	ppbv	58.	05/13/04 15:34	YA1	71-43-2		
Trichloroethene	ND	ppbv	58.	05/13/04 15:34	YA1	79-01-6		
Toluene	150	ppbv	58.	05/13/04 15:34	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	58.	05/13/04 15:34	YA1	127-18-4		
Ethylbenzene	940	ppbv	58.	05/13/04 15:34	YA1	100-41-4		
m&p-Xylene	730	ppbv	110	05/13/04 15:34	YA1			
o-Xylene	540	ppbv	58.	05/13/04 15:34	YA1	95-47-6		
Styrene	ND	ppbv	61.	05/13/04 15:34	YA1	100-42-5		
2-Butanone (MEK)	ND	ppbv	61. UJ	05/13/04 15:34	YA1	78-93-3		
Carbon disulfide	ND	ppbv	55.	05/13/04 15:34	YA1	75-15-0		
Naphthalene	300	ppbv	55.	05/13/04 15:34	YA1	91-20-3		
Xylene (Total)	1200	ppbv	170	05/13/04 15:34	YA1	1330-20-7		

UJ= Estimated non-detect; poor LCS recovery. SFA

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Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105554919
Client Sample ID: HAS-VOC-B-042204

Project Sample Number: 1087891-002
Matrix: Air

Date Collected: 04/22/04 11:46
Date Received: 04/23/04 10:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.65	05/13/04 16:56	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.68	05/13/04 16:56	YA1	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.68	05/13/04 16:56	YA1	71-55-6		
Benzene	2.6	ppbv	0.68	05/13/04 16:56	YA1	71-43-2		
Trichloroethene	ND	ppbv	0.68	05/13/04 16:56	YA1	79-01-6		
Toluene	1.3	ppbv	0.68	05/13/04 16:56	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	0.68	05/13/04 16:56	YA1	127-18-4		
Ethylbenzene	6.9	ppbv	0.68	05/13/04 16:56	YA1	100-41-4		
m&p-Xylene	6.6	ppbv	1.3	05/13/04 16:56	YA1			
o-Xylene	4.9	ppbv	0.68	05/13/04 16:56	YA1	95-47-6		
Styrene	ND	ppbv	0.72	05/13/04 16:56	YA1	100-42-5		
2-Butanone (MEK)	1.1 J	ppbv	0.72	05/13/04 16:56	YA1	78-93-3	1	
Carbon disulfide	1.2	ppbv	0.65	05/13/04 16:56	YA1	75-15-0		
Naphthalene	19.	ppbv	0.65	05/13/04 16:56	YA1	91-20-3		
Xylene (Total)	11.	ppbv	2.0	05/13/04 16:56	YA1	1330-20-7		

J = estimated value; poor LCS recovery. SFA

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Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105554927 | Project Sample Number: 1087891-003 | Date Collected: 04/22/04 12:30
Client Sample ID: HAS-SVOC-A-042204 | Matrix: Air | Date Received: 04/23/04 10:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	04/30/04 19:37	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	04/30/04 19:37	KSK	117-81-7		
Nitrobenzene-d5 (S)	88	%		04/30/04 19:37	KSK	4165-60-0		
2-Fluorobiphenyl (S)	104	%		04/30/04 19:37	KSK	321-60-8		
Terphenyl-d14 (S)	120	%		04/30/04 19:37	KSK	1718-51-0		
Date Extracted	04/30/04			04/30/04				

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Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105554935
Client Sample ID: HAS-SVOC-B-042204

Project Sample Number: 1087891-004
Matrix: Air

Date Collected: 04/22/04 12:10
Date Received: 04/23/04 10:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	04/30/04 20:16	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	04/30/04 20:16	KSK	117-81-7		
Nitrobenzene-d5 (S)	88	%		04/30/04 20:16	KSK	4165-60-0		
2-Fluorobiphenyl (S)	103	%		04/30/04 20:16	KSK	321-60-8		
Terphenyl-d14 (S)	121	%		04/30/04 20:16	KSK	1718-51-0		
Date Extracted	04/30/04			04/30/04				

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Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate
[1]	The continuing calibration for this compound was outside Pace Analytical acceptance limits.

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Fax: 612.607.6444

QUALITY CONTROL DATA

Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 109051 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105554901 105554919

METHOD BLANK: 105631980
Associated Lab Samples: 105554901 105554919

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105631998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	9.219	91	
1,1-Dichloroethane	ppbv	10.10	9.919	98	
1,1,1-Trichloroethane	ppbv	10.20	9.720	95	
Benzene	ppbv	10.20	7.684	75	
Trichloroethene	ppbv	10.30	10.41	101	
Toluene	ppbv	10.40	7.829	75	
Tetrachloroethene	ppbv	10.30	10.76	104	
Ethylbenzene	ppbv	10.40	9.102	88	
m&p-Xylene	ppbv	20.80	18.12	87	
o-Xylene	ppbv	10.40	8.748	84	

Date: 05/19/04

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Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105631998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.10	11.59	115	
2-Butanone (MEK)	ppbv	10.20	6.203	61	
Carbon disulfide	ppbv	10.00	9.584	96	

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QUALITY CONTROL DATA

Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 108228
QC Batch Method:
Associated Lab Samples: 105554927 105554935

Analysis Method: EPA 8270
Analysis Description: Semivolatiles in Air

METHOD BLANK: 105581102
Associated Lab Samples: 105554927 105554935

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Dibenzofuran	Total ug	ND	10.	
bis(2-Ethylhexyl)phthalate	Total ug	ND	10.	
Nitrobenzene-d5 (S)	%	87		
2-Fluorobiphenyl (S)	%	102		
Terphenyl-d14 (S)	%	116		

LABORATORY CONTROL SAMPLE & LCSD: 105581110 105581128

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Dibenzofuran	Total ug	200.00	178.2	172.6	89	86	3	
bis(2-Ethylhexyl)phthalate	Total ug	200.00	202.8	193.2	101	97	5	
Nitrobenzene-d5 (S)					84	77		
2-Fluorobiphenyl (S)					94	89		
Terphenyl-d14 (S)					111	106		

Date: 05/19/04

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Lab Project Number: 1087891
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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Burns & McDonnell
SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1087891

s & McDonnell Engineering
W. 22nd St
Brook, Illinois 60523
e: (630) 990-0300 Fax: (630) 990-0301
ition: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-009-2004
Lab. Reference No. or Episode No.:

ct Number: 29168
Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth (in feet)~~ START: From	Sample ~~Depth (in feet)~~ START: To	Sample ~~Collected~~ END: Date	Sample ~~Collected~~ END: Time	Sample Type / Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOC + NAPHTHALENE	8270/BIS(2-ETHYLHEXYL)PHTHALATE	8270/DIBENZOFURAN		FINAL VACUUM	Remarks
-VOC	-A-042204		-	-	4/22/04	1220	4/22/04	1221			X	1	X		5554	901	0	CANISTER #027
S-VOC	-B-042204		-	-	4/22/04	1145	4/22/04	1146			X	1	X		↓	919	0	460
-S-SVOC	-A-042204		-	-	4/22/04	1220	4/22/04	1230			X	1		X	X	927		FLOW RATE: 1 L/MIN
S-SVOC	-B-042204		-	-	4/22/04	1110	4/22/04	1210			X	1		X	X	935		1 L/MIN

4/22/04

PLEASE FIND
1 BOX
1 COOLER

pler (signature):	Sampler (signature):	Custody Seal Number 042204PACE-001 THRU 042204PACE-004	Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168. STANDARD TAT.
inquished By (signature):	Date/Time 4/22/04 1400	Received By (signature):	Date/Time 4-23-04 1000
inquished By (signature):	Date/Time	Received By (signature):	Date/Time

Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt:
Laboratory Comments: XAD tubes were received on ice 4-23-04

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RECEIVED
JUN 21 2004
Burns & McDonnell
Oak Brook, IL

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June 17, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on April 30, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures Corrected report m+p plus o xylene added DCP 6/17/04

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105580211 | Project Sample Number: 1088221-001 | Date Collected: 04/29/04 10:31
Client Sample ID: HAS-VOC-A-042904 | Matrix: Air | Date Received: 04/30/04 09:25

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	61.	05/13/04 16:14	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	64.	05/13/04 16:14	YA1	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	64.	05/13/04 16:14	YA1	71-55-6		
Benzene	ND	ppbv	64.	05/13/04 16:14	YA1	71-43-2		
Trichloroethene	ND	ppbv	64.	05/13/04 16:14	YA1	79-01-6		
Toluene	ND	ppbv	64.	05/13/04 16:14	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	64.	05/13/04 16:14	YA1	127-18-4		
Ethylbenzene	170 J	ppbv	64.	05/13/04 16:14	YA1	100-41-4	1,2	
m&p-Xylene	150 J	ppbv	120	05/13/04 16:14	YA1		1,2	
o-Xylene	120 J	ppbv	64.	05/13/04 16:14	YA1	95-47-6	1,2	
Styrene	ND	ppbv	67.	05/13/04 16:14	YA1	100-42-5		
2-Butanone (MEK)	ND	ppbv	67. UJ	05/13/04 16:14	YA1	78-93-3		
Carbon disulfide	ND	ppbv	61.	05/13/04 16:14	YA1	75-15-0		
Naphthalene	290 J	ppbv	61.	05/13/04 16:14	YA1	91-20-3	1,2	
Xylene (Total)	280 J	ppbv	180	05/13/04 16:14	YA1	1330-20-7	1,2	

J = estimated value; poor internal standard recovery - SFA
UJ = estimated non-detect value; poor LCS recovery

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Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105580229 | Project Sample Number: 1088221-002 | Date Collected: 04/29/04 09:11
Client Sample ID: HAS-VOC-B-042904 | Matrix: Air | Date Received: 04/30/04 09:25

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.74	05/13/04 17:38	YA1	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.77	05/13/04 17:38	YA1	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.77	05/13/04 17:38	YA1	71-55-6		
Benzene	ND	ppbv	0.77	05/13/04 17:38	YA1	71-43-2		
Trichloroethene	ND	ppbv	0.77	05/13/04 17:38	YA1	79-01-6		
Toluene	ND	ppbv	0.77	05/13/04 17:38	YA1	108-88-3		
Tetrachloroethene	ND	ppbv	0.77	05/13/04 17:38	YA1	127-18-4		
Ethylbenzene	0.78 J	ppbv	0.77	05/13/04 17:38	YA1	100-41-4	1,2	
m&p-Xylene	3.3 J	ppbv	1.5	05/13/04 17:38	YA1		1,2	
o-Xylene	1.1 J	ppbv	0.77	05/13/04 17:38	YA1	95-47-6	1,2	
Styrene	ND	ppbv	0.81	05/13/04 17:38	YA1	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.81 UJ	05/13/04 17:38	YA1	78-93-3		
Carbon disulfide	1.3	ppbv	0.74	05/13/04 17:38	YA1	75-15-0		
Naphthalene	1.9 J	ppbv	0.74	05/13/04 17:38	YA1	91-20-3	1,2	
Xylene (Total)	4.4 J	ppbv	2.2	05/13/04 17:38	YA1	1330-20-7	1,2	

J = estimated value; poor internal standard recovery. SFA
UJ = estimated non-detect value; poor LCS recovery. SFA

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Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105580237 | Project Sample Number: 1088221-003 | Date Collected: 04/29/04 10:30
Client Sample ID: HAS-SVOC-A-042904 | Matrix: Air | Date Received: 04/30/04 09:25

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	04/30/04 20:56	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	04/30/04 20:56	KSK	117-81-7		
Nitrobenzene-d5 (S)	88	%		04/30/04 20:56	KSK	4165-60-0		
2-Fluorobiphenyl (S)	103	%		04/30/04 20:56	KSK	321-60-8		
Terphenyl-d14 (S)	120	%		04/30/04 20:56	KSK	1718-51-0		
Date Extracted	04/30/04			04/30/04				

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Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105580245
Client Sample ID: HAS-SVOC-B-042904

Project Sample Number: 1088221-004
Matrix: Air

Date Collected: 04/29/04 09:25
Date Received: 04/30/04 09:25

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	05/03/04 09:58	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	05/03/04 09:58	KSK	117-81-7		
Nitrobenzene-d5 (S)	90	%		05/03/04 09:58	KSK	4165-60-0		
2-Fluorobiphenyl (S)	100	%		05/03/04 09:58	KSK	321-60-8		
Terphenyl-d14 (S)	117	%		05/03/04 09:58	KSK	1718-51-0		
Date Extracted	04/30/04			04/30/04				

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Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate
[1]	The IS response was below criteria. Results may be biased high.
[2]	Confirmed by second analysis.

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QUALITY CONTROL DATA

Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 109051 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105580211 105580229

METHOD BLANK: 105631980
Associated Lab Samples: 105580211 105580229

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105631998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	9.219	91	
1,1-Dichloroethane	ppbv	10.10	9.919	98	
1,1,1-Trichloroethane	ppbv	10.20	9.720	95	
Benzene	ppbv	10.20	7.684	75	
Trichloroethene	ppbv	10.30	10.41	101	
Toluene	ppbv	10.40	7.829	75	
Tetrachloroethene	ppbv	10.30	10.76	104	
Ethylbenzene	ppbv	10.40	9.102	88	
m&p-Xylene	ppbv	20.80	18.12	87	
o-Xylene	ppbv	10.40	8.748	84	

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QUALITY CONTROL DATA

Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105631998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.10	11.59	115	
2-Butanone (MEK)	ppbv	10.20	6.203	61	
Carbon disulfide	ppbv	10.00	9.584	96	

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QUALITY CONTROL DATA

Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 108228 Analysis Method: EPA 8270
QC Batch Method: Analysis Description: Semivolatiles in Air
Associated Lab Samples: 105580237 105580245

METHOD BLANK: 105581102
Associated Lab Samples: 105580237 105580245

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Dibenzofuran	Total ug	ND	10.	
bis(2-Ethylhexyl)phthalate	Total ug	ND	10.	
Nitrobenzene-d5 (S)	%	87		
2-Fluorobiphenyl (S)	%	102		
Terphenyl-d14 (S)	%	116		

LABORATORY CONTROL SAMPLE & LCSD: 105581110 105581128

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Dibenzofuran	Total ug	200.00	178.2	172.6	89	86	3	
bis(2-Ethylhexyl)phthalate	Total ug	200.00	202.8	193.2	101	97	5	
Nitrobenzene-d5 (S)					84	77		
2-Fluorobiphenyl (S)					94	89		
Terphenyl-d14 (S)					111	106		

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Lab Project Number: 1088221
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1088221
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105580211
Client Sample ID: HAS-VOC-A-042904

ProjSampleNum: 1088221-001
Matrix: Air

Date Collected: 04/29/04 10:31
Date Received: 04/30/04 9:25

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	350	05/13/04 16:14 YA1	71-55-6	
1,1-Dichloroethane	ND	ug/m3	260	05/13/04 16:14 YA1	75-34-3	
2-Butanone (MEK)	ND	ug/m3	200 UJ	05/13/04 16:14 YA1	78-93-3	
Benzene	ND	ug/m3	210	05/13/04 16:14 YA1	71-43-2	
Carbon disulfide	ND	ug/m3	190	05/13/04 16:14 YA1	75-15-0	
Chloromethane	ND	ug/m3	130	05/13/04 16:14 YA1	74-87-3	
Ethylbenzene	750 J	ug/m3	280	05/13/04 16:14 YA1	100-41-4	1,2
m&p-Xylene	662 J	ug/m3	530	05/13/04 16:14 YA1		1,2
Naphthalene	1540 J	ug/m3	320	05/13/04 16:14 YA1	91-20-3	1,2
o-Xylene	530 J	ug/m3	280	05/13/04 16:14 YA1	95-47-6	1,2
Styrene	ND	ug/m3	290	05/13/04 16:14 YA1	100-42-5	
Tetrachloroethene	ND	ug/m3	440	05/13/04 16:14 YA1	127-18-4	
Toluene	ND	ug/m3	250	05/13/04 16:14 YA1	108-88-3	
Trichloroethene	ND	ug/m3	350	05/13/04 16:14 YA1	79-01-6	
Xylene (Total)	1240 J	ug/m3	790	05/13/04 16:14 YA1	1330-20-7	1,2

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

J = estimated value; poor internal standard recovery. SFA
UJ = estimated non-detect value; poor LCS recovery SFA

Date: 6/17/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1088221
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105580229 ProjSampleNum: 1088221-002 Date Collected: 04/29/04 9:11
Client Sample ID: HAS-VOC-B-042904 Matrix: Air Date Received: 04/30/04 9:25

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.3	05/13/04 17:38 YA1	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.2	05/13/04 17:38 YA1	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.4 UJ	05/13/04 17:38 YA1	78-93-3	
Benzene	ND	ug/m3	2.5	05/13/04 17:38 YA1	71-43-2	
Carbon disulfide	4.12	ug/m3	2.3	05/13/04 17:38 YA1	75-15-0	
Chloromethane	ND	ug/m3	1.6	05/13/04 17:38 YA1	74-87-3	
Ethylbenzene	3.44 J	ug/m3	3.4	05/13/04 17:38 YA1	100-41-4	1,2
m&p-Xylene	14.6 J	ug/m3	6.6	05/13/04 17:38 YA1		1,2
Naphthalene	10.1 J	ug/m3	3.9	05/13/04 17:38 YA1	91-20-3	1,2
o-Xylene	4.86 J	ug/m3	3.4	05/13/04 17:38 YA1	95-47-6	1,2
Styrene	ND	ug/m3	3.5	05/13/04 17:38 YA1	100-42-5	
Tetrachloroethene	ND	ug/m3	5.3	05/13/04 17:38 YA1	127-18-4	
Toluene	ND	ug/m3	2.9	05/13/04 17:38 YA1	108-88-3	
Trichloroethene	ND	ug/m3	4.2	05/13/04 17:38 YA1	79-01-6	
Xylene (Total)	19.4 J	ug/m3	9.7	05/13/04 17:38 YA1	1330-20-7	1,2

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

J = estimated value; poor internal standard recovery. SFA
UJ = estimated non-detect value; poor LCS recovery. SFA

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1088221

s & McDonnell Engineering
W. 22nd St
Brook, Illinois 60523
e: (630) 990-0300 Fax: (630) 990-0301
ation: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-010-2004
Lab. Reference No. or Episode No.:

ect Number: 29168
Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: up or J Name	Sample Point	Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth~~ START ~~(in feet)~~ DUS: ~~From~~ DATE	~~To~~ DUS TIME	Sample END ~~Collected~~ DUS: Date	Time	Sample Type Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE	8270/Bis(2-Ethylhexyl)phthalate	8270/Dibenzofuran				Final Vacuum	Remarks
S-VOC-A-042904			—	—	4/29/04	1030	4/29/04	1031			X	1	X			5580211			0	CANISTER #
S-VOC-B-042904			—	—	4/29/04	0910	4/29/04	0911			X	1	X				229		0	
S-SVOC-A-042904			—	-	4/29/04	0930 ~~0825~~ DUS	4/29/04	1030			X	1		X	X		227			FLOW RATE 1 L/MIN
S-SVOC-B-042904			—	—	4/29/04	0825	4/29/04	0925			X	1		X	X		245			1 L/MIN

4/29/04

PLEASE FIND:
1 BOX
1 COOLER

2.5°C

pler (signature): [signature]

Sampler (signature):

Custody Seal Number: 042904 PACE-001 THRU 042904 PACE-004

Special Instructions: * ANALYZE FOR LIST OF PARAMETERS IN WORK ORDER #29168. STANDARD TAT

inquished By (signature): [signature] Date/Time: 4/29/04 1100 Received By (signature): [signature] PACE Date/Time: 4-30-04 09:25

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt:

inquished By (signature): Date/Time: Received By (signature): Date/Time:

Laboratory Comments:

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RECEIVED
MAY 24 2004
Burns & McDonnell
Oak Brook, IL

May 20, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on May 7, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1088568
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105606479 ProjSampleNum: 1088568-001 Date Collected: 05/06/04 10:26
Client Sample ID: HAS-VOC-A-050604 Matrix: Air Date Received: 05/07/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	216	ug/m3	43	05/18/04 18:40 MTG	71-55-6	
1,1-Dichloroethane	5.35	ug/m3	3.2	05/18/04 18:40 MTG	75-34-3	
2-Butanone (MEK)	3.6	ug/m3	2.4	05/18/04 18:40 MTG	78-93-3	
Benzene	114	ug/m3	25	05/18/04 18:40 MTG	71-43-2	
Carbon disulfide	5.38	ug/m3	2.3	05/18/04 18:40 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	05/18/04 18:40 MTG	74-87-3	
Ethylbenzene	335	ug/m3	34	05/18/04 18:40 MTG	100-41-4	
m&p-Xylene	260	ug/m3	66	05/18/04 18:40 MTG		
Naphthalene	2020	ug/m3	96	05/18/04 18:40 MTG	91-20-3	
o-Xylene	230	ug/m3	34	05/18/04 18:40 MTG	95-47-6	
Styrene	ND	ug/m3	3.5	05/18/04 18:40 MTG	100-42-5	
Tetrachloroethene	19.3	ug/m3	5.3	05/18/04 18:40 MTG	127-18-4	
Toluene	69	ug/m3	2.9	05/18/04 18:40 MTG	108-88-3	
Trichloroethene	45.3	ug/m3	4.2	05/18/04 18:40 MTG	79-01-6	
Xylene (Total)	486	ug/m3	97	05/18/04 18:40 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 5/21/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1088568
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105606487 ProjSampleNum: 1088568-002 Date Collected: 05/06/04 11:31
Client Sample ID: HAS-VOC-B-050604 Matrix: Air Date Received: 05/07/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.4	05/19/04 18:03 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.3	05/19/04 18:03 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.5	05/19/04 18:03 MTG	78-93-3	
Benzene	ND	ug/m3	2.6	05/19/04 18:03 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.4	05/19/04 18:03 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	05/19/04 18:03 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.5	05/19/04 18:03 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.6	05/19/04 18:03 MTG		
Naphthalene	1490	ug/m3	41	05/19/04 18:03 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.5	05/19/04 18:03 MTG	95-47-6	
Styrene	ND	ug/m3	3.7	05/19/04 18:03 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.5	05/19/04 18:03 MTG	127-18-4	
Toluene	ND	ug/m3	3.1	05/19/04 18:03 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.4	05/19/04 18:03 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	10	05/19/04 18:03 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105606479
Client Sample ID: HAS-VOC-A-050604

Project Sample Number: 1088568-001
Matrix: Air

Date Collected: 05/06/04 10:26
Date Received: 05/07/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.74	05/18/04 18:40	MTG	74-87-3		
1,1-Dichloroethane	1.3	ppbv	0.77	05/18/04 18:40	MTG	75-34-3		
1,1,1-Trichloroethane	39.	ppbv	7.7	05/18/04 18:40	MTG	71-55-6		
Benzene	35.	ppbv	7.7	05/18/04 18:40	MTG	71-43-2		
Trichloroethene	8.3	ppbv	0.77	05/18/04 18:40	MTG	79-01-6		
Toluene	18.	ppbv	0.77	05/18/04 18:40	MTG	108-88-3		
Tetrachloroethene	2.8	ppbv	0.77	05/18/04 18:40	MTG	127-18-4		
Ethylbenzene	76.	ppbv	7.7	05/18/04 18:40	MTG	100-41-4		
m&p-Xylene	59.	ppbv	15.	05/18/04 18:40	MTG			
o-Xylene	52.	ppbv	7.7	05/18/04 18:40	MTG	95-47-6		
Styrene	ND	ppbv	0.81	05/18/04 18:40	MTG	100-42-5		
2-Butanone (MEK)	1.2	ppbv	0.81	05/18/04 18:40	MTG	78-93-3		
Carbon disulfide	1.7	ppbv	0.74	05/18/04 18:40	MTG	75-15-0		
Naphthalene	380	ppbv	18.	05/18/04 18:40	MTG	91-20-3		
Xylene (Total)	110	ppbv	22.	05/18/04 18:40	MTG	1330-20-7		

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Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105606487
Client Sample ID: HAS-VOC-B-050604

Project Sample Number: 1088568-002
Matrix: Air

Date Collected: 05/06/04 11:31
Date Received: 05/07/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.77	05/19/04 18:03	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.80	05/19/04 18:03	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.80	05/19/04 18:03	MTG	71-55-6		
Benzene	ND	ppbv	0.80	05/19/04 18:03	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.80	05/19/04 18:03	MTG	79-01-6		
Toluene	ND	ppbv	0.80	05/19/04 18:03	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.80	05/19/04 18:03	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.80	05/19/04 18:03	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.5	05/19/04 18:03	MTG			
o-Xylene	ND	ppbv	0.80	05/19/04 18:03	MTG	95-47-6		
Styrene	ND	ppbv	0.85	05/19/04 18:03	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.85	05/19/04 18:03	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.77	05/19/04 18:03	MTG	75-15-0		
Naphthalene	280	ppbv	7.7	05/19/04 18:03	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.3	05/19/04 18:03	MTG	1330-20-7		

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Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105606495 | Project Sample Number: 1088568-003 | Date Collected: 05/06/04 11:15
Client Sample ID: HAS-SVOC-A-050604 | Matrix: Air | Date Received: 05/07/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	05/17/04 23:49	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	05/17/04 23:49	KSK	117-81-7		
Nitrobenzene-d5 (S)	87	%		05/17/04 23:49	KSK	4165-60-0		
2-Fluorobiphenyl (S)	85	%		05/17/04 23:49	KSK	321-60-8		
Terphenyl-d14 (S)	88	%		05/17/04 23:49	KSK	1718-51-0		
Date Extracted	05/10/04			05/10/04				

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Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105606503 | Project Sample Number: 1088568-004 | Date Collected: 05/06/04 12:15
Client Sample ID: HAS-SVOC-B-050604 | Matrix: Air | Date Received: 05/07/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	05/18/04 13:39	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	05/18/04 13:39	KSK	117-81-7		
Nitrobenzene-d5 (S)	98	%		05/18/04 13:39	KSK	4165-60-0		
2-Fluorobiphenyl (S)	82	%		05/18/04 13:39	KSK	321-60-8		
Terphenyl-d14 (S)	104	%		05/18/04 13:39	KSK	1718-51-0		
Date Extracted	05/10/04			05/10/04				

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Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 109298
QC Batch Method: TO-15
Associated Lab Samples: 105606479

Analysis Method: TO-15
Analysis Description: TO15

METHOD BLANK: 105645519
Associated Lab Samples: 105606479

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105645527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	7.857	78	
1,1-Dichloroethane	ppbv	10.60	9.740	92	
1,1,1-Trichloroethane	ppbv	10.50	11.95	114	
Benzene	ppbv	10.70	12.10	113	
Trichloroethene	ppbv	10.40	12.10	116	
Toluene	ppbv	10.60	12.32	116	
Tetrachloroethene	ppbv	10.40	10.32	99	
Ethylbenzene	ppbv	10.50	9.873	94	
m&p-Xylene	ppbv	21.00	20.78	99	
o-Xylene	ppbv	10.50	11.07	105	

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QUALITY CONTROL DATA

Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105645527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	11.32	108	
2-Butanone (MEK)	ppbv	10.50	9.912	94	
Carbon disulfide	ppbv	10.00	11.24	112	
Naphthalene	ppbv	10.00	10.09	101	

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QUALITY CONTROL DATA

Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 109392
QC Batch Method: TO-15
Associated Lab Samples: 105606487

Analysis Method: TO-15
Analysis Description: TO15

METHOD BLANK: 105650022
Associated Lab Samples: 105606487

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105650030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	9.008	89	
1,1-Dichloroethane	ppbv	10.60	10.13	96	
1,1,1-Trichloroethane	ppbv	10.50	9.518	91	
Benzene	ppbv	10.70	10.96	102	
Trichloroethene	ppbv	10.40	11.06	106	
Toluene	ppbv	10.60	11.05	104	
Tetrachloroethene	ppbv	10.40	12.02	116	
Ethylbenzene	ppbv	10.50	11.45	109	
m&p-Xylene	ppbv	21.00	22.03	105	
o-Xylene	ppbv	10.50	11.02	105	

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QUALITY CONTROL DATA

Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105650030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	11.38	108	
2-Butanone (MEK)	ppbv	10.50	10.83	103	
Carbon disulfide	ppbv	10.00	10.32	103	
Naphthalene	ppbv	10.00	11.71	117	

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QUALITY CONTROL DATA

Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 108732 Analysis Method: EPA 8270
QC Batch Method: Analysis Description: Semivolatiles in Air
Associated Lab Samples: 105606495 105606503

METHOD BLANK: 105613665
Associated Lab Samples: 105606495 105606503

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Dibenzofuran	Total ug	ND	10.	
bis(2-Ethylhexyl)phthalate	Total ug	ND	10.	
Nitrobenzene-d5 (S)	%	90		
2-Fluorobiphenyl (S)	%	88		
Terphenyl-d14 (S)	%	94		

LABORATORY CONTROL SAMPLE: 105613673

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Dibenzofuran	Total ug	200.00	174.3	87	
bis(2-Ethylhexyl)phthalate	Total ug	200.00	187.0	94	
Nitrobenzene-d5 (S)				89	
2-Fluorobiphenyl (S)				82	
Terphenyl-d14 (S)				87	

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Lab Project Number: 1088568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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Request for Chemical Analysis and Chain of Custody Record

1088568

ns & McDonnell Engineering
)1 W. 22nd St
k Brook, Illinois 60523
one: (630) 990-0300 Fax: (630) 990-0301

ention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-012-2004
Lab. Reference No. or Episode No.:

ject Number: 29168
e Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: roup or MU Name	Sample Point	Sample Designator	Sample Event: Round	Year	Sample ~~Depth~~ START ~~(in feet)~~ DUS: ~~From~~ DATE	~~To~~ TIME	Sample END ~~Collected~~ DUS: Date	Time	Sample Type: Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE	8270/BIS(2-ETHYLHEXYL)PHTHALATE	8270/DIBENZOFURAN				FINAL VACUUM	Remarks
AS-VOC-A-050604			-	-	5/6/04	1025	5/6/04	1026			X	1	X		5	6	0	6	479	0	CANISTER #: 555
AS-VOC-B-050604			-	-	5/6/04	1130	5/6/04	1131			X	1	X			✓		487	0	494
AS-SVOC-A-050604			-	-	5/6/04	1015	5/6/04	1115			X	1		X	X	5	6	0	6	495	FLOW RATE: 1 L/MIN
AS-SVOC-B-050604			-	-	5/6/04	1115	5/6/04	1215			X	1		X	X	5	6	0	6	503	1 L/MIN

5/6/04

PLEASE FIND:
1 BOX
1 COOLER

mpler (signature): [signature]
Sampler (signature):
Custody Seal Number: 050604 PACE-001 THRU 050604 PACE-004
Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168. STANDARD TAT!

elinquished By (signature): [signature] Date/Time: 5/6/04 1400 Received By (signature): [signature] T=13.0 Date/Time: 5-7-04 0930
Ice Present in Container: Yes ☒ No ☐
Temperature Upon Receipt:

elinquished By (signature): Date/Time: Received By (signature): Date/Time:
Laboratory Comments:

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November 12, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137

Wisconsin Certification #: 9999407970

Illinois Certification #: 200011

Enclosures

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Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105631550 | Project Sample Number: 1088944-001 | Date Collected: 05/13/04 10:00
Client Sample ID: HAS-VOC-A-051304 | Matrix: Air | Date Received: 05/14/04 09:05

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	14.	05/27/04 22:11	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	15.	05/27/04 22:11	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	15.	05/27/04 22:11	MTG	71-55-6		
Benzene	ND	ppbv	15.	05/27/04 22:11	MTG	71-43-2		
Trichloroethene	ND	ppbv	15.	05/27/04 22:11	MTG	79-01-6		
Toluene	36.	ppbv	15.	05/27/04 22:11	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	15.	05/27/04 22:11	MTG	127-18-4		
Ethylbenzene	43.	ppbv	15.	05/27/04 22:11	MTG	100-41-4		
m&p-Xylene	170	ppbv	29.	05/27/04 22:11	MTG			
o-Xylene	88.	ppbv	15.	05/27/04 22:11	MTG	95-47-6		
Styrene	ND	ppbv	16.	05/27/04 22:11	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	16.	05/27/04 22:11	MTG	78-93-3		
Carbon disulfide	ND	ppbv	14.	05/27/04 22:11	MTG	75-15-0		
Naphthalene	280	ppbv	110	05/27/04 22:11	MTG	91-20-3		
Xylene (Total)	250	ppbv	43.	05/27/04 22:11	MTG	1330-20-7		

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Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105631618
Client Sample ID: HAS-VOC-B-051304

Project Sample Number: 1088944-002
Matrix: Air

Date Collected: 05/13/04 11:21
Date Received: 05/14/04 09:05

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	ReqLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.72	05/22/04 00:21	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.74	05/22/04 00:21	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.74	05/22/04 00:21	MTG	71-55-6		
Benzene	ND	ppbv	0.74	05/22/04 00:21	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.74	05/22/04 00:21	MTG	79-01-6		
Toluene	ND	ppbv	0.74	05/22/04 00:21	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.74	05/22/04 00:21	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.74	05/22/04 00:21	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.4	05/22/04 00:21	MTG			
o-Xylene	ND	ppbv	0.74	05/22/04 00:21	MTG	95-47-6		
Styrene	ND	ppbv	0.79	05/22/04 00:21	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.79	05/22/04 00:21	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.72	05/22/04 00:21	MTG	75-15-0		
Naphthalene	10.	ppbv	0.72	05/22/04 00:21	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.1	05/22/04 00:21	MTG	1330-20-7		

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Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105631691 Project Sample Number: 1088944-003 Date Collected: 05/13/04 10:50
Client Sample ID: HAS-SVOC-A-051304 Matrix: Air Date Received: 05/14/04 09:05

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	05/19/04 19:46	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	05/19/04 19:46	KSK	117-81-7		
Nitrobenzene-d5 (S)	96	%		05/19/04 19:46	KSK	4165-60-0		
2-Fluorobiphenyl (S)	94	%		05/19/04 19:46	KSK	321-60-8		
Terphenyl-d14 (S)	89	%		05/19/04 19:46	KSK	1718-51-0		
Date Extracted	05/19/04			05/19/04				

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Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105631709
Client Sample ID: HAS-SVOC-B-051304

Project Sample Number: 1088944-004
Matrix: Air

Date Collected: 05/13/04 11:55
Date Received: 05/14/04 09:05

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	05/19/04 20:24	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	05/19/04 20:24	KSK	117-81-7		
Nitrobenzene-d5 (S)	96	%		05/19/04 20:24	KSK	4165-60-0		
2-Fluorobiphenyl (S)	91	%		05/19/04 20:24	KSK	321-60-8		
Terphenyl-d14 (S)	87	%		05/19/04 20:24	KSK	1718-51-0		
Date Extracted	05/19/04			05/19/04				

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Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 109582 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105631618

METHOD BLANK: 105663314
Associated Lab Samples: 105631618

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105663322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	11.70	116	
1,1-Dichloroethane	ppbv	10.60	12.41	117	
1,1,1-Trichloroethane	ppbv	10.50	12.98	124	
Benzene	ppbv	10.70	12.83	120	
Trichloroethene	ppbv	10.40	12.46	120	
Toluene	ppbv	10.60	12.73	120	
Tetrachloroethene	ppbv	10.40	12.80	123	
Ethylbenzene	ppbv	10.50	12.90	123	
m&p-Xylene	ppbv	21.00	26.22	125	
o-Xylene	ppbv	10.50	12.28	117	

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QUALITY CONTROL DATA

Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105663322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	12.36	118	
2-Butanone (MEK)	ppbv	10.50	11.00	105	
Carbon disulfide	ppbv	10.00	11.64	116	
Naphthalene	ppbv	10.00	8.045	80	

SAMPLE DUPLICATE: 105663330

Parameter	Units	105646319 Result	DUP Result	RPD	Footnotes
Chloromethane	ppbv	ND	ND	NC	
1,1-Dichloroethane	ppbv	ND	ND	NC	
1,1,1-Trichloroethane	ppbv	ND	ND	NC	
Benzene	ppbv	ND	ND	NC	
Trichloroethene	ppbv	ND	ND	NC	
Toluene	ppbv	ND	ND	NC	
Tetrachloroethene	ppbv	ND	ND	NC	
Ethylbenzene	ppbv	ND	ND	NC	
m&p-Xylene	ppbv	ND	ND	NC	
o-Xylene	ppbv	ND	ND	NC	
Styrene	ppbv	ND	ND	NC	
2-Butanone (MEK)	ppbv	ND	ND	NC	
Carbon disulfide	ppbv	ND	ND	NC	
Naphthalene	ppbv	ND	ND	NC	
Xylene (Total)	ppbv	ND	ND	NC	

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QUALITY CONTROL DATA

Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 109906 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105631550

METHOD BLANK: 105680680
Associated Lab Samples: 105631550

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105680714

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	11.40	113	
1,1-Dichloroethane	ppbv	10.60	12.15	115	
1,1,1-Trichloroethane	ppbv	10.50	12.08	115	
Benzene	ppbv	10.70	13.43	126	
Trichloroethene	ppbv	10.40	13.51	130	
Toluene	ppbv	10.60	13.09	124	
Tetrachloroethene	ppbv	10.40	12.30	118	
Ethylbenzene	ppbv	10.60	10.82	102	
m&p-Xylene	ppbv	21.00	23.17	110	
o-Xylene	ppbv	10.50	11.78	112	

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QUALITY CONTROL DATA

Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105680714

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	9.472	90	
2-Butanone (MEK)	ppbv	10.50	12.94	123	
Carbon disulfide	ppbv	10.00	12.86	129	
Naphthalene	ppbv	10.00	8.759	88	

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QUALITY CONTROL DATA

Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 109326 Analysis Method: EPA 8270
QC Batch Method: Analysis Description: Semivolatiles in Air
Associated Lab Samples: 105631691 105631709

METHOD BLANK: 105646715
Associated Lab Samples: 105631691 105631709

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Dibenzofuran	Total ug	ND	10.	
bis(2-Ethylhexyl)phthalate	Total ug	ND	10.	
Nitrobenzene-d5 (S)	%	95		
2-Fluorobiphenyl (S)	%	92		
Terphenyl-d14 (S)	%	86		

LABORATORY CONTROL SAMPLE: 105646723

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Dibenzofuran	Total ug	200.00	183.8	92	
bis(2-Ethylhexyl)phthalate	Total ug	200.00	171.6	86	
Nitrobenzene-d5 (S)				86	
2-Fluorobiphenyl (S)				86	
Terphenyl-d14 (S)				82	

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Lab Project Number: 1088944
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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Request for Chemical Analysis and Chain of Custody Record

1088944

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one: (630) 990-0300 Fax: (630) 990-0301

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE-SUITE 200
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Telephone: (612) 607-1700

Document Control No: HAS-013-2004
Lab. Reference No. or Episode No.:

Attention: JOAN GONZALEZ

Project Number: 29168

Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Group or SMU Name	Sample Point	Sample Designator	Sample Event Round	Sample Event Year	Sample Depth Start (in feet) ~~From~~ DATE	Sample Depth End ~~To~~ TIME	Sample Collected Date	Sample Collected Time	Sample Type Matrix Liquid	Solid	Gas	Number of Containers	Parameter/Method Code TO-15/VOCs * + NAPHTHALENE	8270/BIS(2-ETHYLHEXYL)PHTHALATE	8270/DIBENZOFURAN	FINAL VACUUM	Remarks
AS-VOC-A-051304			—	—	5/13/04	1000	5/13/04	1001			X	1	X	563/550		0	CANISTER # 118
AS-VOC-B-051304			—	—	5/13/04	1120	5/13/04	1121			X	1	X	↓	618	0	95
AS-SVOC-A-051304			—	—	5/13/04	0950	5/13/04	1050			X	1		X X	563/691		FLOW RATE: 1 L/MIN
AS-SVOC-B-051304			—	—	5/13/04	1055	5/13/04	1155			X	1		X X	↓ 709		1 L/MIN

5/13/04

PLEASE FIND:
1 BOX
1 COOLER

T=1.0°C

Sampler (signature): [signature]

Sampler (signature):

Custody Seal Number
051304PACE-001
THRU 051304PACE-004

Special Instructions: * ANALYZE FOR LIST OF PARAMETERS IN WORK ORDER # 29168.
STANDARD TAT.

Relinquished By (signature): [signature]
Date/Time 5/13/04 1400
Received By (signature): [signature] PACE
Date/Time 5-14-04 09:05

Relinquished By (signature):
Date/Time
Received By (signature):
Date/Time

Ice Present in Container: Yes ☒ No ☐

Temperature Upon Receipt:

Laboratory Comments:

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RECEIVED
JUN 1 0 2004
Burns & McDonnell
Oak Brook, IL

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Phone: 612.607.1700
Fax: 612.607.6444

June 07, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on May 21, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson for
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

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Fax: 612.607.6444

Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105657100 | Project Sample Number: 1089265-001 | Date Collected: 05/20/04 11:31
Client Sample ID: HAS-VOC-A-052004 | Matrix: Air | Date Received: 05/21/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
T015	Method: TO-15							
Chloromethane	ND	ppbv	0.80	06/03/04 22:29	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.83	06/03/04 22:29	MTG	75-34-3		
1,1,1-Trichloroethane	20.	ppbv	0.83	06/03/04 22:29	MTG	71-55-6		
Benzene	ND	ppbv	17.	06/03/04 22:29	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.83	06/03/04 22:29	MTG	79-01-6		
Toluene	13.	ppbv	0.83	06/03/04 22:29	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.83	06/03/04 22:29	MTG	127-18-4		
Ethylbenzene	20.	ppbv	17.	06/03/04 22:29	MTG	100-41-4		
m&p-Xylene	ND	ppbv	32.	06/03/04 22:29	MTG			
o-Xylene	ND	ppbv	17.	06/03/04 22:29	MTG	95-47-6		
Styrene	ND	ppbv	0.87	06/03/04 22:29	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.87	06/03/04 22:29	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.80	06/03/04 22:29	MTG	75-15-0		
Naphthalene	310	ppbv	16.	06/03/04 22:29	MTG	91-20-3		
Xylene (Total)	ND	ppbv	48.	06/03/04 22:29	MTG	1330-20-7		

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Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105657134 | Project Sample Number: 1089265-002 | Date Collected: 05/20/04 10:41
Client Sample ID: HAS-VOC-B-052004 | Matrix: Air | Date Received: 05/21/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.77	05/24/04 19:11	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.80	05/24/04 19:11	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.80	05/24/04 19:11	MTG	71-55-6		
Benzene	ND	ppbv	0.80	05/24/04 19:11	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.80	05/24/04 19:11	MTG	79-01-6		
Toluene	ND	ppbv	0.80	05/24/04 19:11	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.80	05/24/04 19:11	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.80	05/24/04 19:11	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.5	05/24/04 19:11	MTG			
o-Xylene	ND	ppbv	0.80	05/24/04 19:11	MTG	95-47-6		
Styrene	ND	ppbv	0.85	05/24/04 19:11	MTG	100-42-5		
2-Butanone (MEK)	1.4	ppbv	0.85	05/24/04 19:11	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.77	05/24/04 19:11	MTG	75-15-0		
Naphthalene	22.	ppbv	0.77	05/24/04 19:11	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.3	05/24/04 19:11	MTG	1330-20-7		

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Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105657142 | Project Sample Number: 1089265-003 | Date Collected: 05/20/04 12:15
Client Sample ID: HAS-SVOC-A-052004 | Matrix: Air | Date Received: 05/21/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	06/04/04 14:26	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	06/04/04 14:26	KSK	117-81-7		
Nitrobenzene-d5 (S)	103	%		06/04/04 14:26	KSK	4165-60-0		
2-Fluorobiphenyl (S)	172	%		06/04/04 14:26	KSK	321-60-8	1	
Terphenyl-d14 (S)	115	%		06/04/04 14:26	KSK	1718-51-0		
Date Extracted	06/03/04			06/03/04				

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Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105657159
Client Sample ID: HAS-SVOC-B-052004

Project Sample Number: 1089265-004
Matrix: Air

Date Collected: 05/20/04 11:10
Date Received: 05/21/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	06/04/04 15:08	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	06/04/04 15:08	KSK	117-81-7		
Nitrobenzene-d5 (S)	99	%		06/04/04 15:08	KSK	4165-60-0		
2-Fluorobiphenyl (S)	167	%		06/04/04 15:08	KSK	321-60-8	1	
Terphenyl-d14 (S)	107	%		06/04/04 15:08	KSK	1718-51-0		
Date Extracted	06/03/04			06/03/04				

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Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate
[1]	The surrogate recovery was outside of acceptance limits.

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QUALITY CONTROL DATA

Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 109652
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15
Associated Lab Samples: 105657134

METHOD BLANK: 105665947
Associated Lab Samples: 105657134

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105665954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	9.423	93	
1,1-Dichloroethane	ppbv	10.60	10.64	100	
1,1,1-Trichloroethane	ppbv	10.50	10.45	100	
Benzene	ppbv	10.70	11.53	108	
Trichloroethene	ppbv	10.40	12.29	118	
Toluene	ppbv	10.60	11.93	113	
Tetrachloroethene	ppbv	10.40	12.59	121	
Ethylbenzene	ppbv	10.60	13.45	127	
m&p-Xylene	ppbv	21.00	25.32	121	
o-Xylene	ppbv	10.50	12.43	118	

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QUALITY CONTROL DATA

Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105665954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	13.45	128	
2-Butanone (MEK)	ppbv	10.50	10.77	103	
Carbon disulfide	ppbv	10.00	11.08	111	
Naphthalene	ppbv	10.00	10.04	100	

SAMPLE DUPLICATE: 105665962

Parameter	Units	105650378 Result	DUP Result	RPD	Footnotes
Chloromethane	ppbv	ND	ND	NC	
1,1-Dichloroethane	ppbv	ND	ND	NC	
1,1,1-Trichloroethane	ppbv	ND	ND	NC	
Benzene	ppbv	ND	ND	NC	
Trichloroethene	ppbv	ND	ND	NC	
Toluene	ppbv	ND	ND	NC	
Tetrachloroethene	ppbv	ND	ND	NC	
Ethylbenzene	ppbv	ND	ND	NC	
m&p-Xylene	ppbv	ND	ND	NC	
o-Xylene	ppbv	ND	ND	NC	
Styrene	ppbv	ND	ND	NC	
2-Butanone (MEK)	ppbv	1.700	1.600	5	
Carbon disulfide	ppbv	ND	ND	NC	
Naphthalene	ppbv	ND	ND	NC	
Xylene (Total)	ppbv	ND	ND	NC	

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QUALITY CONTROL DATA

Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 110227 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105657100

METHOD BLANK: 105701981
Associated Lab Samples: 105657100

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105701999

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	11.61	115	
1,1-Dichloroethane	ppbv	10.60	12.38	117	
1,1,1-Trichloroethane	ppbv	10.50	12.36	118	
Benzene	ppbv	10.70	12.40	116	
Trichloroethene	ppbv	10.40	11.70	112	
Toluene	ppbv	10.60	10.87	103	
Tetrachloroethene	ppbv	10.40	11.91	115	
Ethylbenzene	ppbv	10.60	11.48	108	
m&p-Xylene	ppbv	21.00	23.19	110	
o-Xylene	ppbv	10.50	11.50	109	

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QUALITY CONTROL DATA

Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105701999

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	12.35	118	
2-Butanone (MEK)	ppbv	10.50	8.827	84	
Carbon disulfide	ppbv	10.00	11.65	116	
Naphthalene	ppbv	10.00	9.621	96	

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QUALITY CONTROL DATA

Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 110196 Analysis Method: EPA 8270
QC Batch Method: Analysis Description: Semivolatiles in Air
Associated Lab Samples: 105657142 105657159

METHOD BLANK: 105699003
Associated Lab Samples: 105657142 105657159

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Dibenzofuran	Total ug	ND	10.	
bis(2-Ethylhexyl)phthalate	Total ug	ND	10.	
Nitrobenzene-d5 (S)	%	96		
2-Fluorobiphenyl (S)	%	161		1
Terphenyl-d14 (S)	%	105		

LABORATORY CONTROL SAMPLE & LCSD: 105699011 105699029

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Dibenzofuran	Total ug	200.00	194.9	235.8	97	118	19	
bis(2-Ethylhexyl)phthalate	Total ug	200.00	198.0	228.8	99	114	14	
Nitrobenzene-d5 (S)					84	97		
2-Fluorobiphenyl (S)					119	114		
Terphenyl-d14 (S)					86	98		

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Lab Project Number: 1089265
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate
[1]	The surrogate recovery was outside of acceptance limits.

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1089265
Project Name: Peoples Gas-Hawthorne Reg.

Lab Sample No: 105657100 | ProjSampleNum: 1089265-001 | Date Collected: 05/20/04 11:31
Client Sample ID: HAS-VOC-A-052004 | Matrix: Air | Date Received: 05/21/04 9:10

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	111	ug/m3	4.6	06/03/04 22:29 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.4	06/03/04 22:29 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.6	06/03/04 22:29 MTG	78-93-3	
Benzene	ND	ug/m3	55	06/03/04 22:29 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.5	06/03/04 22:29 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.7	06/03/04 22:29 MTG	74-87-3	
Ethylbenzene	88.3	ug/m3	75	06/03/04 22:29 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	140	06/03/04 22:29 MTG		
Naphthalene	1650	ug/m3	85	06/03/04 22:29 MTG	91-20-3	
o-Xylene	ND	ug/m3	75	06/03/04 22:29 MTG	95-47-6	
Styrene	ND	ug/m3	3.8	06/03/04 22:29 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.7	06/03/04 22:29 MTG	127-18-4	
Toluene	49.8	ug/m3	3.2	06/03/04 22:29 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.5	06/03/04 22:29 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	210	06/03/04 22:29 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

Date: 6/8/2004

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1089265
Project Name: Peoples Gas-Hawthorne Reg.

Lab Sample No: 105657134
Client Sample ID: HAS-VOC-B-052004

ProjSampleNum: 1089265-002
Matrix: Air

Date Collected: 05/20/04 10:41
Date Received: 05/21/04 9:10

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.4	05/24/04 19:11 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.3	05/24/04 19:11 MTG	75-34-3	
2-Butanone (MEK)	4.2	ug/m3	2.5	05/24/04 19:11 MTG	78-93-3	
Benzene	ND	ug/m3	2.6	05/24/04 19:11 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.4	05/24/04 19:11 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	05/24/04 19:11 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.5	05/24/04 19:11 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.6	05/24/04 19:11 MTG		
Naphthalene	117	ug/m3	4.1	05/24/04 19:11 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.5	05/24/04 19:11 MTG	95-47-6	
Styrene	ND	ug/m3	3.7	05/24/04 19:11 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.5	05/24/04 19:11 MTG	127-18-4	
Toluene	ND	ug/m3	3.1	05/24/04 19:11 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.4	05/24/04 19:11 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	10	05/24/04 19:11 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

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Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1089265
Project Name: Peoples Gas-Hawthorne Reg.

PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

[1] The surrogate recovery was outside of acceptance limits.

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nelac

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

10892265

s & McDonnell Engineering
W. 22nd St
Brook, Illinois 60523
ne: (630) 990-0300 Fax: (630) 990-0301
ation: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE- SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-014-2004
Lab. Reference No. or Episode No.:

ect Number: 29168
Name: PEOPLES GAS- HAWTHORNE REGULATOR STATION

Sample Number: Group or Job Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): ~~From~~ START DATE	Sample Depth (in feet): ~~To~~ TIME	Sample ~~Collected~~ Date	Sample ~~Collected~~ Time	Sample Type: Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15 VOCs + NAPHTHALENE	8270 / Bis(2-Ethylhexyl)phthalate	8270 / Dibenzofuran	Final Vacuum	Remarks
S-VOC-A-052004			—	—	5/20/04	1130	5/20/04	1131			X	1	X		5657100	0	CANISTER # 639
S-VOC-B-052004			—	—	5/20/04	1040	5/20/04	1041			X	1	X		134	0	638
S-SVOC-A-052004			—	-	5/20/04	1115	5/20/04	1215			X	1		X	X 5657142		FLOW RATE: 1 L/MIN
S-SVOC-B-052004			—	-	5/20/04	1010	5/20/04	1110			X	1		X	X 159		1 L/MIN

5/20/04

PLEASE FIND:
1 BOX
1 COOLER

pler (signature):

Sampler (signature):

Custody Seal Number: 052004PACE-001 THRU 052004PACE-004

Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168, STANDARD TAT.

inquished By (signature): Date/Time: 5/20/04 14:00 | Received By (signature): Holly Peepers / PACE | Date/Time: 5/21/04 9:10 | Ice Present in Container: Yes [X] No [ ] | Temperature Upon Receipt: 4°C

inquished By (signature): Date/Time: | Received By (signature): | Date/Time: | Laboratory Comments:

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RECEIVED
JUN 18 2004
Burns & McDonnell
Oak Brook, IL

Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

June 16, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1089618
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on May 28, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

REPORT OF LABORATORY ANALYSIS

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Fax: 612.607.6444

Lab Project Number: 1089618
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105681191
Client Sample ID: HAS-VOC-A-052704

Project Sample Number: 1089618-001
Matrix: Air

Date Collected: 05/27/04 12:32
Date Received: 05/28/04 08:40

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.80	06/11/04 18:03	MTG	74-87-3		
1,1-Dichloroethane	0.99	ppbv	0.83	06/11/04 18:03	MTG	75-34-3		
1,1,1-Trichloroethane	32.	ppbv	17.	06/11/04 18:03	MTG	71-55-6		
Benzene	58.	ppbv	17.	06/11/04 18:03	MTG	71-43-2		
Trichloroethene	9.6	ppbv	0.83	06/11/04 18:03	MTG	79-01-6		
Toluene	26.	ppbv	0.83	06/11/04 18:03	MTG	108-88-3		
Tetrachloroethene	2.9	ppbv	0.83	06/11/04 18:03	MTG	127-18-4		
Ethylbenzene	110	ppbv	17.	06/11/04 18:03	MTG	100-41-4		
m&p-Xylene	110	ppbv	32.	06/11/04 18:03	MTG			
o-Xylene	76.	ppbv	17.	06/11/04 18:03	MTG	95-47-6		
Styrene	0.89	ppbv	0.87	06/11/04 18:03	MTG	100-42-5		
2-Butanone (MEK)	3.5	ppbv	0.87	06/11/04 18:03	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.80	06/11/04 18:03	MTG	75-15-0		
Naphthalene	850	ppbv	130	06/11/04 18:03	MTG	91-20-3		
Xylene (Total)	180	ppbv	48.	06/11/04 18:03	MTG	1330-20-7		

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Lab Project Number: 1089618
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105681217
Client Sample ID: HAS-VOC-B-052704

Project Sample Number: 1089618-002
Matrix: Air

Date Collected: 05/27/04 12:36
Date Received: 05/28/04 08:40

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	15.	06/14/04 18:02	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	15.	06/14/04 18:02	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	15.	06/14/04 18:02	MTG	71-55-6		
Benzene	480	ppbv	15.	06/14/04 18:02	MTG	71-43-2		
Trichloroethene	ND	ppbv	15.	06/14/04 18:02	MTG	79-01-6		
Toluene	ND	ppbv	250	06/14/04 18:02	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	15.	06/14/04 18:02	MTG	127-18-4		
Ethylbenzene	93.	ppbv	15.	06/14/04 18:02	MTG	100-41-4		
m&p-Xylene	ND	ppbv	470	06/14/04 18:02	MTG			
o-Xylene	ND	ppbv	250	06/14/04 18:02	MTG	95-47-6		
Styrene	ND	ppbv	16.	06/14/04 18:02	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	260	06/14/04 18:02	MTG	78-93-3		
Carbon disulfide	ND	ppbv	15.	06/14/04 18:02	MTG	75-15-0		
Naphthalene	57.	ppbv	15.	06/14/04 18:02	MTG	91-20-3		
Xylene (Total)	ND	ppbv	710	06/14/04 18:02	MTG	1330-20-7		

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Lab Project Number: 1089618
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1089618
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 110722
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15
Associated Lab Samples: 105681191

METHOD BLANK: 105736417
Associated Lab Samples: 105681191

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105736425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	10.71	106	
1,1-Dichloroethane	ppbv	10.60	9.564	90	
1,1,1-Trichloroethane	ppbv	10.50	10.24	98	
Benzene	ppbv	10.70	8.324	78	
Trichloroethene	ppbv	10.40	7.650	74	
Toluene	ppbv	10.60	7.765	73	
Tetrachloroethene	ppbv	10.40	9.121	88	
Ethylbenzene	ppbv	10.60	7.770	73	
m&p-Xylene	ppbv	21.00	16.63	79	
o-Xylene	ppbv	10.50	8.014	76	

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QUALITY CONTROL DATA

Lab Project Number: 1089618
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105736425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	7.782	74	
2-Butanone (MEK)	ppbv	10.50	8.330	79	
Carbon disulfide	ppbv	10.00	7.161	72	
Naphthalene	ppbv	10.00	11.72	117	

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QUALITY CONTROL DATA

Lab Project Number: 1089618
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 110813
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15
Associated Lab Samples: 105681217

METHOD BLANK: 105739551
Associated Lab Samples: 105681217

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	

LABORATORY CONTROL SAMPLE: 105739569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	10.08	100	
1,1-Dichloroethane	ppbv	10.60	10.48	99	
1,1,1-Trichloroethane	ppbv	10.50	10.35	99	
Benzene	ppbv	10.70	10.48	98	
Trichloroethene	ppbv	10.40	10.10	97	
Toluene	ppbv	10.60	10.17	96	
Tetrachloroethene	ppbv	10.40	9.969	96	
Ethylbenzene	ppbv	10.60	9.997	94	
m&p-Xylene	ppbv	21.00	20.14	96	
o-Xylene	ppbv	10.50	9.920	94	
Styrene	ppbv	10.50	10.03	96	

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Fax: 612.607.6444

QUALITY CONTROL DATA

Lab Project Number: 1089618
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105739569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ppbv	10.50	8.816	84	
Carbon disulfide	ppbv	10.00	9.844	98	

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Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1089618
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1089618
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105681191 ProjSampleNum: 1089618-001 Date Collected: 05/27/04 12:32
Client Sample ID: HAS-VOC-A-052704 Matrix: Air Date Received: 05/28/04 8:40

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	177	ug/m3	94	06/11/04 18:03 MTG	71-55-6	
1,1-Dichloroethane	4.07	ug/m3	3.4	06/11/04 18:03 MTG	75-34-3	
2-Butanone (MEK)	10.5	ug/m3	2.6	06/11/04 18:03 MTG	78-93-3	
Benzene	188	ug/m3	55	06/11/04 18:03 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.5	06/11/04 18:03 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.7	06/11/04 18:03 MTG	74-87-3	
Ethylbenzene	486	ug/m3	75	06/11/04 18:03 MTG	100-41-4	
m&p-Xylene	486	ug/m3	140	06/11/04 18:03 MTG		
Naphthalene	4530	ug/m3	690	06/11/04 18:03 MTG	91-20-3	
o-Xylene	335	ug/m3	75	06/11/04 18:03 MTG	95-47-6	
Styrene	3.85	ug/m3	3.8	06/11/04 18:03 MTG	100-42-5	
Tetrachloroethene	20	ug/m3	5.7	06/11/04 18:03 MTG	127-18-4	
Toluene	99.6	ug/m3	3.2	06/11/04 18:03 MTG	108-88-3	
Trichloroethene	52.4	ug/m3	4.5	06/11/04 18:03 MTG	79-01-6	
Xylene (Total)	795	ug/m3	210	06/11/04 18:03 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 6/16/2004

SUPPLEMENTAL REPORT
Units Conversion Request

REPORT OF LABORATORY ANALYSIS
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1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1089618
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105681217 | ProjSampleNum: 1089618-002 | Date Collected: 05/27/04 12:36
Client Sample ID: HAS-VOC-B-052704 | Matrix: Air | Date Received: 05/28/04 8:40

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	83	06/14/04 18:02 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	62	06/14/04 18:02 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	780	06/14/04 18:02 MTG	78-93-3	
Benzene	1560	ug/m3	49	06/14/04 18:02 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	47	06/14/04 18:02 MTG	75-15-0	
Chloromethane	ND	ug/m3	31	06/14/04 18:02 MTG	74-87-3	
Ethylbenzene	411	ug/m3	66	06/14/04 18:02 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	2100	06/14/04 18:02 MTG		
Naphthalene	304	ug/m3	80	06/14/04 18:02 MTG	91-20-3	
o-Xylene	ND	ug/m3	1100	06/14/04 18:02 MTG	95-47-6	
Styrene	ND	ug/m3	69	06/14/04 18:02 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	100	06/14/04 18:02 MTG	127-18-4	
Toluene	ND	ug/m3	960	06/14/04 18:02 MTG	108-88-3	
Trichloroethene	ND	ug/m3	82	06/14/04 18:02 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	3100	06/14/04 18:02 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record 1089618

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-015-2004
Lab. Reference No. or Episode No.:

Project Number: 29168

Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth Start (in feet) bgs: From DATE	Sample Depth Start (in feet) bgs: To TIME	Sample Collected End bgs: Date	Sample Collected End bgs: Time	Sample Type: Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs * + NAPHTHALENE						Final Vacuum	Remarks
HAS-VOC-A-052704			–	–	5/27/04	1231	5/27/04	1232			X	1	X	5681191					0	CANISTER # 460
HAS-VOC-B-052704			–	–	5/27/04	1235	5/27/04	1236			X	1	X	5681217					0	105

5/27/04

Sampler (signature): [signature]

Sampler (signature):

Custody Seal Number: 052704PACE-001, 052704PACE-002

Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168. STANDARD TAT.

Relinquished By (signature): 1. [signature] — Date/Time: 5/27/04 1400 — Received By (signature): [signature] Pace — Date/Time: 5/28/04

Relinquished By (signature): 2. — Date/Time: — Received By (signature): — Date/Time: 0840

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt:

Laboratory Comments:

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RECEIVED
JUN 18 2004
Burns & McDonnell
Oak Brook, IL

June 16, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1089914
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on June 4, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1089914
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105703888
Client Sample ID: HAS-VOC-A-060304

Project Sample Number: 1089914-001
Matrix: Air

Date Collected: 06/03/04 09:11
Date Received: 06/04/04 09:20

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
T015	Method: TO-15							
Chloromethane	ND	ppbv	0.69	06/11/04 18:52	MTG	74-87-3		
1,1-Dichloroethane	0.92	ppbv	0.72	06/11/04 18:52	MTG	75-34-3		
1,1,1-Trichloroethane	23.	ppbv	14.	06/11/04 18:52	MTG	71-55-6		
Benzene	44.	ppbv	14.	06/11/04 18:52	MTG	71-43-2		
Trichloroethene	6.7	ppbv	0.72	06/11/04 18:52	MTG	79-01-6		
Toluene	27.	ppbv	0.72	06/11/04 18:52	MTG	108-88-3		
Tetrachloroethene	2.2	ppbv	0.72	06/11/04 18:52	MTG	127-18-4		
Ethylbenzene	100	ppbv	14.	06/11/04 18:52	MTG	100-41-4		
m&p-Xylene	77.	ppbv	28.	06/11/04 18:52	MTG			
o-Xylene	61.	ppbv	14.	06/11/04 18:52	MTG	95-47-6		
Styrene	ND	ppbv	0.76	06/11/04 18:52	MTG	100-42-5		
2-Butanone (MEK)	7.0	ppbv	0.76	06/11/04 18:52	MTG	78-93-3		
Carbon disulfide	2.3	ppbv	0.69	06/11/04 18:52	MTG	75-15-0		
Naphthalene	820	ppbv	110	06/11/04 18:52	MTG	91-20-3		
Xylene (Total)	140	ppbv	41.	06/11/04 18:52	MTG	1330-20-7		

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Phone: 612.607.1700
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Lab Project Number: 1089914
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105703904
Client Sample ID: HAS-VOC-B-060304

Project Sample Number: 1089914-002
Matrix: Air

Date Collected: 06/03/04 09:06
Date Received: 06/04/04 09:20

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.69	06/11/04 17:17	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.72	06/11/04 17:17	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.72	06/11/04 17:17	MTG	71-55-6		
Benzene	ND	ppbv	0.72	06/11/04 17:17	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.72	06/11/04 17:17	MTG	79-01-6		
Toluene	1.7	ppbv	0.72	06/11/04 17:17	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.72	06/11/04 17:17	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.72	06/11/04 17:17	MTG	100-41-4		
m&p-Xylene	3.6	ppbv	1.4	06/11/04 17:17	MTG			
o-Xylene	1.3	ppbv	0.72	06/11/04 17:17	MTG	95-47-6		
Styrene	ND	ppbv	0.76	06/11/04 17:17	MTG	100-42-5		
2-Butanone (MEK)	1.6	ppbv	0.76	06/11/04 17:17	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.69	06/11/04 17:17	MTG	75-15-0		
Naphthalene	5.6	ppbv	0.69	06/11/04 17:17	MTG	91-20-3		
Xylene (Total)	5.0	ppbv	2.1	06/11/04 17:17	MTG	1330-20-7		

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Lab Project Number: 1089914
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1089914
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 110722 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105703888 105703904

METHOD BLANK: 105736417
Associated Lab Samples: 105703888 105703904

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105736425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	10.71	106	
1,1-Dichloroethane	ppbv	10.60	9.564	90	
1,1,1-Trichloroethane	ppbv	10.50	10.24	98	
Benzene	ppbv	10.70	8.324	78	
Trichloroethene	ppbv	10.40	7.650	74	
Toluene	ppbv	10.60	7.765	73	
Tetrachloroethene	ppbv	10.40	9.121	88	
Ethylbenzene	ppbv	10.60	7.770	73	
m&p-Xylene	ppbv	21.00	16.63	79	
o-Xylene	ppbv	10.50	8.014	76	

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QUALITY CONTROL DATA

Lab Project Number: 1089914
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105736425

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	7.782	74	
2-Butanone (MEK)	ppbv	10.50	8.330	79	
Carbon disulfide	ppbv	10.00	7.161	72	
Naphthalene	ppbv	10.00	11.72	117	

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Lab Project Number: 1089914
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1089914
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105703888 ProjSampleNum: 1089914-001 Date Collected: 06/03/04 9:11
Client Sample ID: HAS-VOC-A-060304 Matrix: Air Date Received: 06/04/04 9:20

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	128	ug/m3	78	06/11/04 18:52 MTG	71-55-6	
1,1-Dichloroethane	3.79	ug/m3	3	06/11/04 18:52 MTG	75-34-3	
2-Butanone (MEK)	21	ug/m3	2.3	06/11/04 18:52 MTG	78-93-3	
Benzene	143	ug/m3	45	06/11/04 18:52 MTG	71-43-2	
Carbon disulfide	7.28	ug/m3	2.2	06/11/04 18:52 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.4	06/11/04 18:52 MTG	74-87-3	
Ethylbenzene	441	ug/m3	62	06/11/04 18:52 MTG	100-41-4	
m&p-Xylene	340	ug/m3	120	06/11/04 18:52 MTG		
Naphthalene	4370	ug/m3	590	06/11/04 18:52 MTG	91-20-3	
o-Xylene	269	ug/m3	62	06/11/04 18:52 MTG	95-47-6	
Styrene	ND	ug/m3	3.3	06/11/04 18:52 MTG	100-42-5	
Tetrachloroethene	15.2	ug/m3	5	06/11/04 18:52 MTG	127-18-4	
Toluene	103	ug/m3	2.8	06/11/04 18:52 MTG	108-88-3	
Trichloroethene	36.6	ug/m3	3.9	06/11/04 18:52 MTG	79-01-6	
Xylene (Total)	618	ug/m3	180	06/11/04 18:52 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 6/16/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1089914
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105703904
Client Sample ID: HAS-VOC-B-060304

ProjSampleNum: 1089914-002
Matrix: Air

Date Collected: 06/03/04 9:06
Date Received: 06/04/04 9:20

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4	06/11/04 17:17 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3	06/11/04 17:17 MTG	75-34-3	
2-Butanone (MEK)	4.8	ug/m3	2.3	06/11/04 17:17 MTG	78-93-3	
Benzene	ND	ug/m3	2.3	06/11/04 17:17 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.2	06/11/04 17:17 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.4	06/11/04 17:17 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.2	06/11/04 17:17 MTG	100-41-4	
m&p-Xylene	15.9	ug/m3	6.2	06/11/04 17:17 MTG		
Naphthalene	29.8	ug/m3	3.7	06/11/04 17:17 MTG	91-20-3	
o-Xylene	5.74	ug/m3	3.2	06/11/04 17:17 MTG	95-47-6	
Styrene	ND	ug/m3	3.3	06/11/04 17:17 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5	06/11/04 17:17 MTG	127-18-4	
Toluene	6.51	ug/m3	2.8	06/11/04 17:17 MTG	108-88-3	
Trichloroethene	ND	ug/m3	3.9	06/11/04 17:17 MTG	79-01-6	
Xylene (Total)	22.1	ug/m3	9.3	06/11/04 17:17 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1089914

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-016-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth~~ START (~~in feet~~) ~~From~~ DATE	Sample ~~Depth~~ START (~~in feet~~) ~~To~~ TIME	Sample ~~Collected~~ END DATE	Sample ~~Collected~~ END TIME	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE						FINAL VACUUM	Remarks
HAS-VOC-A-060304			—	—	6/3/04	0910	6/3/04	0911			X	1	X	5	7	0	3	8	8	0	CANISTER #571
HAS-VOC-B-060304			—	—	6/3/04	0905	6/3/04	0906			X	1	X		✓	9	0	4		0	532

6/3/04

PLEASE FIND: 1 BOX

Sampler (signature): [signature]
Sampler (signature):
Custody Seal Number: 060204PACE-001, 060204PACE-002
Special Instructions: * USE LIST OF PARAMETERS. IN WORK ORDER 29168. STANDARD TAT.

Relinquished By (signature): 1. [signature] Date/Time: 6/3/04 1200 Received By (signature): [signature] Date/Time: 6-4-04 0920
Ice Present in Container: Yes ☐ No ☒
Temperature Upon Receipt:

Relinquished By (signature): 2. Date/Time: Received By (signature): Date/Time:
Laboratory Comments:

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Minneapolis, MN 55414
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Fax: 612.607.6444

RECEIVED
JUL 06 2004
Burns & McDonnell
Oak Brook, IL

July 01, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1090268
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on June 11, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1090268
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105731467 ProjSampleNum: 1090268-001 Date Collected: 06/10/04 11:11
Client Sample ID: HAS-VOC A-061004 Matrix: Air Date Received: 06/11/04 9:40

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	155	ug/m3	4	06/28/04 17:13 MTG	71-55-6	
1,1-Dichloroethane	5.35	ug/m3	3	06/28/04 17:13 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.3	06/28/04 17:13 MTG	78-93-3	
Benzene	ND	ug/m3	58	06/28/04 17:13 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.2	06/28/04 17:13 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.4	06/28/04 17:13 MTG	74-87-3	
Ethylbenzene	159	ug/m3	79	06/28/04 17:13 MTG	100-41-4	
m&p-Xylene	252	ug/m3	150	06/28/04 17:13 MTG		
Naphthalene	692	ug/m3	91	06/28/04 17:13 MTG	91-20-3	
o-Xylene	124	ug/m3	79	06/28/04 17:13 MTG	95-47-6	
Styrene	6.5	ug/m3	3.3	06/28/04 17:13 MTG	100-42-5	
Tetrachloroethene	16.5	ug/m3	5	06/28/04 17:13 MTG	127-18-4	
Toluene	53.6	ug/m3	2.8	06/28/04 17:13 MTG	108-88-3	
Trichloroethene	29	ug/m3	3.9	06/28/04 17:13 MTG	79-01-6	
Xylene (Total)	380	ug/m3	230	06/28/04 17:13 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1090268
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105731509
Client Sample ID: HAS-VOC-B-061004

ProjSampleNum: 1090268-002
Matrix: Air

Date Collected: 06/10/04 11:16
Date Received: 06/11/04 9:40

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4	06/28/04 16:28 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3	06/28/04 16:28 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.3	06/28/04 16:28 MTG	78-93-3	
Benzene	ND	ug/m3	2.3	06/28/04 16:28 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.2	06/28/04 16:28 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.4	06/28/04 16:28 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.2	06/28/04 16:28 MTG	100-41-4	
m&p-Xylene	10.6	ug/m3	6.2	06/28/04 16:28 MTG		
Naphthalene	144	ug/m3	3.7	06/28/04 16:28 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.2	06/28/04 16:28 MTG	95-47-6	
Styrene	ND	ug/m3	3.3	06/28/04 16:28 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5	06/28/04 16:28 MTG	127-18-4	
Toluene	6.13	ug/m3	2.8	06/28/04 16:28 MTG	108-88-3	
Trichloroethene	ND	ug/m3	3.9	06/28/04 16:28 MTG	79-01-6	
Xylene (Total)	10.6	ug/m3	9.3	06/28/04 16:28 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1090268
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105731467 | Project Sample Number: 1090268-001 | Date Collected: 06/10/04 11:11
Client Sample ID: HAS-VOC A-061004 | Matrix: Air | Date Received: 06/11/04 09:40

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
T015	Method: TO-15							
Chloromethane	ND	ppbv	0.69	06/28/04 17:13	MTG	74-87-3		
1,1-Dichloroethane	1.3	ppbv	0.72	06/28/04 17:13	MTG	75-34-3		
1,1,1-Trichloroethane	28.	ppbv	0.72	06/28/04 17:13	MTG	71-55-6		
Benzene	ND	ppbv	18.	06/28/04 17:13	MTG	71-43-2		
Trichloroethene	5.3	ppbv	0.72	06/28/04 17:13	MTG	79-01-6		
Toluene	14.	ppbv	0.72	06/28/04 17:13	MTG	108-88-3		
Tetrachloroethene	2.4	ppbv	0.72	06/28/04 17:13	MTG	127-18-4		
Ethylbenzene	36.	ppbv	18.	06/28/04 17:13	MTG	100-41-4		
m&p-Xylene	57.	ppbv	34.	06/28/04 17:13	MTG			
o-Xylene	28.	ppbv	18.	06/28/04 17:13	MTG	95-47-6		
Styrene	1.5	ppbv	0.76	06/28/04 17:13	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.76	06/28/04 17:13	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.69	06/28/04 17:13	MTG	75-15-0		
Naphthalene	130	ppbv	17.	06/28/04 17:13	MTG	91-20-3		
Xylene (Total)	86.	ppbv	52.	06/28/04 17:13	MTG	1330-20-7		

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Fax: 612.607.6444

Lab Project Number: 1090268
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105731509
Client Sample ID: HAS-VOC-B-061004

Project Sample Number: 1090268-002
Matrix: Air

Date Collected: 06/10/04 11:16
Date Received: 06/11/04 09:40

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.69	06/28/04 16:28	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.72	06/28/04 16:28	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.72	06/28/04 16:28	MTG	71-55-6		
Benzene	ND	ppbv	0.72	06/28/04 16:28	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.72	06/28/04 16:28	MTG	79-01-6		
Toluene	1.6	ppbv	0.72	06/28/04 16:28	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.72	06/28/04 16:28	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.72	06/28/04 16:28	MTG	100-41-4		
m&p-Xylene	2.4	ppbv	1.4	06/28/04 16:28	MTG			
o-Xylene	ND	ppbv	0.72	06/28/04 16:28	MTG	95-47-6		
Styrene	ND	ppbv	0.76	06/28/04 16:28	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.76	06/28/04 16:28	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.69	06/28/04 16:28	MTG	75-15-0		
Naphthalene	27.	ppbv	0.69	06/28/04 16:28	MTG	91-20-3		
Xylene (Total)	2.4	ppbv	2.1	06/28/04 16:28	MTG	1330-20-7		

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Lab Project Number: 1090268
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1090268
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 111637 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105731467 105731509

METHOD BLANK: 105788046
Associated Lab Samples: 105731467 105731509

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105788053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	10.04	99	
1,1-Dichloroethane	ppbv	10.60	10.29	97	
1,1,1-Trichloroethane	ppbv	10.50	9.754	93	
Benzene	ppbv	10.70	10.22	96	
Trichloroethene	ppbv	10.40	10.29	99	
Toluene	ppbv	10.60	10.63	100	
Tetrachloroethene	ppbv	10.40	9.684	93	
Ethylbenzene	ppbv	10.60	9.825	93	
m&p-Xylene	ppbv	21.00	19.86	95	
o-Xylene	ppbv	10.50	10.08	96	

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QUALITY CONTROL DATA

Lab Project Number: 1090268
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105788053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	10.01	95	
2-Butanone (MEK)	ppbv	10.50	10.50	100	
Carbon disulfide	ppbv	10.00	10.01	100	

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Lab Project Number: 1090268
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

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Burns & McDonnell
SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1090268

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301
Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-018-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet) ~~Date from~~ DUS ~~Start~~	Sample Depth (in feet) ~~Time to~~ DUS ~~End~~	Sample Collected ~~Date~~ DUS ~~End~~	Sample Collected: Time	Sample Type / Matrix: Liquid	Sample Type / Matrix: Solid	Sample Type / Matrix: Gas	Number of Containers	Parameter/Method Code: TO-15/VOC* + NAPHTHALENE						Final Vacuum	Remarks
HAS-VOC-A-061004			–	–	6/10/04	1110	6/10/04	1111			X	1	X	5	7	3	1	4	0	CANISTER #674
HAS-VOC-B-061004			–	–	6/10/04	1115	6/10/04	1116			X	1	X	✓		5	0	9	0	675

6/10/04

PLEASE FIND:
1 BOX

Sampler (signature): D Sf
Sampler (signature):
Custody Seal Number: 061004 PACE-001, 061004 PACE-002
Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168. STANDARD TAT.

Relinquished By (signature) 1. D Sf — Date/Time 6/10/04 1200 — Received By (signature): Holly Peepers/PACE — Date/Time 6/11/04 9:40
Relinquished By (signature) 2. — Date/Time — Received By (signature): — Date/Time

Ice Present in Container: Yes ☐ No ☒
Temperature Upon Receipt:
Laboratory Comments:

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JUL 1 5 2004

July 12, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1090586
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

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Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1090586
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105754642
Client Sample ID: HAS-VOC-A-061704

ProjSampleNum: 1090586-001
Matrix: Air

Date Collected: 06/17/04 9:56
Date Received: 06/18/04 9:15

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	211	ug/m3	22	07/06/04 17:44 MTG	71-55-6	
1,1-Dichloroethane	7.41	ug/m3	3.3	07/06/04 17:44 MTG	75-34-3	
2-Butanone (MEK)	9.89	ug/m3	2.5	07/06/04 17:44 MTG	78-93-3	
Benzene	8.12	ug/m3	2.6	07/06/04 17:44 MTG	71-43-2	
Carbon disulfide	9.81	ug/m3	2.4	07/06/04 17:44 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	07/06/04 17:44 MTG	74-87-3	
Ethylbenzene	12.4	ug/m3	3.5	07/06/04 17:44 MTG	100-41-4	
m&p-Xylene	36.6	ug/m3	6.6	07/06/04 17:44 MTG		
Naphthalene	192	ug/m3	20	07/06/04 17:44 MTG	91-20-3	
o-Xylene	11.5	ug/m3	3.5	07/06/04 17:44 MTG	95-47-6	
Styrene	ND	ug/m3	3.7	07/06/04 17:44 MTG	100-42-5	
Tetrachloroethene	20.7	ug/m3	5.5	07/06/04 17:44 MTG	127-18-4	
Toluene	30.3	ug/m3	3.1	07/06/04 17:44 MTG	108-88-3	
Trichloroethene	32.2	ug/m3	4.4	07/06/04 17:44 MTG	79-01-6	
Xylene (Total)	48.6	ug/m3	10	07/06/04 17:44 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 7/12/2004

SUPPLEMENTAL REPORT
Units Conversion Request

REPORT OF LABORATORY ANALYSIS

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1090586
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105754659
Client Sample ID: HAS-VOC-B-061704

ProjSampleNum: 1090586-002
Matrix: Air

Date Collected: 06/17/04 9:51
Date Received: 06/18/04 9:15

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.4	07/06/04 16:56 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.3	07/06/04 16:56 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.5	07/06/04 16:56 MTG	78-93-3	
Benzene	4.55	ug/m3	2.6	07/06/04 16:56 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.4	07/06/04 16:56 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	07/06/04 16:56 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.5	07/06/04 16:56 MTG	100-41-4	
m&p-Xylene	12.4	ug/m3	6.6	07/06/04 16:56 MTG		
Naphthalene	10.1	ug/m3	4.1	07/06/04 16:56 MTG	91-20-3	
o-Xylene	4.86	ug/m3	3.5	07/06/04 16:56 MTG	95-47-6	
Styrene	ND	ug/m3	3.7	07/06/04 16:56 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.5	07/06/04 16:56 MTG	127-18-4	
Toluene	7.66	ug/m3	3.1	07/06/04 16:56 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.4	07/06/04 16:56 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	10	07/06/04 16:56 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

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Fax: 612.607.6444

Lab Project Number: 1090586
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105754642 | Project Sample Number: 1090586-001 | Date Collected: 06/17/04 09:56
Client Sample ID: HAS-VOC-A-061704 | Matrix: Air | Date Received: 06/18/04 09:15

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.77	07/06/04 17:44	MTG	74-87-3		
1,1-Dichloroethane	1.8	ppbv	0.80	07/06/04 17:44	MTG	75-34-3		
1,1,1-Trichloroethane	38.	ppbv	4.0	07/06/04 17:44	MTG	71-55-6		
Benzene	2.5	ppbv	0.80	07/06/04 17:44	MTG	71-43-2		
Trichloroethene	5.9	ppbv	0.80	07/06/04 17:44	MTG	79-01-6		
Toluene	7.9	ppbv	0.80	07/06/04 17:44	MTG	108-88-3		
Tetrachloroethene	3.0	ppbv	0.80	07/06/04 17:44	MTG	127-18-4		
Ethylbenzene	2.8	ppbv	0.80	07/06/04 17:44	MTG	100-41-4		
m&p-Xylene	8.3	ppbv	1.5	07/06/04 17:44	MTG			
o-Xylene	2.6	ppbv	0.80	07/06/04 17:44	MTG	95-47-6		
Styrene	ND	ppbv	0.85	07/06/04 17:44	MTG	100-42-5		
2-Butanone (MEK)	3.3	ppbv	0.85	07/06/04 17:44	MTG	78-93-3		
Carbon disulfide	3.1	ppbv	0.77	07/06/04 17:44	MTG	75-15-0		
Naphthalene	36.	ppbv	3.8	07/06/04 17:44	MTG	91-20-3		
Xylene (Total)	11.	ppbv	2.3	07/06/04 17:44	MTG	1330-20-7		

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Lab Project Number: 1090586
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105754659
Client Sample ID: HAS-VOC-B-061704

Project Sample Number: 1090586-002
Matrix: Air

Date Collected: 06/17/04 09:51
Date Received: 06/18/04 09:15

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.77	07/06/04 16:56	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.80	07/06/04 16:56	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.80	07/06/04 16:56	MTG	71-55-6		
Benzene	1.4	ppbv	0.80	07/06/04 16:56	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.80	07/06/04 16:56	MTG	79-01-6		
Toluene	2.0	ppbv	0.80	07/06/04 16:56	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.80	07/06/04 16:56	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.80	07/06/04 16:56	MTG	100-41-4		
m&p-Xylene	2.8	ppbv	1.5	07/06/04 16:56	MTG			
o-Xylene	1.1	ppbv	0.80	07/06/04 16:56	MTG	95-47-6		
Styrene	ND	ppbv	0.85	07/06/04 16:56	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.85	07/06/04 16:56	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.77	07/06/04 16:56	MTG	75-15-0		
Naphthalene	1.9	ppbv	0.77	07/06/04 16:56	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.3	07/06/04 16:56	MTG	1330-20-7		

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Lab Project Number: 1090586
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1090586
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 112043 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105754642 105754659

METHOD BLANK: 105812895
Associated Lab Samples: 105754642 105754659

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105812903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	7.879	78	
1,1-Dichloroethane	ppbv	10.60	7.769	73	
1,1,1-Trichloroethane	ppbv	10.50	7.706	73	
Benzene	ppbv	10.70	7.620	71	
Trichloroethene	ppbv	10.40	7.374	71	
Toluene	ppbv	10.60	7.608	72	
Tetrachloroethene	ppbv	10.40	8.637	83	
Ethylbenzene	ppbv	10.60	8.774	83	
m&p-Xylene	ppbv	21.00	16.66	79	
o-Xylene	ppbv	10.50	8.408	80	

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QUALITY CONTROL DATA

Lab Project Number: 1090586
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105812903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	8.277	79	
2-Butanone (MEK)	ppbv	10.50	10.03	96	
Carbon disulfide	ppbv	10.00	7.716	77	
Naphthalene	ppbv	10.00	7.595	76	

SAMPLE DUPLICATE: 105812911

Parameter	Units	105779607 Result	DUP Result	RPD	Footnotes
Chloromethane	ppbv	ND	ND	NC	
1,1-Dichloroethane	ppbv	1.400	1.400	1	
1,1,1-Trichloroethane	ppbv	32.00	36.00	10	
Benzene	ppbv	ND	ND	NC	
Trichloroethene	ppbv	3.800	3.700	2	
Toluene	ppbv	1.100	1.000	6	
Tetrachloroethene	ppbv	2.300	2.000	16	
Ethylbenzene	ppbv	ND	ND	NC	
m&p-Xylene	ppbv	2.400	2.300	6	
o-Xylene	ppbv	ND	ND	NC	
Styrene	ppbv	ND	ND	NC	
2-Butanone (MEK)	ppbv	ND	ND	NC	
Carbon disulfide	ppbv	ND	ND	NC	
Naphthalene	ppbv	270.0	270.0	2	
Xylene (Total)	ppbv	2.400	2.300	6	

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1090586
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

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Burns & McDonnell
SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1090586

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-019-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth (in feet)~~ DVS: ~~From~~ DVS DATE	Sample ~~Depth (in feet)~~ DVS: ~~To~~ DVS TIME	Sample Collected: Date	Sample Collected: Time END	Sample Type: Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOC*+NAPHTHALENE					FINAL VACUUM	Remarks
HAS-VOC-A-061704			—	—	6/17/04	0955	6/17/04	0956			X	1	X		5752642			0	CANISTER #368
HAS-VOC-B-061704			—	—	6/17/04	0950	6/17/04	0951			X	1	X		✓	659		0	636

6/17/04

PLEASE FIND 1 BOX

Sampler (signature):

Sampler (signature):

Custody Seal Number: 061704PACE-001, 061704PACE-002

Special Instructions: *USE LIST OF PARAMETERS IN WORK ORDER 29168. STANDARD TAT.

Relinquished By (signature): 1. — Date/Time: 6/17/04 1200

Received By (signature): — Date/Time: 6-18-04 0915

Relinquished By (signature): 2. — Date/Time:

Received By (signature): — Date/Time:

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt:

Laboratory Comments:

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JUL 1 5 2004

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July 12, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on June 25, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1090940
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105779607 ProjSampleNum: 1090940-001 Date Collected: 06/24/04 10:06
Client Sample ID: HAS-VOC-A-062404 Matrix: Air Date Received: 06/25/04 9:15

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	177	ug/m3	20	07/06/04 19:20 MTG	71-55-6	
1,1-Dichloroethane	5.76	ug/m3	3	07/06/04 19:20 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.3	07/06/04 19:20 MTG	78-93-3	
Benzene	ND	ug/m3	2.3	07/06/04 19:20 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.2	07/06/04 19:20 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.4	07/06/04 19:20 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.2	07/06/04 19:20 MTG	100-41-4	
m&p-Xylene	10.6	ug/m3	6.2	07/06/04 19:20 MTG		
Naphthalene	1440	ug/m3	91	07/06/04 19:20 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.2	07/06/04 19:20 MTG	95-47-6	
Styrene	ND	ug/m3	3.3	07/06/04 19:20 MTG	100-42-5	
Tetrachloroethene	15.9	ug/m3	5	07/06/04 19:20 MTG	127-18-4	
Toluene	4.21	ug/m3	2.8	07/06/04 19:20 MTG	108-88-3	
Trichloroethene	20.8	ug/m3	3.9	07/06/04 19:20 MTG	79-01-6	
Xylene (Total)	10.6	ug/m3	9.3	07/06/04 19:20 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 7/12/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1090940
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105779623 ProjSampleNum: 1090940-002 Date Collected: 06/24/04 11:01
Client Sample ID: HAS-VOC-B-062404 Matrix: Air Date Received: 06/25/04 9:15

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.1	07/06/04 18:33 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3	07/06/04 18:33 MTG	75-34-3	
2-Butanone (MEK)	5.7	ug/m3	2.4	07/06/04 18:33 MTG	78-93-3	
Benzene	ND	ug/m3	2.4	07/06/04 18:33 MTG	71-43-2	
Carbon disulfide	5.7	ug/m3	2.3	07/06/04 18:33 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.5	07/06/04 18:33 MTG	74-87-3	
Ethylbenzene	15.9	ug/m3	3.3	07/06/04 18:33 MTG	100-41-4	
m&p-Xylene	37.1	ug/m3	6.2	07/06/04 18:33 MTG		
Naphthalene	128	ug/m3	3.8	07/06/04 18:33 MTG	91-20-3	
o-Xylene	11.5	ug/m3	3.3	07/06/04 18:33 MTG	95-47-6	
Styrene	5.63	ug/m3	3.4	07/06/04 18:33 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.1	07/06/04 18:33 MTG	127-18-4	
Toluene	11.5	ug/m3	2.8	07/06/04 18:33 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4	07/06/04 18:33 MTG	79-01-6	
Xylene (Total)	48.6	ug/m3	9.3	07/06/04 18:33 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105779607 | Project Sample Number: 1090940-001 | Date Collected: 06/24/04 10:06
Client Sample ID: HAS-VOC-A-062404 | Matrix: Air | Date Received: 06/25/04 09:15

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.69	07/06/04 19:20	MTG	74-87-3		
1,1-Dichloroethane	1.4	ppbv	0.72	07/06/04 19:20	MTG	75-34-3		
1,1,1-Trichloroethane	32.	ppbv	3.6	07/06/04 19:20	MTG	71-55-6		
Benzene	ND	ppbv	0.72	07/06/04 19:20	MTG	71-43-2		
Trichloroethene	3.8	ppbv	0.72	07/06/04 19:20	MTG	79-01-6		
Toluene	1.1	ppbv	0.72	07/06/04 19:20	MTG	108-88-3		
Tetrachloroethene	2.3	ppbv	0.72	07/06/04 19:20	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.72	07/06/04 19:20	MTG	100-41-4		
m&p-Xylene	2.4	ppbv	1.4	07/06/04 19:20	MTG			
o-Xylene	ND	ppbv	0.72	07/06/04 19:20	MTG	95-47-6		
Styrene	ND	ppbv	0.76	07/06/04 19:20	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.76	07/06/04 19:20	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.69	07/06/04 19:20	MTG	75-15-0		
Naphthalene	270	ppbv	17.	07/06/04 19:20	MTG	91-20-3		
Xylene (Total)	2.4	ppbv	2.1	07/06/04 19:20	MTG	1330-20-7		

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Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105779623
Client Sample ID: HAS-VOC-B-062404

Project Sample Number: 1090940-002
Matrix: Air

Date Collected: 06/24/04 11:01
Date Received: 06/25/04 09:15

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.72	07/06/04 18:33	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.74	07/06/04 18:33	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.74	07/06/04 18:33	MTG	71-55-6		
Benzene	ND	ppbv	0.74	07/06/04 18:33	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.74	07/06/04 18:33	MTG	79-01-6		
Toluene	3.0	ppbv	0.74	07/06/04 18:33	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.74	07/06/04 18:33	MTG	127-18-4		
Ethylbenzene	3.6	ppbv	0.74	07/06/04 18:33	MTG	100-41-4		
m&p-Xylene	8.4	ppbv	1.4	07/06/04 18:33	MTG			
o-Xylene	2.6	ppbv	0.74	07/06/04 18:33	MTG	95-47-6		
Styrene	1.3	ppbv	0.79	07/06/04 18:33	MTG	100-42-5		
2-Butanone (MEK)	1.9	ppbv	0.79	07/06/04 18:33	MTG	78-93-3		
Carbon disulfide	1.8	ppbv	0.72	07/06/04 18:33	MTG	75-15-0		
Naphthalene	24.	ppbv	0.72	07/06/04 18:33	MTG	91-20-3		
Xylene (Total)	11.	ppbv	2.1	07/06/04 18:33	MTG	1330-20-7		

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Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105779714 | Project Sample Number: 1090940-003 | Date Collected: 06/24/04 10:50
Client Sample ID: HAS-SVOC-A-062404 | Matrix: Air | Date Received: 06/25/04 09:15

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	07/02/04 15:32	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	07/02/04 15:32	KSK	117-81-7		
Nitrobenzene-d5 (S)	107	%		07/02/04 15:32	KSK	4165-60-0		
2-Fluorobiphenyl (S)	108	%		07/02/04 15:32	KSK	321-60-8		
Terphenyl-d14 (S)	97	%		07/02/04 15:32	KSK	1718-51-0		
Date Extracted	06/29/04			06/29/04				

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Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105779730
Client Sample ID: HAS-SVOC-B-062404

Project Sample Number: 1090940-004
Matrix: Air

Date Collected: 06/24/04 11:55
Date Received: 06/25/04 09:15

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Semivolatiles								
Semivolatiles in Air	Prep/Method:	/ EPA 8270						
Dibenzofuran	ND	Total ug	10.	07/02/04 16:14	KSK	132-64-9		
bis(2-Ethylhexyl)phthalate	ND	Total ug	10.	07/02/04 16:14	KSK	117-81-7		
Nitrobenzene-d5 (S)	110	%		07/02/04 16:14	KSK	4165-60-0		
2-Fluorobiphenyl (S)	111	%		07/02/04 16:14	KSK	321-60-8		
Terphenyl-d14 (S)	98	%		07/02/04 16:14	KSK	1718-51-0		
Date Extracted	06/29/04			06/29/04				

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Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 112043 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105779607 105779623

METHOD BLANK: 105812895
Associated Lab Samples: 105779607 105779623

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105812903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	7.879	78	
1,1-Dichloroethane	ppbv	10.60	7.769	73	
1,1,1-Trichloroethane	ppbv	10.50	7.706	73	
Benzene	ppbv	10.70	7.620	71	
Trichloroethene	ppbv	10.40	7.374	71	
Toluene	ppbv	10.60	7.608	72	
Tetrachloroethene	ppbv	10.40	8.637	83	
Ethylbenzene	ppbv	10.60	8.774	83	
m&p-Xylene	ppbv	21.00	16.66	79	
o-Xylene	ppbv	10.50	8.408	80	

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QUALITY CONTROL DATA

Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105812903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	8.277	79	
2-Butanone (MEK)	ppbv	10.50	10.03	96	
Carbon disulfide	ppbv	10.00	7.716	77	
Naphthalene	ppbv	10.00	7.595	76	

SAMPLE DUPLICATE: 105812911

Parameter	Units	105779607 Result	DUP Result	RPD	Footnotes
Chloromethane	ppbv	ND	ND	NC	
1,1-Dichloroethane	ppbv	1.400	1.400	1	
1,1,1-Trichloroethane	ppbv	32.00	36.00	10	
Benzene	ppbv	ND	ND	NC	
Trichloroethene	ppbv	3.800	3.700	2	
Toluene	ppbv	1.100	1.000	6	
Tetrachloroethene	ppbv	2.300	2.000	16	
Ethylbenzene	ppbv	ND	ND	NC	
m&p-Xylene	ppbv	2.400	2.300	6	
o-Xylene	ppbv	ND	ND	NC	
Styrene	ppbv	ND	ND	NC	
2-Butanone (MEK)	ppbv	ND	ND	NC	
Carbon disulfide	ppbv	ND	ND	NC	
Naphthalene	ppbv	270.0	270.0	2	
Xylene (Total)	ppbv	2.400	2.300	6	

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QUALITY CONTROL DATA

Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 111701
Analysis Method: EPA 8270
QC Batch Method:
Analysis Description: Semivolatiles in Air
Associated Lab Samples: 105779714 105779730

METHOD BLANK: 105791636
Associated Lab Samples: 105779714 105779730

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Dibenzofuran	Total ug	ND	10.	
bis(2-Ethylhexyl)phthalate	Total ug	ND	10.	
Nitrobenzene-d5 (S)	%	107		
2-Fluorobiphenyl (S)	%	108		
Terphenyl-d14 (S)	%	98		

LABORATORY CONTROL SAMPLE: 105791644

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Dibenzofuran	Total ug	200.00	200.4	100	
bis(2-Ethylhexyl)phthalate	Total ug	200.00	185.6	93	
Nitrobenzene-d5 (S)				101	
2-Fluorobiphenyl (S)				101	
Terphenyl-d14 (S)				93	

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Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1090940
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record 1090940

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e: (630) 990-0300 Fax: (630) 990-0301
tion: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-020-2004
Lab. Reference No. or Episode No.:

ct Number: 29168
Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: up or Name	Sample Point	Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth~~ START (~~in feet~~) DUS: ~~From~~ DATE	~~To~~ DUS TIME	Sample END ~~Collected~~ DUS: Date	Time	Sample Type Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs * + NAPHTHALENE	8270/BIS(2-ETHYLHEXYL)PHTHALATE	8270/DIBENZOFURAN			FINAL VACUUM	Remarks
S-VOC-A-062404 DUS			—	—	6/24/04	1005	6/24/04	1006			X	1	X		5779607			0	CANISTER #: 450
S-VOC-B-062404			—	—	6/24/04	1100	6/24/04	1101			X	1	X		5779623			0	123
S-SVOC-A-062404			—	—	6/24/04	0950	6/24/04	1050			X	1		X	X	5779714			FLOW RATE: 1 L/MIN
S-SVOC-B-062404			—	—	6/24/04	1055	6/24/04	1155			X	1		X	X	↓ 73		0	1 L/MIN

PLEASE FIND:
1 BOX
1 COOLER

6/24/04

mpler (signature):	Sampler (signature):	Custody Seal Number: 062404 PACE-001 THRU 062404 PACE-004	Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT
inquished By (signature):	Date/Time: 6/24/04 1300	Received By (signature): PACE	Date/Time: 6.25.04 09:15
linquished By (signature):	Date/Time:	Received By (signature):	Date/Time:

Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt: 2.5°C
Laboratory Comments:

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JUL 1 5 2004

Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

July 12, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1091344
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on July 2, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1091344
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105805337 ProjSampleNum: 1091344-001 Date Collected: 07/01/04 11:06
Client Sample ID: HAS-VOC-A-070104 Matrix: Air Date Received: 07/02/04 9:25

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	94.3	ug/m3	4.4	07/06/04 21:41 MTG	71-55-6	
1,1-Dichloroethane	5.76	ug/m3	3.3	07/06/04 21:41 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.5	07/06/04 21:41 MTG	78-93-3	
Benzene	179	ug/m3	52	07/06/04 21:41 MTG	71-43-2	
Carbon disulfide	9.18	ug/m3	2.4	07/06/04 21:41 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	07/06/04 21:41 MTG	74-87-3	
Ethylbenzene	530	ug/m3	71	07/06/04 21:41 MTG	100-41-4	
m&p-Xylene	371	ug/m3	140	07/06/04 21:41 MTG		
Naphthalene	6390	ug/m3	640	07/06/04 21:41 MTG	91-20-3	
o-Xylene	296	ug/m3	71	07/06/04 21:41 MTG	95-47-6	
Styrene	11.3	ug/m3	3.7	07/06/04 21:41 MTG	100-42-5	
Tetrachloroethene	29.6	ug/m3	5.5	07/06/04 21:41 MTG	127-18-4	
Toluene	49.8	ug/m3	3.1	07/06/04 21:41 MTG	108-88-3	
Trichloroethene	16.4	ug/m3	4.4	07/06/04 21:41 MTG	79-01-6	
Xylene (Total)	662	ug/m3	200	07/06/04 21:41 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 7/12/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1091344
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105805345
Client Sample ID: HAS-VOC-B-070104

ProjSampleNum: 1091344-002
Matrix: Air

Date Collected: 07/01/04 11:01
Date Received: 07/02/04 9:25

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.3	07/06/04 20:56 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.2	07/06/04 20:56 MTG	75-34-3	
2-Butanone (MEK)	4.8	ug/m3	2.4	07/06/04 20:56 MTG	78-93-3	
Benzene	ND	ug/m3	2.5	07/06/04 20:56 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.3	07/06/04 20:56 MTG	75-15-0	
Chloromethane	2.52	ug/m3	1.6	07/06/04 20:56 MTG	74-87-3	
Ethylbenzene	6.18	ug/m3	3.4	07/06/04 20:56 MTG	100-41-4	
m&p-Xylene	14.1	ug/m3	6.6	07/06/04 20:56 MTG		
Naphthalene	29.8	ug/m3	3.9	07/06/04 20:56 MTG	91-20-3	
o-Xylene	5.74	ug/m3	3.4	07/06/04 20:56 MTG	95-47-6	
Styrene	ND	ug/m3	3.5	07/06/04 20:56 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.3	07/06/04 20:56 MTG	127-18-4	
Toluene	6.51	ug/m3	2.9	07/06/04 20:56 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.2	07/06/04 20:56 MTG	79-01-6	
Xylene (Total)	19.4	ug/m3	9.7	07/06/04 20:56 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1091344
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105805337 | Project Sample Number: 1091344-001 | Date Collected: 07/01/04 11:06
Client Sample ID: HAS-VOC-A-070104 | Matrix: Air | Date Received: 07/02/04 09:25

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.77	07/06/04 21:41	MTG	74-87-3		
1,1-Dichloroethane	1.4	ppbv	0.80	07/06/04 21:41	MTG	75-34-3		
1,1,1-Trichloroethane	17.	ppbv	0.80	07/06/04 21:41	MTG	71-55-6		
Benzene	55.	ppbv	16.	07/06/04 21:41	MTG	71-43-2		
Trichloroethene	3.0	ppbv	0.80	07/06/04 21:41	MTG	79-01-6		
Toluene	13.	ppbv	0.80	07/06/04 21:41	MTG	108-88-3		
Tetrachloroethene	4.3	ppbv	0.80	07/06/04 21:41	MTG	127-18-4		
Ethylbenzene	120	ppbv	16.	07/06/04 21:41	MTG	100-41-4		
m&p-Xylene	84.	ppbv	31.	07/06/04 21:41	MTG			
o-Xylene	67.	ppbv	16.	07/06/04 21:41	MTG	95-47-6		
Styrene	2.6	ppbv	0.85	07/06/04 21:41	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.85	07/06/04 21:41	MTG	78-93-3		
Carbon disulfide	2.9	ppbv	0.77	07/06/04 21:41	MTG	75-15-0		
Naphthalene	1200	ppbv	120	07/06/04 21:41	MTG	91-20-3		
Xylene (Total)	150	ppbv	46.	07/06/04 21:41	MTG	1330-20-7		

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Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1091344
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105805345
Client Sample ID: HAS-VOC-B-070104

Project Sample Number: 1091344-002
Matrix: Air

Date Collected: 07/01/04 11:01
Date Received: 07/02/04 09:25

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	1.2	ppbv	0.74	07/06/04 20:56	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.77	07/06/04 20:56	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.77	07/06/04 20:56	MTG	71-55-6		
Benzene	ND	ppbv	0.77	07/06/04 20:56	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.77	07/06/04 20:56	MTG	79-01-6		
Toluene	1.7	ppbv	0.77	07/06/04 20:56	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.77	07/06/04 20:56	MTG	127-18-4		
Ethylbenzene	1.4	ppbv	0.77	07/06/04 20:56	MTG	100-41-4		
m&p-Xylene	3.2	ppbv	1.5	07/06/04 20:56	MTG			
o-Xylene	1.3	ppbv	0.77	07/06/04 20:56	MTG	95-47-6		
Styrene	ND	ppbv	0.81	07/06/04 20:56	MTG	100-42-5		
2-Butanone (MEK)	1.6	ppbv	0.81	07/06/04 20:56	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.74	07/06/04 20:56	MTG	75-15-0		
Naphthalene	5.6	ppbv	0.74	07/06/04 20:56	MTG	91-20-3		
Xylene (Total)	4.4	ppbv	2.2	07/06/04 20:56	MTG	1330-20-7		

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Fax: 612.607.6444

Lab Project Number: 1091344
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1091344
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 112043 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105805337 105805345

METHOD BLANK: 105812895
Associated Lab Samples: 105805337 105805345

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105812903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	7.879	78	
1,1-Dichloroethane	ppbv	10.60	7.769	73	
1,1,1-Trichloroethane	ppbv	10.50	7.706	73	
Benzene	ppbv	10.70	7.620	71	
Trichloroethene	ppbv	10.40	7.374	71	
Toluene	ppbv	10.60	7.608	72	
Tetrachloroethene	ppbv	10.40	8.637	83	
Ethylbenzene	ppbv	10.60	8.774	83	
m&p-Xylene	ppbv	21.00	16.66	79	
o-Xylene	ppbv	10.50	8.408	80	

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Fax: 612.607.6444

QUALITY CONTROL DATA

Lab Project Number: 1091344
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105812903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	8.277	79	
2-Butanone (MEK)	ppbv	10.50	10.03	96	
Carbon disulfide	ppbv	10.00	7.716	77	
Naphthalene	ppbv	10.00	7.595	76	

SAMPLE DUPLICATE: 105812911

Parameter	Units	105779607 Result	DUP Result	RPD	Footnotes
Chloromethane	ppbv	ND	ND	NC	
1,1-Dichloroethane	ppbv	1.400	1.400	1	
1,1,1-Trichloroethane	ppbv	32.00	36.00	10	
Benzene	ppbv	ND	ND	NC	
Trichloroethene	ppbv	3.800	3.700	2	
Toluene	ppbv	1.100	1.000	6	
Tetrachloroethene	ppbv	2.300	2.000	16	
Ethylbenzene	ppbv	ND	ND	NC	
m&p-Xylene	ppbv	2.400	2.300	6	
o-Xylene	ppbv	ND	ND	NC	
Styrene	ppbv	ND	ND	NC	
2-Butanone (MEK)	ppbv	ND	ND	NC	
Carbon disulfide	ppbv	ND	ND	NC	
Naphthalene	ppbv	270.0	270.0	2	
Xylene (Total)	ppbv	2.400	2.300	6	

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1091344
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

REPORT OF LABORATORY ANALYSIS
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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1091344

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: Joan Gonzalez

Laboratory: Pace Analytical
Address: 1700 Elm Street SE - Suite 200
City/State/Zip: Minneapolis, MN 55414
Telephone: (612) 607 1700

Document Control No: HAS-021-2004
Lab. Reference No. or Episode No.:

Project Number: 29168

Site Name: Peoples Gas - Hawthorne Regulator Station

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From (Start) Date	Sample Depth (in feet): To (Start) Time	Sample Collected: Date (End)	Sample Collected: Time	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs*, Naphthalene						Final Vacuum	Remarks
HAS	VOC-A-070	104	—	—	7/1/04	1105	7/1/04	1106				1	X		5805	337			0	Canister #686
HAS-	VOC-B-070	04	—	—	7/1/04	1100	7/1/04	1101			X	1	X		↓	345			0	052

Please find 1 Box

7/1/04

Sampler (signature):

Sampler (signature):

Custody Seal Number: 070104PACE-001, 070104PACE-002

Special Instructions: * Use list of parameters in work order 29168-001. Standard TAT

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
1.	7/1/04 1200	Holly Peepers / PACE	7/2/04 9:25
2.			

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt:

Laboratory Comments:

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RECEIVED
JUL 28 2004
Burns & McDonnell
Oak Brook, IL

Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

July 22, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1091568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on July 9, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137
Wisconsin Certification #: 9999407970

Enclosures

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1091568
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105820815 ProjSampleNum: 1091568-001 Date Collected: 07/08/04 9:11
Client Sample ID: HAS-VOC-A-070804 Matrix: Air Date Received: 07/09/04 9:00

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	66.6 J	ug/m3	4.1	07/21/04 16:46 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3	07/21/04 16:46 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.4	07/21/04 16:46 MTG	78-93-3	
Benzene	ND	ug/m3	2.4 UJ	07/21/04 16:46 MTG	71-43-2	
Carbon disulfide	5.38	ug/m3	2.3	07/21/04 16:46 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.5	07/21/04 16:46 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.3	07/21/04 16:46 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.2	07/21/04 16:46 MTG		
Naphthalene	ND	ug/m3	3.8	07/21/04 16:46 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.3 UJ	07/21/04 16:46 MTG	95-47-6	
Styrene	ND	ug/m3	3.4	07/21/04 16:46 MTG	100-42-5	
Tetrachloroethene	6.2	ug/m3	5.1	07/21/04 16:46 MTG	127-18-4	
Toluene	ND	ug/m3	2.8 UJ	07/21/04 16:46 MTG	108-88-3	
Trichloroethene	8.19	ug/m3	4	07/21/04 16:46 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	9.3	07/21/04 16:46 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

J = estimated value; poor LCS recovery. SFA
UJ = estimated non-detect value; poor LCS recovery. SFA

Date: 7/22/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1091568
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105820823 ProjSampleNum: 1091568-002 Date Collected: 07/08/04 9:06
Client Sample ID: HAS-VOC-B-070804 Matrix: Air Date Received: 07/09/04 9:00

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4 UJ	07/21/04 15:56 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3	07/21/04 15:56 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.3	07/21/04 15:56 MTG	78-93-3	
Benzene	3.57 J	ug/m3	2.3	07/21/04 15:56 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.2	07/21/04 15:56 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.4	07/21/04 15:56 MTG	74-87-3	
Ethylbenzene	6.18	ug/m3	3.2	07/21/04 15:56 MTG	100-41-4	
m&p-Xylene	29.1	ug/m3	6.2	07/21/04 15:56 MTG		
Naphthalene	117	ug/m3	3.7	07/21/04 15:56 MTG	91-20-3	
o-Xylene	11.9 J	ug/m3	3.2	07/21/04 15:56 MTG	95-47-6	
Styrene	ND	ug/m3	3.3	07/21/04 15:56 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5	07/21/04 15:56 MTG	127-18-4	
Toluene	27.6 J	ug/m3	2.8	07/21/04 15:56 MTG	108-88-3	
Trichloroethene	ND	ug/m3	3.9	07/21/04 15:56 MTG	79-01-6	
Xylene (Total)	41.1	ug/m3	9.3	07/21/04 15:56 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

J = estimated value; poor LCS recovery. SFA
UJ = estimated non-detect value; poor LCS recovery. SFA

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Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1091568
Project Name: Peoples Gas-Hawthorne Re

PARAMETER FOOTNOTES

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Lab Project Number: 1091568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105820815 | Project Sample Number: 1091568-001 | Date Collected: 07/08/04 09:11
Client Sample ID: HAS-VOC-A-070804 | Matrix: Air | Date Received: 07/09/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.72	07/21/04 16:46	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.74	07/21/04 16:46	MTG	75-34-3		
1,1,1-Trichloroethane	12.	ppbv	0.74	07/21/04 16:46	MTG	71-55-6		
Benzene	ND	ppbv	0.74	07/21/04 16:46	MTG	71-43-2		
Trichloroethene	1.5	ppbv	0.74	07/21/04 16:46	MTG	79-01-6		
Toluene	ND	ppbv	0.74	07/21/04 16:46	MTG	108-88-3		
Tetrachloroethene	0.90	ppbv	0.74	07/21/04 16:46	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.74	07/21/04 16:46	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.4	07/21/04 16:46	MTG			
o-Xylene	ND	ppbv	0.74	07/21/04 16:46	MTG	95-47-6		
Styrene	ND	ppbv	0.79	07/21/04 16:46	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.79	07/21/04 16:46	MTG	78-93-3		
Carbon disulfide	1.7	ppbv	0.72	07/21/04 16:46	MTG	75-15-0		
Naphthalene	ND	ppbv	0.72	07/21/04 16:46	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.1	07/21/04 16:46	MTG	1330-20-7		

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Lab Project Number: 1091568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105820823 | Project Sample Number: 1091568-002 | Date Collected: 07/08/04 09:06
Client Sample ID: HAS-VOC-B-070804 | Matrix: Air | Date Received: 07/09/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.69	07/21/04 15:56	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.72	07/21/04 15:56	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.72	07/21/04 15:56	MTG	71-55-6		
Benzene	1.1	ppbv	0.72	07/21/04 15:56	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.72	07/21/04 15:56	MTG	79-01-6		
Toluene	7.2	ppbv	0.72	07/21/04 15:56	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.72	07/21/04 15:56	MTG	127-18-4		
Ethylbenzene	1.4	ppbv	0.72	07/21/04 15:56	MTG	100-41-4		
m&p-Xylene	6.6	ppbv	1.4	07/21/04 15:56	MTG			
o-Xylene	2.7	ppbv	0.72	07/21/04 15:56	MTG	95-47-6		
Styrene	ND	ppbv	0.76	07/21/04 15:56	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.76	07/21/04 15:56	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.69	07/21/04 15:56	MTG	75-15-0		
Naphthalene	22	ppbv	0.69	07/21/04 15:56	MTG	91-20-3		
Xylene (Total)	9.3	ppbv	2.1	07/21/04 15:56	MTG	1330-20-7		

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Lab Project Number: 1091568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1091568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 112917 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105820815 105820823

METHOD BLANK: 105865315
Associated Lab Samples: 105820815 105820823

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105865349

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	7.984	79	
1,1-Dichloroethane	ppbv	10.60	7.588	72	
1,1,1-Trichloroethane	ppbv	10.50	7.272	69	
Benzene	ppbv	10.70	7.263	68	
Trichloroethene	ppbv	10.40	10.13	97	
Toluene	ppbv	10.60	7.240	68	
Tetrachloroethene	ppbv	10.40	8.991	86	
Ethylbenzene	ppbv	10.60	7.800	74	
m&p-Xylene	ppbv	21.00	20.96	100	
o-Xylene	ppbv	10.50	7.103	68	

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QUALITY CONTROL DATA

Lab Project Number: 1091568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105865349

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	7.704	73	
2-Butanone (MEK)	ppbv	10.50	7.294	70	
Carbon disulfide	ppbv	10.00	7.006	70	
Naphthalene	ppbv	10.00	12.48	125	

Date: 07/22/04

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Lab Project Number: 1091568
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record 1091568

& McDonnell Engineering
V. 22nd St
rook, Illinois 60523
: (630) 990-0300 Fax: (630) 990-0301
on: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE-SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-023-2004
Lab. Reference No. or Episode No.:

t Number: 29168
ame: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: o or Name	Sample Point	Sample Designator	Sample Event: Round	Year	Sample ~~Depth~~ START ~~(in feet)~~ DUS ~~From~~ START	START ~~To~~ DUS ~~END~~ DUS	Sample END ~~Collected~~ DUS Date	~~Time~~ END	Sample Type Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs*+NAPHTHALENE						FINAL VACUUM	Remarks
-VOC-A-070804			—	—	7/8/04	0910	7/8/04	0911			X	1	X	5820815					0	CANISTER #: 286
S-VOC-B-070804			—	—	7/8/04	0905	7/8/04	0906			X	1	X	↓	823				0	178

7/8/04

PLEASE FIND: 1 BOX

pler (signature):
Sampler (signature):
Custody Seal Number: 070804 PACE-001, 070804 PACE-002
Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT.

nquished By (signature): Date/Time 7/8/04 1200 Received By (signature): Date/Time 7/9/04 0850
Ice Present in Container: Yes ☐ No ☒
Temperature Upon Receipt:

nquished By (signature): Date/Time Received By (signature): Date/Time 7-9-04 09:00
Laboratory Comments:

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AUG 23 2004
Burns & McDonnell
Oak Brook, IL

Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

August 19, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1093114
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on August 6, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137

Wisconsin Certification #: 9999407970

Illinois Certification #: 200011

Enclosures

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Lab Project Number: 1093114
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105924518 | Project Sample Number: 1093114-001 | Date Collected: 08/05/04 10:26
Client Sample ID: HAS-VOC-A-080504 | Matrix: Air | Date Received: 08/06/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	14.	08/18/04 16:17	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	14.	08/18/04 16:17	MTG	75-34-3		
1,1,1-Trichloroethane	35.	ppbv	14.	08/18/04 16:17	MTG	71-55-6		
Benzene	47.	ppbv	14.	08/18/04 16:17	MTG	71-43-2		
Trichloroethene	ND	ppbv	14.	08/18/04 16:17	MTG	79-01-6		
Toluene	20.	ppbv	14.	08/18/04 16:17	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	14.	08/18/04 16:17	MTG	127-18-4		
Ethylbenzene	120	ppbv	14.	08/18/04 16:17	MTG	100-41-4		
m&p-Xylene	45.	ppbv	28.	08/18/04 16:17	MTG			
o-Xylene	59.	ppbv	14.	08/18/04 16:17	MTG	95-47-6		
Styrene	ND	ppbv	15.	08/18/04 16:17	MTG	100-42-5		
2-Butanone (MEK)	44.	ppbv	15.	08/18/04 16:17	MTG	78-93-3		
Carbon disulfide	ND	ppbv	14.	08/18/04 16:17	MTG	75-15-0		
Naphthalene	520	ppbv	14.	08/18/04 16:17	MTG	91-20-3		
Xylene (Total)	100	ppbv	41.	08/18/04 16:17	MTG	1330-20-7		

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Lab Project Number: 1093114
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105924526 | Project Sample Number: 1093114-002 | Date Collected: 08/05/04 10:21
Client Sample ID: HAS-VOC-B-080504 | Matrix: Air | Date Received: 08/06/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.74	08/18/04 15:37	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.77	08/18/04 15:37	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.77	08/18/04 15:37	MTG	71-55-6		
Benzene	ND	ppbv	0.77	08/18/04 15:37	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.77	08/18/04 15:37	MTG	79-01-6		
Toluene	ND	ppbv	0.77	08/18/04 15:37	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.77	08/18/04 15:37	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.77	08/18/04 15:37	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.5	08/18/04 15:37	MTG			
o-Xylene	ND	ppbv	0.77	08/18/04 15:37	MTG	95-47-6		
Styrene	ND	ppbv	0.81	08/18/04 15:37	MTG	100-42-5		
2-Butanone (MEK)	2.7	ppbv	0.81	08/18/04 15:37	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.74	08/18/04 15:37	MTG	75-15-0		
Naphthalene	8.6	ppbv	0.74	08/18/04 15:37	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.2	08/18/04 15:37	MTG	1330-20-7		

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Lab Project Number: 1093114
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1093114
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 114542 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105924518 105924526

METHOD BLANK: 105963649
Associated Lab Samples: 105924518 105924526

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105963656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	12.04	119	
1,1-Dichloroethane	ppbv	10.60	12.91	122	
1,1,1-Trichloroethane	ppbv	10.50	12.92	123	
Benzene	ppbv	10.70	12.58	118	
Trichloroethene	ppbv	10.40	12.96	125	
Toluene	ppbv	10.60	12.28	116	
Tetrachloroethene	ppbv	10.40	12.36	119	
Ethylbenzene	ppbv	10.60	12.57	119	
m&p-Xylene	ppbv	21.00	24.88	118	
o-Xylene	ppbv	10.50	11.79	112	

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QUALITY CONTROL DATA

Lab Project Number: 1093114
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105963656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	11.03	105	
2-Butanone (MEK)	ppbv	10.50	9.174	87	
Carbon disulfide	ppbv	10.00	12.02	120	
Naphthalene	ppbv	10.00	11.90	119	

SAMPLE DUPLICATE: 105963664

Parameter	Units	105924526 Result	DUP Result	RPD	Footnotes
Chloromethane	ppbv	ND	ND	NC	
1,1-Dichloroethane	ppbv	ND	ND	NC	
1,1,1-Trichloroethane	ppbv	ND	ND	NC	
Benzene	ppbv	ND	ND	NC	
Trichloroethene	ppbv	ND	ND	NC	
Toluene	ppbv	ND	ND	NC	
Tetrachloroethene	ppbv	ND	ND	NC	
Ethylbenzene	ppbv	ND	ND	NC	
m&p-Xylene	ppbv	ND	ND	NC	
o-Xylene	ppbv	ND	ND	NC	
Styrene	ppbv	ND	ND	NC	
2-Butanone (MEK)	ppbv	2.700	3.000	13	
Carbon disulfide	ppbv	ND	ND	NC	
Naphthalene	ppbv	8.600	8.900	3	
Xylene (Total)	ppbv	ND	ND	NC	

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Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1093114
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105924518 ProjSampleNum: 1093114-001 Date Collected: 08/05/04 10:26
Client Sample ID: HAS-VOC-A-080504 Matrix: Air Date Received: 08/06/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	194	ug/m3	78	08/18/04 16:17 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	58	08/18/04 16:17 MTG	75-34-3	
2-Butanone (MEK)	132	ug/m3	45	08/18/04 16:17 MTG	78-93-3	
Benzene	153	ug/m3	45	08/18/04 16:17 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	44	08/18/04 16:17 MTG	75-15-0	
Chloromethane	ND	ug/m3	29	08/18/04 16:17 MTG	74-87-3	
Ethylbenzene	530	ug/m3	62	08/18/04 16:17 MTG	100-41-4	
m&p-Xylene	199	ug/m3	120	08/18/04 16:17 MTG		
Naphthalene	2770	ug/m3	75	08/18/04 16:17 MTG	91-20-3	
o-Xylene	260	ug/m3	62	08/18/04 16:17 MTG	95-47-6	
Styrene	ND	ug/m3	65	08/18/04 16:17 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	97	08/18/04 16:17 MTG	127-18-4	
Toluene	76.6	ug/m3	54	08/18/04 16:17 MTG	108-88-3	
Trichloroethene	ND	ug/m3	76	08/18/04 16:17 MTG	79-01-6	
Xylene (Total)	441	ug/m3	180	08/18/04 16:17 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

Date: 8/19/2004

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1093114
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105924526
Client Sample ID: HAS-VOC-B-080504

ProjSampleNum: 1093114-002
Matrix: Air

Date Collected: 08/05/04 10:21
Date Received: 08/06/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.3	08/18/04 15:37 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.2	08/18/04 15:37 MTG	75-34-3	
2-Butanone (MEK)	8.09	ug/m3	2.4	08/18/04 15:37 MTG	78-93-3	
Benzene	ND	ug/m3	2.5	08/18/04 15:37 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.3	08/18/04 15:37 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	08/18/04 15:37 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.4	08/18/04 15:37 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.6	08/18/04 15:37 MTG		
Naphthalene	45.8	ug/m3	3.9	08/18/04 15:37 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.4	08/18/04 15:37 MTG	95-47-6	
Styrene	ND	ug/m3	3.5	08/18/04 15:37 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.3	08/18/04 15:37 MTG	127-18-4	
Toluene	ND	ug/m3	2.9	08/18/04 15:37 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.2	08/18/04 15:37 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	9.7	08/18/04 15:37 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1093114
Project Name: Peoples Gas-Hawthorne Re

PARAMETER FOOTNOTES

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1093114
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105924518
Client Sample ID: HAS-VOC-A-080504

ProjSampleNum: 1093114-001
Matrix: Air

Date Collected: 08/05/04 10:26
Date Received: 08/06/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	194	ug/m3	78	08/18/04 16:17 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	58	08/18/04 16:17 MTG	75-34-3	
2-Butanone (MEK)	132	ug/m3	45	08/18/04 16:17 MTG	78-93-3	
Benzene	153	ug/m3	45	08/18/04 16:17 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	44	08/18/04 16:17 MTG	75-15-0	
Chloromethane	ND	ug/m3	29	08/18/04 16:17 MTG	74-87-3	
Ethylbenzene	530	ug/m3	62	08/18/04 16:17 MTG	100-41-4	
m&p-Xylene	199	ug/m3	120	08/18/04 16:17 MTG		
Naphthalene	2770	ug/m3	75	08/18/04 16:17 MTG	91-20-3	
o-Xylene	260	ug/m3	62	08/18/04 16:17 MTG	95-47-6	
Styrene	ND	ug/m3	65	08/18/04 16:17 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	97	08/18/04 16:17 MTG	127-18-4	
Toluene	76.6	ug/m3	54	08/18/04 16:17 MTG	108-88-3	
Trichloroethene	ND	ug/m3	76	08/18/04 16:17 MTG	79-01-6	
Xylene (Total)	441	ug/m3	180	08/18/04 16:17 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 8/19/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1093114
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105924526 ProjSampleNum: 1093114-002 Date Collected: 08/05/04 10:21
Client Sample ID: HAS-VOC-B-080504 Matrix: Air Date Received: 08/06/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.3	08/18/04 15:37 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.2	08/18/04 15:37 MTG	75-34-3	
2-Butanone (MEK)	8.09	ug/m3	2.4	08/18/04 15:37 MTG	78-93-3	
Benzene	ND	ug/m3	2.5	08/18/04 15:37 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.3	08/18/04 15:37 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	08/18/04 15:37 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.4	08/18/04 15:37 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.6	08/18/04 15:37 MTG		
Naphthalene	45.8	ug/m3	3.9	08/18/04 15:37 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.4	08/18/04 15:37 MTG	95-47-6	
Styrene	ND	ug/m3	3.5	08/18/04 15:37 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.3	08/18/04 15:37 MTG	127-18-4	
Toluene	ND	ug/m3	2.9	08/18/04 15:37 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.2	08/18/04 15:37 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	9.7	08/18/04 15:37 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1093114

& McDonnell Engineering
V. 22nd St
rook, Illinois 60523
: (630) 990-0300 Fax: (630) 990-0301
on: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE-SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-026-2004
Lab. Reference No. or Episode No.:

t Number: 29168
ame: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: o or Name	Sample Point	Sample Designator	Sample Event: Round	Year	Sample ~~Depth~~ (in feet) START ~~From~~ DATE	~~To~~ TIME	Sample ~~Collected~~ END DATE	Time	Sample Type Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE						FINAL VACCUM	Remarks
-VOC-A-080504			-	-	8/5/04	1025	8/5/04	1026			X	1	X		5924	518			0	CANISTER # 011
-VOC-B-080504			-	-	8/5/04	1020	8/5/04	1021			X	1	X			526			0	262

8/5/04

PLEASE FIND:
1 BOX

ler (signature):

Sampler (signature):

Custody Seal Number
080504PACE-001
080504PACE-002

Special Instructions: * ANALYZE FOR LIST OF PARAMETERS IN WORK ORDER #29168. STANDARD TAT.

nquished By (signature):

Date/Time: 8/5/04 1230

Received By (signature): PACE

Date/Time: 8-6-04 09:30

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt:

nquished By (signature):

Date/Time

Received By (signature):

Date/Time

Laboratory Comments:

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RECEIVED
AUG 23 2004
Burns & McDonnell
Oak Brook, IL

August 19, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1093472
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on August 13, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137

Wisconsin Certification #: 9999407970

Illinois Certification #: 200011

Enclosures

REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 1093472
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105946446
Client Sample ID: HAS-VOC-A-081204

Project Sample Number: 1093472-001
Matrix: Air

Date Collected: 08/12/04 10:01
Date Received: 08/13/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
T015	Method: TO-15							
Chloromethane	ND	ppbv	0.77	08/18/04 13:58	MTG	74-87-3		
1,1-Dichloroethane	0.95	ppbv	0.80	08/18/04 13:58	MTG	75-34-3		
1,1,1-Trichloroethane	29.	ppbv	0.80	08/18/04 13:58	MTG	71-55-6		
Benzene	ND	ppbv	0.80	08/18/04 13:58	MTG	71-43-2		
Trichloroethene	2.9	ppbv	0.80	08/18/04 13:58	MTG	79-01-6		
Toluene	ND	ppbv	0.80	08/18/04 13:58	MTG	108-88-3		
Tetrachloroethene	0.94	ppbv	0.80	08/18/04 13:58	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.80	08/18/04 13:58	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.5	08/18/04 13:58	MTG			
o-Xylene	ND	ppbv	0.80	08/18/04 13:58	MTG	95-47-6		
Styrene	ND	ppbv	0.85	08/18/04 13:58	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.85	08/18/04 13:58	MTG	78-93-3		
Carbon disulfide	2.1	ppbv	0.77	08/18/04 13:58	MTG	75-15-0		
Naphthalene	130	ppbv	15.	08/18/04 13:58	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.3	08/18/04 13:58	MTG	1330-20-7		

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Fax: 612.607.6444

Lab Project Number: 1093472
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105946461
Client Sample ID: HAS-VOC-B-081204

Project Sample Number: 1093472-002
Matrix: Air

Date Collected: 08/12/04 09:56
Date Received: 08/13/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.70	08/18/04 14:48	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.73	08/18/04 14:48	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.73	08/18/04 14:48	MTG	71-55-6		
Benzene	ND	ppbv	0.73	08/18/04 14:48	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.73	08/18/04 14:48	MTG	79-01-6		
Toluene	ND	ppbv	0.73	08/18/04 14:48	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.73	08/18/04 14:48	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.73	08/18/04 14:48	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.4	08/18/04 14:48	MTG			
o-Xylene	ND	ppbv	0.73	08/18/04 14:48	MTG	95-47-6		
Styrene	ND	ppbv	0.78	08/18/04 14:48	MTG	100-42-5		
2-Butanone (MEK)	1.1	ppbv	0.78	08/18/04 14:48	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.70	08/18/04 14:48	MTG	75-15-0		
Naphthalene	22.	ppbv	0.70	08/18/04 14:48	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.1	08/18/04 14:48	MTG	1330-20-7		

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Lab Project Number: 1093472
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1093472
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 114542 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105946446 105946461

METHOD BLANK: 105963649
Associated Lab Samples: 105946446 105946461

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105963656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	12.04	119	
1,1-Dichloroethane	ppbv	10.60	12.91	122	
1,1,1-Trichloroethane	ppbv	10.50	12.92	123	
Benzene	ppbv	10.70	12.58	118	
Trichloroethene	ppbv	10.40	12.96	125	
Toluene	ppbv	10.60	12.28	116	
Tetrachloroethene	ppbv	10.40	12.36	119	
Ethylbenzene	ppbv	10.60	12.57	119	
m&p-Xylene	ppbv	21.00	24.88	118	
o-Xylene	ppbv	10.50	11.79	112	

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QUALITY CONTROL DATA

Lab Project Number: 1093472
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105963656

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	11.03	105	
2-Butanone (MEK)	ppbv	10.50	9.174	87	
Carbon disulfide	ppbv	10.00	12.02	120	
Naphthalene	ppbv	10.00	11.90	119	

SAMPLE DUPLICATE: 105963664

Parameter	Units	105924526 Result	DUP Result	RPD	Footnotes
Chloromethane	ppbv	ND	ND	NC	
1,1-Dichloroethane	ppbv	ND	ND	NC	
1,1,1-Trichloroethane	ppbv	ND	ND	NC	
Benzene	ppbv	ND	ND	NC	
Trichloroethene	ppbv	ND	ND	NC	
Toluene	ppbv	ND	ND	NC	
Tetrachloroethene	ppbv	ND	ND	NC	
Ethylbenzene	ppbv	ND	ND	NC	
m&p-Xylene	ppbv	ND	ND	NC	
o-Xylene	ppbv	ND	ND	NC	
Styrene	ppbv	ND	ND	NC	
2-Butanone (MEK)	ppbv	2.700	3.000	13	
Carbon disulfide	ppbv	ND	ND	NC	
Naphthalene	ppbv	8.600	8.900	3	
Xylene (Total)	ppbv	ND	ND	NC	

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Lab Project Number: 1093472
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

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Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1093472
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105946446 ProjSampleNum: 1093472-001 Date Collected: 08/12/04 10:01
Client Sample ID: HAS-VOC-A-081204 Matrix: Air Date Received: 08/13/04 9:00

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	161	ug/m3	4.4	08/18/04 13:58 MTG	71-55-6	
1,1-Dichloroethane	3.91	ug/m3	3.3	08/18/04 13:58 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.5	08/18/04 13:58 MTG	78-93-3	
Benzene	ND	ug/m3	2.6	08/18/04 13:58 MTG	71-43-2	
Carbon disulfide	6.65	ug/m3	2.4	08/18/04 13:58 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	08/18/04 13:58 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.5	08/18/04 13:58 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.6	08/18/04 13:58 MTG		
Naphthalene	692	ug/m3	80	08/18/04 13:58 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.5	08/18/04 13:58 MTG	95-47-6	
Styrene	ND	ug/m3	3.7	08/18/04 13:58 MTG	100-42-5	
Tetrachloroethene	6.48	ug/m3	5.5	08/18/04 13:58 MTG	127-18-4	
Toluene	ND	ug/m3	3.1	08/18/04 13:58 MTG	108-88-3	
Trichloroethene	15.8	ug/m3	4.4	08/18/04 13:58 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	10	08/18/04 13:58 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 8/19/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1093472
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105946461
Client Sample ID: HAS-VOC-B-081204

ProjSampleNum: 1093472-002
Matrix: Air

Date Collected: 08/12/04 9:56
Date Received: 08/13/04 9:00

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4	08/18/04 14:48 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3	08/18/04 14:48 MTG	75-34-3	
2-Butanone (MEK)	3.3	ug/m3	2.3	08/18/04 14:48 MTG	78-93-3	
Benzene	ND	ug/m3	2.4	08/18/04 14:48 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.2	08/18/04 14:48 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.5	08/18/04 14:48 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.2	08/18/04 14:48 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.2	08/18/04 14:48 MTG		
Naphthalene	117	ug/m3	3.7	08/18/04 14:48 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.2	08/18/04 14:48 MTG	95-47-6	
Styrene	ND	ug/m3	3.4	08/18/04 14:48 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5	08/18/04 14:48 MTG	127-18-4	
Toluene	ND	ug/m3	2.8	08/18/04 14:48 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4	08/18/04 14:48 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	9.3	08/18/04 14:48 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 8/19/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Burns & McDonnell
SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1093472

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-027-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (In feet): Start From	Sample Depth (In feet): Start To	Sample Collected: End Date	Sample Collected: End Time	Sample Type: Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO15/VOCs + Naphthalene						Final Vacuum	Remarks
HAS-VOC-A-081204			–	–	8/12/04	1000	8/12/04	1001			X	1	X		5946446				0	Canister #: 333
HAS-VOC-B-081204			–	–	8/12/04	0955	8/12/04	0956			X	1	X		6461				0	368

8/12/04

Please Find: 1 Box

Sampler (signature): D Scott

Sampler (signature):

Custody Seal Number: 081204 PACE-001, 081204 PACE-002

Special Instructions: * USE PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT.

Relinquished By (signature) 1: D Scott — Date/Time: 8/12/04 1200 — Received By (signature): Kelly Crawford PACE — Date/Time: 8/13/04 9:00

Relinquished By (signature) 2: — Date/Time: — Received By (signature): — Date/Time:

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt: 17°C

Laboratory Comments:

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

RECEIVED
SEP 07 2004
Burns & McDonnell
Oak Brook, IL

September 01, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1093898
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on August 20, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137

Wisconsin Certification #: 9999407970

Illinois Certification #: 200011

Enclosures

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1093898
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105974844 | Project Sample Number: 1093898-001 | Date Collected: 08/19/04 10:11
Client Sample ID: HAS-VOC-A-081904 | Matrix: Air | Date Received: 08/20/04 08:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	7.7	08/27/04 17:48	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	8.0	08/27/04 17:48	MTG	75-34-3		
1,1,1-Trichloroethane	26.	ppbv	8.0	08/27/04 17:48	MTG	71-55-6		
Benzene	37.	ppbv	8.0	08/27/04 17:48	MTG	71-43-2		
Trichloroethene	ND	ppbv	8.0	08/27/04 17:48	MTG	79-01-6		
Toluene	10.	ppbv	8.0	08/27/04 17:48	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	8.0	08/27/04 17:48	MTG	127-18-4		
Ethylbenzene	130	ppbv	8.0	08/27/04 17:48	MTG	100-41-4		
m&p-Xylene	34.	ppbv	15.	08/27/04 17:48	MTG			
o-Xylene	50.	ppbv	8.0	08/27/04 17:48	MTG	95-47-6		
Styrene	ND	ppbv	8.5	08/27/04 17:48	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	8.5	08/27/04 17:48	MTG	78-93-3		
Carbon disulfide	ND	ppbv	7.7	08/27/04 17:48	MTG	75-15-0		
Naphthalene	840	ppbv	62.	08/27/04 17:48	MTG	91-20-3		
Xylene (Total)	84.	ppbv	23.	08/27/04 17:48	MTG	1330-20-7		

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Fax: 612.607.6444

Lab Project Number: 1093898
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 105974851 | Project Sample Number: 1093898-002 | Date Collected: 08/19/04 10:01
Client Sample ID: HAS-VOC-B-081904 | Matrix: Air | Date Received: 08/20/04 08:50

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.74	08/26/04 17:03	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.77	08/26/04 17:03	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.77	08/26/04 17:03	MTG	71-55-6		
Benzene	3.7	ppbv	0.77	08/26/04 17:03	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.77	08/26/04 17:03	MTG	79-01-6		
Toluene	2.5	ppbv	0.77	08/26/04 17:03	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.77	08/26/04 17:03	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.77	08/26/04 17:03	MTG	100-41-4		
m&p-Xylene	1.7	ppbv	1.5	08/26/04 17:03	MTG			
o-Xylene	ND	ppbv	0.77	08/26/04 17:03	MTG	95-47-6		
Styrene	ND	ppbv	0.81	08/26/04 17:03	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.81	08/26/04 17:03	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.74	08/26/04 17:03	MTG	75-15-0		
Naphthalene	25.	ppbv	0.74	08/26/04 17:03	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.2	08/26/04 17:03	MTG	1330-20-7		

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Lab Project Number: 1093898
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1093898
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 115060
QC Batch Method: TO-15
Associated Lab Samples: 105974851

Analysis Method: TO-15
Analysis Description: TO15

METHOD BLANK: 105994065
Associated Lab Samples: 105974851

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 105994073

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	9.108	90	
1,1-Dichloroethane	ppbv	10.60	8.921	84	
1,1,1-Trichloroethane	ppbv	10.50	9.502	90	
Benzene	ppbv	10.70	8.505	80	
Trichloroethene	ppbv	10.40	8.943	86	
Toluene	ppbv	10.60	8.444	80	
Tetrachloroethene	ppbv	10.40	9.100	88	
Ethylbenzene	ppbv	10.60	9.057	85	
m&p-Xylene	ppbv	21.00	18.28	87	
o-Xylene	ppbv	10.50	8.877	84	

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QUALITY CONTROL DATA

Lab Project Number: 1093898
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 105994073

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	8.658	82	
2-Butanone (MEK)	ppbv	10.50	12.73	121	
Carbon disulfide	ppbv	10.00	7.995	80	
Naphthalene	ppbv	10.00	8.561	86	

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QUALITY CONTROL DATA

Lab Project Number: 1093898
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 115141
QC Batch Method: TO-15
Associated Lab Samples: 105974844

Analysis Method: TO-15
Analysis Description: TO15

METHOD BLANK: 106000870
Associated Lab Samples: 105974844

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 106000888

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	10.79	107	
1,1-Dichloroethane	ppbv	10.60	8.599	81	
1,1,1-Trichloroethane	ppbv	10.50	9.228	88	
Benzene	ppbv	10.70	9.168	86	
Trichloroethene	ppbv	10.40	10.26	99	
Toluene	ppbv	10.60	7.822	74	
Tetrachloroethene	ppbv	10.40	10.97	105	
Ethylbenzene	ppbv	10.60	7.569	71	
m&p-Xylene	ppbv	21.00	15.12	72	
o-Xylene	ppbv	10.50	8.077	77	

Date: 09/01/04

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QUALITY CONTROL DATA

Lab Project Number: 1093898
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 106000888

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	8.743	83	
2-Butanone (MEK)	ppbv	10.50	7.637	73	
Carbon disulfide	ppbv	10.00	7.963	80	
Naphthalene	ppbv	10.00	8.361	84	

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Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1093898
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

Date: 09/01/04

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Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1093898
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105974844 ProjSampleNum: 1093898-001 Date Collected: 08/19/04 10:11
Client Sample ID: HAS-VOC-A-081904 Matrix: Air Date Received: 08/20/04 8:50

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	144	ug/m3	44	08/27/04 17:48 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	33	08/27/04 17:48 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	25	08/27/04 17:48 MTG	78-93-3	
Benzene	120	ug/m3	26	08/27/04 17:48 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	24	08/27/04 17:48 MTG	75-15-0	
Chloromethane	ND	ug/m3	16	08/27/04 17:48 MTG	74-87-3	
Ethylbenzene	574	ug/m3	35	08/27/04 17:48 MTG	100-41-4	
m&p-Xylene	150	ug/m3	66	08/27/04 17:48 MTG		
Naphthalene	4470	ug/m3	330	08/27/04 17:48 MTG	91-20-3	
o-Xylene	221	ug/m3	35	08/27/04 17:48 MTG	95-47-6	
Styrene	ND	ug/m3	37	08/27/04 17:48 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	55	08/27/04 17:48 MTG	127-18-4	
Toluene	38.3	ug/m3	31	08/27/04 17:48 MTG	108-88-3	
Trichloroethene	ND	ug/m3	44	08/27/04 17:48 MTG	79-01-6	
Xylene (Total)	371	ug/m3	100	08/27/04 17:48 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1093898
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 105974851
Client Sample ID: HAS-VOC-B-081904

ProjSampleNum: 1093898-002
Matrix: Air

Date Collected: 08/19/04 10:01
Date Received: 08/20/04 8:50

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.3	08/26/04 17:03 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.2	08/26/04 17:03 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.4	08/26/04 17:03 MTG	78-93-3	
Benzene	12	ug/m3	2.5	08/26/04 17:03 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.3	08/26/04 17:03 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	08/26/04 17:03 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.4	08/26/04 17:03 MTG	100-41-4	
m&p-Xylene	7.5	ug/m3	6.6	08/26/04 17:03 MTG		
Naphthalene	133	ug/m3	3.9	08/26/04 17:03 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.4	08/26/04 17:03 MTG	95-47-6	
Styrene	ND	ug/m3	3.5	08/26/04 17:03 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.3	08/26/04 17:03 MTG	127-18-4	
Toluene	9.58	ug/m3	2.9	08/26/04 17:03 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.2	08/26/04 17:03 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	9.7	08/26/04 17:03 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 9/1/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1093898

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-028-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or WMU Name	Sample Point	Sample Designator	Sample Event: Round	Year	Sample ~~Depth~~ (in feet) START ~~From~~ DATE	~~To~~ TIME	Sample ~~Collected~~ END Date	Time	Sample Type: Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCS*+NAPHTHALENE						FINAL VACUUM	Remarks
HAS-VOC-A-081904			—	—	8/19/04	1010	8/19/04	1011			X	1	X	8974844					0	CANISTER #: 252
HAS-VOC-B-081904			—	—	8/19/04	1000	8/19/04	1001			X	1	X		4857				0	069 ~~069~~

PLEASE FIND: 1 BOX

8/19/04

Sampler (signature):

Sampler (signature):

Custody Seal Number: 081904PACE-001, 081904PACE-002

Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT.

Relinquished By (signature): 1.
Date/Time: 8/19/04 1200
Received By (signature): PACE
Date/Time: 8:20-04/08:50

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt:

Relinquished By (signature): 2.
Date/Time:
Received By (signature):
Date/Time:

Laboratory Comments:

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1700 Elm Street, Suite 200
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

RECEIVED
SEP 13 2004
Burns & McDonnell
Oak Brook, IL

September 08, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1094213
Client Project ID: Peoples Gas-Hawthorne 29168

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on August 27, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137

Wisconsin Certification #: 9999407970

Illinois Certification #: 200011

Enclosures

REPORT OF LABORATORY ANALYSIS

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Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1094213
Client Project ID: Peoples Gas-Hawthorne 29168

Lab Sample No: 105995377 | Project Sample Number: 1094213-001 | Date Collected: 08/26/04 10:56
Client Sample ID: HAS-VOC-A-082604 | Matrix: Air | Date Received: 08/27/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.72	09/02/04 17:41	MTG	74-87-3		
1,1-Dichloroethane	7.8 J	ppbv	0.74	09/02/04 17:41	MTG	75-34-3		
1,1,1-Trichloroethane	41. J	ppbv	15.	09/02/04 17:41	MTG	71-55-6		
Benzene	20. J	ppbv	15.	09/02/04 17:41	MTG	71-43-2		
Trichloroethene	20. J	ppbv	0.74	09/02/04 17:41	MTG	79-01-6		
Toluene	24.	ppbv	0.74	09/02/04 17:41	MTG	108-88-3		
Tetrachloroethene	4.3 J	ppbv	0.74	09/02/04 17:41	MTG	127-18-4		
Ethylbenzene	59. J	ppbv	15.	09/02/04 17:41	MTG	100-41-4		
m&p-Xylene	ND	ppbv	29. UJ	09/02/04 17:41	MTG			
o-Xylene	22. J	ppbv	15.	09/02/04 17:41	MTG	95-47-6		
Styrene	0.99 J	ppbv	0.79	09/02/04 17:41	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.79	09/02/04 17:41	MTG	78-93-3		
Carbon disulfide	4.0 J	ppbv	0.72	09/02/04 17:41	MTG	75-15-0		
Naphthalene	390 J	ppbv	14.	09/02/04 17:41	MTG	91-20-3		
Xylene (Total)	ND	ppbv	43. UJ	09/02/04 17:41	MTG	1330-20-7		

J = estimated value; poor duplicate results. SFA
UJ = estimated non-detect value; poor duplicate results. SFA

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Lab Project Number: 1094213
Client Project ID: Peoples Gas-Hawthorne 29168

Lab Sample No: 105995385
Client Sample ID: HAS-VOC-B-082604

Project Sample Number: 1094213-002
Matrix: Air

Date Collected: 08/26/04 10:51
Date Received: 08/27/04 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.77	09/02/04 16:43	MTG	74-87-3		
1,1-Dichloroethane	ND	ppbv	0.80	09/02/04 16:43	MTG	75-34-3		
1,1,1-Trichloroethane	ND	ppbv	0.80	09/02/04 16:43	MTG	71-55-6		
Benzene	ND	ppbv	0.80	09/02/04 16:43	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.80	09/02/04 16:43	MTG	79-01-6		
Toluene	ND	ppbv	0.80	09/02/04 16:43	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.80	09/02/04 16:43	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.80	09/02/04 16:43	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.5	09/02/04 16:43	MTG			
o-Xylene	ND	ppbv	0.80	09/02/04 16:43	MTG	95-47-6		
Styrene	ND	ppbv	0.85	09/02/04 16:43	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.85	09/02/04 16:43	MTG	78-93-3		
Carbon disulfide	ND	ppbv	0.77	09/02/04 16:43	MTG	75-15-0		
Naphthalene	2.3	ppbv	0.77	09/02/04 16:43	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.3	09/02/04 16:43	MTG	1330-20-7		

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Lab Project Number: 1094213
Client Project ID: Peoples Gas-Hawthorne 29168

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1094213
Client Project ID: Peoples Gas-Hawthorne 29168

QC Batch: 115491 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 105995377 105995385

METHOD BLANK: 106019292
Associated Lab Samples: 105995377 105995385

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 106019334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	8.139	81	
1,1-Dichloroethane	ppbv	10.60	8.561	81	
1,1,1-Trichloroethane	ppbv	10.50	8.933	85	
Benzene	ppbv	10.70	9.070	85	
Trichloroethene	ppbv	10.40	9.766	94	
Toluene	ppbv	10.60	9.399	89	
Tetrachloroethene	ppbv	10.40	10.40	100	
Ethylbenzene	ppbv	10.60	9.606	91	
m&p-Xylene	ppbv	21.00	19.13	91	
o-Xylene	ppbv	10.50	9.439	90	

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QUALITY CONTROL DATA

Lab Project Number: 1094213
Client Project ID: Peoples Gas-Hawthorne 29168

LABORATORY CONTROL SAMPLE: 106019334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	9.583	91	
2-Butanone (MEK)	ppbv	10.50	11.82	113	
Carbon disulfide	ppbv	10.00	8.553	86	
Naphthalene	ppbv	10.00	8.179	82	

SAMPLE DUPLICATE: 106019318

Parameter	Units	105995377 Result	DUP Result	RPD	Footnotes
Chloromethane	ppbv	ND	ND	NC	
1,1-Dichloroethane	ppbv	7.800	5.700	32	1
1,1,1-Trichloroethane	ppbv	41.00	99.00	83	1,2
Benzene	ppbv	20.00	52.00	90	1,2
Trichloroethene	ppbv	20.00	14.00	34	1
Toluene	ppbv	24.00	18.00	30	
Tetrachloroethene	ppbv	4.300	3.000	38	1
Ethylbenzene	ppbv	59.00	130.0	74	1,2
m&p-Xylene	ppbv	ND	52.00	0	1,2
o-Xylene	ppbv	22.00	64.00	99	1,2
Styrene	ppbv	0.9900	0.6500	41	1,3
2-Butanone (MEK)	ppbv	ND	ND	NC	
Carbon disulfide	ppbv	4.000	2.900	34	1
Naphthalene	ppbv	390.0	2000	133	1,2

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nelac

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Fax: 612.607.6444

Lab Project Number: 1094213
Client Project ID: Peoples Gas-Hawthorne 29168

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
[1]	The calculated RPD was outside QC acceptance limits.
[2]	The compound concentration exceeds the calibration range. The result should be considered an estimate.
[3]	The compound was detected below the reporting limit. The result should be considered an estimate.

Date: 09/08/04

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1094213
Project Name: Peoples Gas-Hawthorne 29

Lab Sample No: 105995377
Client Sample ID: HAS-VOC-A-082604

ProjSampleNum: 1094213-001
Matrix: Air

Date Collected: 08/26/04 10:56
Date Received: 08/27/04 9:10

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	227 J	ug/m3	83	09/02/04 17:41 MTG	71-55-6	
1,1-Dichloroethane	32.1 J	ug/m3	3	09/02/04 17:41 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.4	09/02/04 17:41 MTG	78-93-3	
Benzene	64.9 J	ug/m3	49	09/02/04 17:41 MTG	71-43-2	
Carbon disulfide	12.7 J	ug/m3	2.3	09/02/04 17:41 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.5	09/02/04 17:41 MTG	74-87-3	
Ethylbenzene	260 J	ug/m3	66	09/02/04 17:41 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	130 UJ	09/02/04 17:41 MTG		
Naphthalene	2080 J	ug/m3	75	09/02/04 17:41 MTG	91-20-3	
o-Xylene	97.1 J	ug/m3	66	09/02/04 17:41 MTG	95-47-6	
Styrene	4.29 J	ug/m3	3.4	09/02/04 17:41 MTG	100-42-5	
Tetrachloroethene	29.6 J	ug/m3	5.1	09/02/04 17:41 MTG	127-18-4	
Toluene	91.9	ug/m3	2.8	09/02/04 17:41 MTG	108-88-3	
Trichloroethene	109 J	ug/m3	4	09/02/04 17:41 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	190 UJ	09/02/04 17:41 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

J=estimated value; poor duplicate results. SFA
UJ= estimated non-detect value; poor duplicate results. SFA

SUPPLEMENTAL REPORT
Units Conversion Request

Date: 9/9/2004

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1094213
Project Name: Peoples Gas-Hawthorne 29

Lab Sample No: 105995385
Client Sample ID: HAS-VOC-B-082604

ProjSampleNum: 1094213-002
Matrix: Air

Date Collected: 08/26/04 10:51
Date Received: 08/27/04 9:10

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	ND	ug/m3	4.4	09/02/04 16:43 MTG	71-55-6	
1,1-Dichloroethane	ND	ug/m3	3.3	09/02/04 16:43 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.5	09/02/04 16:43 MTG	78-93-3	
Benzene	ND	ug/m3	2.6	09/02/04 16:43 MTG	71-43-2	
Carbon disulfide	ND	ug/m3	2.4	09/02/04 16:43 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	09/02/04 16:43 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.5	09/02/04 16:43 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.6	09/02/04 16:43 MTG		
Naphthalene	12.2	ug/m3	4.1	09/02/04 16:43 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.5	09/02/04 16:43 MTG	95-47-6	
Styrene	ND	ug/m3	3.7	09/02/04 16:43 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.5	09/02/04 16:43 MTG	127-18-4	
Toluene	ND	ug/m3	3.1	09/02/04 16:43 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.4	09/02/04 16:43 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	10	09/02/04 16:43 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 9/9/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1094213

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE- SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-029-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS- HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Point	Sample Designator	Sample Event: Round	Year	Sample ~~Depth~~ START ~~(in feet)~~ DS: ~~From~~ DATE	~~To~~ TIME	Sample END ~~Collected~~ DS: Date	Time	Sample Type Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE							FINAL VACUUM	Remarks
HAS-VOC-A-082604			–	–	8/26/04	1055	8/26/04	1056			X	1	X		10	3	9	9	5	3	7 0	CANISTER #: 728
HAS-VOC-B-082604			–	–	8/26/04	1050	8/26/04	1051			X	1	X						3	8	5 0	736

8/26/04

PLEASE FIND: 1 BOX

Sampler (signature): D Soft

Sampler (signature):

Custody Seal Number: 082604PACE-001, 082604PACE-002

Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT.

Relinquished By (signature):	Date/Time	Received By (signature):	Date/Time
1. D Soft	8/26/04 1200	Kate Anderson	8/26/04 9:10
2.			

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt:

Laboratory Comments:

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SEP 30 2004
Burns & McDonnell
Oak Brook, IL

September 28, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1094575
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on September 3, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137

Wisconsin Certification #: 9999407970

Illinois Certification #: 200011

Enclosures

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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1094575
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 106021413 ProjSampleNum: 1094575-001 Date Collected: 09/02/04 12:21
Client Sample ID: HAS-VOC-A-090204 Matrix: Air Date Received: 09/03/04 9:14

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	721	ug/m3	83	09/25/04 4:03 MTG	71-55-6	
1,1-Dichloroethane	15.2	ug/m3	3.2	09/25/04 4:03 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.4	09/25/04 4:03 MTG	78-93-3	
Benzene	211	ug/m3	49	09/25/04 4:03 MTG	71-43-2	
Carbon disulfide	5.38	ug/m3	2.3	09/25/04 4:03 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	09/25/04 4:03 MTG	74-87-3	
Ethylbenzene	795	ug/m3	66	09/25/04 4:03 MTG	100-41-4	
m&p-Xylene	225	ug/m3	130	09/25/04 4:03 MTG		
Naphthalene	12200	ug/m3	1300	09/25/04 4:03 MTG	91-20-3	
o-Xylene	335	ug/m3	66	09/25/04 4:03 MTG	95-47-6	
Styrene	6.5	ug/m3	3.5	09/25/04 4:03 MTG	100-42-5	
Tetrachloroethene	82.7	ug/m3	5.3	09/25/04 4:03 MTG	127-18-4	
Toluene	69	ug/m3	2.9	09/25/04 4:03 MTG	108-88-3	
Trichloroethene	137	ug/m3	82	09/25/04 4:03 MTG	79-01-6	
Xylene (Total)	574	ug/m3	190	09/25/04 4:03 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1094575
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 106021421 ProjSampleNum: 1094575-002 Date Collected: 09/02/04 12:16
Client Sample ID: HAS-VOC-B-090204 Matrix: Air Date Received: 09/03/04 9:14

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	47.7	ug/m3	4.3	09/25/04 5:10 MTG	71-55-6	
1,1-Dichloroethane	5.76	ug/m3	3.2	09/25/04 5:10 MTG	75-34-3	
2-Butanone (MEK)	10.2	ug/m3	2.4	09/25/04 5:10 MTG	78-93-3	
Benzene	ND	ug/m3	2.5	09/25/04 5:10 MTG	71-43-2	
Carbon disulfide	4.12	ug/m3	2.3	09/25/04 5:10 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	09/25/04 5:10 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.4	09/25/04 5:10 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.6	09/25/04 5:10 MTG		
Naphthalene	495	ug/m3	80	09/25/04 5:10 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.4	09/25/04 5:10 MTG	95-47-6	
Styrene	ND	ug/m3	3.5	09/25/04 5:10 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.3	09/25/04 5:10 MTG	127-18-4	
Toluene	ND	ug/m3	2.9	09/25/04 5:10 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4.2	09/25/04 5:10 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	9.7	09/25/04 5:10 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1094575
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 106021413 | Project Sample Number: 1094575-001 | Date Collected: 09/02/04 12:21
Client Sample ID: HAS-VOC-A-090204 | Matrix: Air | Date Received: 09/03/04 09:14

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.74	09/25/04 04:03	MTG	74-87-3		
1,1-Dichloroethane	3.7	ppbv	0.77	09/25/04 04:03	MTG	75-34-3		
1,1,1-Trichloroethane	130	ppbv	15.	09/25/04 04:03	MTG	71-55-6		
Benzene	65.	ppbv	15.	09/25/04 04:03	MTG	71-43-2		
Trichloroethene	25.	ppbv	15.	09/25/04 04:03	MTG	79-01-6		
Toluene	18.	ppbv	0.77	09/25/04 04:03	MTG	108-88-3		
Tetrachloroethene	12.	ppbv	0.77	09/25/04 04:03	MTG	127-18-4		
Ethylbenzene	180	ppbv	15.	09/25/04 04:03	MTG	100-41-4		
m&p-Xylene	51.	ppbv	30.	09/25/04 04:03	MTG			
o-Xylene	76.	ppbv	15.	09/25/04 04:03	MTG	95-47-6		
Styrene	1.5	ppbv	0.81	09/25/04 04:03	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.81	09/25/04 04:03	MTG	78-93-3		
Carbon disulfide	1.7	ppbv	0.74	09/25/04 04:03	MTG	75-15-0		
Naphthalene	2300	ppbv	240	09/25/04 04:03	MTG	91-20-3		
Xylene (Total)	130	ppbv	44.	09/25/04 04:03	MTG	1330-20-7		

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Lab Project Number: 1094575
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 106021421
Client Sample ID: HAS-VOC-B-090204

Project Sample Number: 1094575-002
Matrix: Air

Date Collected: 09/02/04 12:16
Date Received: 09/03/04 09:14

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.74	09/25/04 05:10	MTG	74-87-3		
1,1-Dichloroethane	1.4	ppbv	0.77	09/25/04 05:10	MTG	75-34-3		
1,1,1-Trichloroethane	8.6	ppbv	0.77	09/25/04 05:10	MTG	71-55-6		
Benzene	ND	ppbv	0.77	09/25/04 05:10	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.77	09/25/04 05:10	MTG	79-01-6		
Toluene	ND	ppbv	0.77	09/25/04 05:10	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.77	09/25/04 05:10	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.77	09/25/04 05:10	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.5	09/25/04 05:10	MTG			
o-Xylene	ND	ppbv	0.77	09/25/04 05:10	MTG	95-47-6		
Styrene	ND	ppbv	0.81	09/25/04 05:10	MTG	100-42-5		
2-Butanone (MEK)	3.4	ppbv	0.81	09/25/04 05:10	MTG	78-93-3		
Carbon disulfide	1.3	ppbv	0.74	09/25/04 05:10	MTG	75-15-0		
Naphthalene	93.	ppbv	15.	09/25/04 05:10	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.2	09/25/04 05:10	MTG	1330-20-7		

Date: 09/28/04

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Fax: 612.607.6444

Lab Project Number: 1094575
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1094575
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 116637 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 106021413 106021421

METHOD BLANK: 106080740
Associated Lab Samples: 106021413 106021421

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 106080757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	9.348	93	
1,1-Dichloroethane	ppbv	10.60	11.62	110	
1,1,1-Trichloroethane	ppbv	10.50	11.36	108	
Benzene	ppbv	10.70	10.17	95	
Trichloroethene	ppbv	10.40	11.84	114	
Toluene	ppbv	10.60	9.699	92	
Tetrachloroethene	ppbv	10.40	11.77	113	
Ethylbenzene	ppbv	10.60	10.25	97	
m&p-Xylene	ppbv	21.00	25.75	123	
o-Xylene	ppbv	10.50	13.32	127	

Date: 09/28/04

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QUALITY CONTROL DATA

Lab Project Number: 1094575
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 106080757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	12.06	115	
2-Butanone (MEK)	ppbv	10.50	10.95	104	
Carbon disulfide	ppbv	10.00	8.834	88	
Naphthalene	ppbv	10.00	9.821	98	

Date: 09/28/04

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Lab Project Number: 1094575
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

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Burns & McDonnell
SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1094575

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-030-2004
Lab. Reference No. or Episode No.:

Project Number: 29168

Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): ~~From~~ START	Sample Depth (in feet): ~~To~~ TIME	Sample ~~Collected~~: Date	Sample ~~Collected~~: Time	Sample Type / Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOC + NAPHTHALENE					Final Vacuum	Remarks
HAS-	VOC-	A-090204	—	—	9/2/04	1220	9/2/04	1221			X	1	X		6021413			0	CANISTER # 585
HAS-	VOC-	B-090204	—	—	9/2/04	1215	9/2/04	1216			X	1	X		1421			0	015

9/2/04

PLEASE FIND:
1 BOX

Sampler (signature):

Sampler (signature):

Custody Seal Number
090204 PACE-001
090204 PACE-002

Special Instructions: * ANALYZE FOR LIST OF PARAMETERS IN WORK ORDER #29168. STANDARD TAT.

Relinquished By (signature) 1.
Date/Time 9/2/04 1330
Received By (signature): PACE
Date/Time 9-3-04 0914

Relinquished By (signature): 2.
Date/Time
Received By (signature):
Date/Time

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt: AM

Laboratory Comments:

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1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

RECEIVED
SEP 30 2004
Burns & McDonnell
Oak Brook, IL

September 28, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1094834
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on September 10, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137

Wisconsin Certification #: 9999407970

Illinois Certification #: 200011

Enclosures

REPORT OF LABORATORY ANALYSIS

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Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1094834
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 106041908
Client Sample ID: HAS-VOC-A-090904

ProjSampleNum: 1094834-001
Matrix: Air

Date Collected: 09/09/04 11:31
Date Received: 09/10/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	122	ug/m3	4.1	09/25/04 1:48 MTG	71-55-6	
1,1-Dichloroethane	3.66	ug/m3	3	09/25/04 1:48 MTG	75-34-3	
2-Butanone (MEK)	3.6	ug/m3	2.4	09/25/04 1:48 MTG	78-93-3	
Benzene	32.5	ug/m3	2.4	09/25/04 1:48 MTG	71-43-2	
Carbon disulfide	3.13	ug/m3	2.3	09/25/04 1:48 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.5	09/25/04 1:48 MTG	74-87-3	
Ethylbenzene	97.1	ug/m3	3.3	09/25/04 1:48 MTG	100-41-4	
m&p-Xylene	43.7	ug/m3	6.2	09/25/04 1:48 MTG		
Naphthalene	9590	ug/m3	300	09/25/04 1:48 MTG	91-20-3	
o-Xylene	44.1	ug/m3	3.3	09/25/04 1:48 MTG	95-47-6	
Styrene	ND	ug/m3	3.4	09/25/04 1:48 MTG	100-42-5	
Tetrachloroethene	10.3	ug/m3	5.1	09/25/04 1:48 MTG	127-18-4	
Toluene	27.2	ug/m3	2.8	09/25/04 1:48 MTG	108-88-3	
Trichloroethene	31.7	ug/m3	4	09/25/04 1:48 MTG	79-01-6	
Xylene (Total)	88.3	ug/m3	9.3	09/25/04 1:48 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

Date: 9/28/2004

SUPPLEMENTAL REPORT
Units Conversion Request

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Number: 1094834
Project Name: Peoples Gas-Hawthorne Re

Lab Sample No: 106041916
Client Sample ID: HAS-VOC-B-090904

ProjSampleNum: 1094834-002
Matrix: Air

Date Collected: 09/09/04 11:21
Date Received: 09/10/04 9:30

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	36.1	ug/m3	4.1	09/25/04 2:56 MTG	71-55-6	
1,1-Dichloroethane	6.58	ug/m3	3	09/25/04 2:56 MTG	75-34-3	
2-Butanone (MEK)	5.4	ug/m3	2.4	09/25/04 2:56 MTG	78-93-3	
Benzene	ND	ug/m3	2.4	09/25/04 2:56 MTG	71-43-2	
Carbon disulfide	4.75	ug/m3	2.3	09/25/04 2:56 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.5	09/25/04 2:56 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.3	09/25/04 2:56 MTG	100-41-4	
m&p-Xylene	8.83	ug/m3	6.2	09/25/04 2:56 MTG		
Naphthalene	128	ug/m3	3.8	09/25/04 2:56 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.3	09/25/04 2:56 MTG	95-47-6	
Styrene	ND	ug/m3	3.4	09/25/04 2:56 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.1	09/25/04 2:56 MTG	127-18-4	
Toluene	ND	ug/m3	2.8	09/25/04 2:56 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4	09/25/04 2:56 MTG	79-01-6	
Xylene (Total)	ND	ug/m3	9.3	09/25/04 2:56 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

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Lab Project Number: 1094834
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 106041908 | Project Sample Number: 1094834-001 | Date Collected: 09/09/04 11:31
Client Sample ID: HAS-VOC-A-090904 | Matrix: Air | Date Received: 09/10/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.72	09/25/04 01:48	MTG	74-87-3		
1,1-Dichloroethane	0.89	ppbv	0.74	09/25/04 01:48	MTG	75-34-3		
1,1,1-Trichloroethane	22.	ppbv	0.74	09/25/04 01:48	MTG	71-55-6		
Benzene	10.	ppbv	0.74	09/25/04 01:48	MTG	71-43-2		
Trichloroethene	5.8	ppbv	0.74	09/25/04 01:48	MTG	79-01-6		
Toluene	7.1	ppbv	0.74	09/25/04 01:48	MTG	108-88-3		
Tetrachloroethene	1.5	ppbv	0.74	09/25/04 01:48	MTG	127-18-4		
Ethylbenzene	22.	ppbv	0.74	09/25/04 01:48	MTG	100-41-4		
m&p-Xylene	9.9	ppbv	1.4	09/25/04 01:48	MTG			
o-Xylene	10.	ppbv	0.74	09/25/04 01:48	MTG	95-47-6		
Styrene	ND	ppbv	0.79	09/25/04 01:48	MTG	100-42-5		
2-Butanone (MEK)	1.2	ppbv	0.79	09/25/04 01:48	MTG	78-93-3		
Carbon disulfide	0.99	ppbv	0.72	09/25/04 01:48	MTG	75-15-0		
Naphthalene	1800	ppbv	57.	09/25/04 01:48	MTG	91-20-3		
Xylene (Total)	20.	ppbv	2.1	09/25/04 01:48	MTG	1330-20-7		

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Lab Project Number: 1094834
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 106041916
Client Sample ID: HAS-VOC-B-090904

Project Sample Number: 1094834-002
Matrix: Air

Date Collected: 09/09/04 11:21
Date Received: 09/10/04 09:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.72	09/25/04 02:56	MTG	74-87-3		
1,1-Dichloroethane	1.6	ppbv	0.74	09/25/04 02:56	MTG	75-34-3		
1,1,1-Trichloroethane	6.5	ppbv	0.74	09/25/04 02:56	MTG	71-55-6		
Benzene	ND	ppbv	0.74	09/25/04 02:56	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.74	09/25/04 02:56	MTG	79-01-6		
Toluene	ND	ppbv	0.74	09/25/04 02:56	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.74	09/25/04 02:56	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.74	09/25/04 02:56	MTG	100-41-4		
m&p-Xylene	2.0	ppbv	1.4	09/25/04 02:56	MTG			
o-Xylene	ND	ppbv	0.74	09/25/04 02:56	MTG	95-47-6		
Styrene	ND	ppbv	0.79	09/25/04 02:56	MTG	100-42-5		
2-Butanone (MEK)	1.8	ppbv	0.79	09/25/04 02:56	MTG	78-93-3		
Carbon disulfide	1.5	ppbv	0.72	09/25/04 02:56	MTG	75-15-0		
Naphthalene	24.	ppbv	0.72	09/25/04 02:56	MTG	91-20-3		
Xylene (Total)	ND	ppbv	2.1	09/25/04 02:56	MTG	1330-20-7		

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Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1094834
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit

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QUALITY CONTROL DATA

Lab Project Number: 1094834
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 116637
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15
Associated Lab Samples: 106041908 106041916

METHOD BLANK: 106080740
Associated Lab Samples: 106041908 106041916

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	
Xylene (Total)	ppbv	ND	1.5	

LABORATORY CONTROL SAMPLE: 106080757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	9.348	93	
1,1-Dichloroethane	ppbv	10.60	11.62	110	
1,1,1-Trichloroethane	ppbv	10.50	11.36	108	
Benzene	ppbv	10.70	10.17	95	
Trichloroethene	ppbv	10.40	11.84	114	
Toluene	ppbv	10.60	9.699	92	
Tetrachloroethene	ppbv	10.40	11.77	113	
Ethylbenzene	ppbv	10.60	10.25	97	
m&p-Xylene	ppbv	21.00	25.75	123	
o-Xylene	ppbv	10.50	13.32	127	

Date: 09/28/04

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Fax: 612.607.6444

QUALITY CONTROL DATA

Lab Project Number: 1094834
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 106080757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Styrene	ppbv	10.50	12.06	115	
2-Butanone (MEK)	ppbv	10.50	10.95	104	
Carbon disulfide	ppbv	10.00	8.834	88	
Naphthalene	ppbv	10.00	9.821	98	

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Lab Project Number: 1094834
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

Date: 09/28/04

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1094834

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE-SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-031-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Point	Sample Designator	Sample Event: Round	Year	Sample ~~Depth~~ START ~~(in feet)~~ DUS: ~~From~~ DATE	~~To~~ DUS TIME	Sample END ~~Collected~~ DUS: Date	Time	Sample Type Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE						FINAL VACUUM	Remarks
HAS-VOC-A-090904			-	-	9/9/04	1130	9/9/04	1131			X	1	X	6	0	4	1	9	0	CANISTER #: 110
HAS-VOC-B-090904			-	-	9/9/04	1120	9/9/04	1121			X	1	X			1	9	1	6	0	254

9/9/04

PLEASE FIND: 1 BOX

Sampler (signature):

Sampler (signature):

Custody Seal Number: 090904 PACE-001, 090904 PACE-002

Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168-001.

Relinquished By (signature):	Date/Time	Received By (signature):	Date/Time
1.	9/9/04 1300	PACE	9-10-04 09:30
2.			

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt: Ambient

Laboratory Comments:

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RECEIVED
OCT 07 2004
Burns & McDonnell
Oak Brook, IL

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

October 05, 2004

Ms. Joan Gonzalez
Burns & McDonnell
2601 W. 22nd St.
Oak Brook, IL 60523

RE: Lab Project Number: 1095260
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Dear Ms. Gonzalez:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2004. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Daryl Peterson
Daryl.Peterson@pacelabs.com
Project Manager

Minnesota Certification #: 027-053-137

Wisconsin Certification #: 9999407970

Illinois Certification #: 200011

Enclosures

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1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Numbe: 1095260
Project Name Peoples Gas-Hawthorne Reg

Lab Sample No: 106070675 | ProjSampleNum 1095260-001 | Date Collectec 09/16/04 11:41
Client Sample ID: HAS-VOC-A-091604 | Matrix: Air | Date Received 09/17/04 9:00

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	777	ug/m3	89	09/29/04 23:4 MTG	71-55-6	
1,1-Dichloroethane	21.8	ug/m3	3.3	09/29/04 23:4 MTG	75-34-3	
2-Butanone (MEK)	4.8	ug/m3	2.5	09/29/04 23:4 MTG	78-93-3	
Benzene	779	ug/m3	52	09/29/04 23:4 MTG	71-43-2	
Carbon disulfide	5.7	ug/m3	2.4	09/29/04 23:4 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.6	09/29/04 23:4 MTG	74-87-3	
Ethylbenzene	1680	ug/m3	71	09/29/04 23:4 MTG	100-41-4	
m&p-Xylene	2160	ug/m3	140	09/29/04 23:4 MTG		
Naphthalene	25000	ug/m3	80	09/29/04 23:4 MTG	91-20-3	1
o-Xylene	1020	ug/m3	71	09/29/04 23:4 MTG	95-47-6	
Styrene	6.06	ug/m3	3.7	09/29/04 23:4 MTG	100-42-5	
Tetrachloroethene	96.5	ug/m3	5.5	09/29/04 23:4 MTG	127-18-4	
Toluene	111	ug/m3	3.1	09/29/04 23:4 MTG	108-88-3	
Trichloroethene	191	ug/m3	87	09/29/04 23:4 MTG	79-01-6	
Xylene (Total)	3180	ug/m3	200	09/29/04 23:4 MTG	1330-20-7	

DISCLAIMER: These results have been converted to the units shown from the original u measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not according to EPA rounding rules. THC is quantitated based on the average response of several compounds; the nominal molecular weight of THC used for units conversion average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

Date: 10/5/2004

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Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Numbe: 1095260
Project Name Peoples Gas-Hawthorne Reg

Lab Sample No: 106070683
Client Sample ID: HAS-VOC-B-091604

ProjSampleNum 1095260-002
Matrix: Air

Date Collectec 09/16/04 11:31
Date Receivec 09/17/04 9:00

Parameters	Results	Units	Report Limit	Analyzed	CAS No.	Ftnote
Air						
TO-15						
1,1,1-Trichloroethane	66.6	ug/m3	4.1	09/29/04 22:5 MTG	71-55-6	
1,1-Dichloroethane	14.4	ug/m3	3	09/29/04 22:5 MTG	75-34-3	
2-Butanone (MEK)	ND	ug/m3	2.4	09/29/04 22:5 MTG	78-93-3	
Benzene	ND	ug/m3	2.4	09/29/04 22:5 MTG	71-43-2	
Carbon disulfide	5.7	ug/m3	2.3	09/29/04 22:5 MTG	75-15-0	
Chloromethane	ND	ug/m3	1.5	09/29/04 22:5 MTG	74-87-3	
Ethylbenzene	ND	ug/m3	3.3	09/29/04 22:5 MTG	100-41-4	
m&p-Xylene	ND	ug/m3	6.2	09/29/04 22:5 MTG		
Naphthalene	95.9	ug/m3	3.8	09/29/04 22:5 MTG	91-20-3	
o-Xylene	ND	ug/m3	3.3	09/29/04 22:5 MTG	95-47-6	
Styrene	ND	ug/m3	3.4	09/29/04 22:5 MTG	100-42-5	
Tetrachloroethene	ND	ug/m3	5.1	09/29/04 22:5 MTG	127-18-4	
Toluene	ND	ug/m3	2.8	09/29/04 22:5 MTG	108-88-3	
Trichloroethene	ND	ug/m3	4	09/29/04 22:5 MTG	79-01-6	

DISCLAIMER: These results have been converted to the units shown from the original u measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not according to EPA rounding rules. THC is quantitated based on the average response of several compounds; the nominal molecular weight of THC used for units conversion average of the molecular weights of the compounds used for quantitation.

SUPPLEMENTAL REPORT
Units Conversion Request

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1700 Elm Street
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Phone: 612.607.1700
Fax: 612.607.6444

Client: Burns & McDonnell
Phone: 630-990-0300

Lab Project Numbe: 1095260
Project Name Peoples Gas-Hawthorne Reg

PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted report:

[1 The compound concentration exceeds the calibration range. The result should be consid
estimate.

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Lab Project Number: 1095260
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 106070675
Client Sample ID: HAS-VOC-A-091604

Project Sample Number: 1095260-001
Matrix: Air

Date Collected: 09/16/04 11:41
Date Received: 09/17/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.77	09/29/04 23:48	MTG	74-87-3		
1,1-Dichloroethane	5.3	ppbv	0.80	09/29/04 23:48	MTG	75-34-3		
1,1,1-Trichloroethane	140	ppbv	16.	09/29/04 23:48	MTG	71-55-6		
Benzene	240	ppbv	16.	09/29/04 23:48	MTG	71-43-2		
Trichloroethene	35.	ppbv	16.	09/29/04 23:48	MTG	79-01-6		
Toluene	29.	ppbv	0.80	09/29/04 23:48	MTG	108-88-3		
Tetrachloroethene	14.	ppbv	0.80	09/29/04 23:48	MTG	127-18-4		
Ethylbenzene	380	ppbv	16.	09/29/04 23:48	MTG	100-41-4		
m&p-Xylene	490	ppbv	31.	09/29/04 23:48	MTG			
o-Xylene	230	ppbv	16.	09/29/04 23:48	MTG	95-47-6		
Styrene	1.4	ppbv	0.85	09/29/04 23:48	MTG	100-42-5		
2-Butanone (MEK)	1.6	ppbv	0.85	09/29/04 23:48	MTG	78-93-3		
Carbon disulfide	1.8	ppbv	0.77	09/29/04 23:48	MTG	75-15-0		
Naphthalene	4700	ppbv	15.	09/29/04 23:48	MTG	91-20-3	1	
Xylene (Total)	720	ppbv	46.	09/29/04 23:48	MTG	1330-20-7		

Date: 10/05/04

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Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1095260
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

Lab Sample No: 106070683 | Project Sample Number: 1095260-002 | Date Collected: 09/16/04 11:31
Client Sample ID: HAS-VOC-B-091604 | Matrix: Air | Date Received: 09/17/04 09:00

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Air								
TO15	Method: TO-15							
Chloromethane	ND	ppbv	0.72	09/29/04 22:50	MTG	74-87-3		
1,1-Dichloroethane	3.5	ppbv	0.74	09/29/04 22:50	MTG	75-34-3		
1,1,1-Trichloroethane	12.	ppbv	0.74	09/29/04 22:50	MTG	71-55-6		
Benzene	ND	ppbv	0.74	09/29/04 22:50	MTG	71-43-2		
Trichloroethene	ND	ppbv	0.74	09/29/04 22:50	MTG	79-01-6		
Toluene	ND	ppbv	0.74	09/29/04 22:50	MTG	108-88-3		
Tetrachloroethene	ND	ppbv	0.74	09/29/04 22:50	MTG	127-18-4		
Ethylbenzene	ND	ppbv	0.74	09/29/04 22:50	MTG	100-41-4		
m&p-Xylene	ND	ppbv	1.4	09/29/04 22:50	MTG			
o-Xylene	ND	ppbv	0.74	09/29/04 22:50	MTG	95-47-6		
Styrene	ND	ppbv	0.79	09/29/04 22:50	MTG	100-42-5		
2-Butanone (MEK)	ND	ppbv	0.79	09/29/04 22:50	MTG	78-93-3		
Carbon disulfide	1.8	ppbv	0.72	09/29/04 22:50	MTG	75-15-0		
Naphthalene	18.	ppbv	0.72	09/29/04 22:50	MTG	91-20-3		

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Lab Project Number: 1095260
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

PARAMETER FOOTNOTES

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
[1]	The compound concentration exceeds the calibration range. The result should be considered an estimate.

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QUALITY CONTROL DATA

Lab Project Number: 1095260
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QC Batch: 116692 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15
Associated Lab Samples: 106070675 106070683

METHOD BLANK: 106081698
Associated Lab Samples: 106070675 106070683

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Chloromethane	ppbv	ND	0.50	
1,1-Dichloroethane	ppbv	ND	0.52	
1,1,1-Trichloroethane	ppbv	ND	0.52	
Benzene	ppbv	ND	0.52	
Trichloroethene	ppbv	ND	0.52	
Toluene	ppbv	ND	0.52	
Tetrachloroethene	ppbv	ND	0.52	
Ethylbenzene	ppbv	ND	0.52	
m&p-Xylene	ppbv	ND	1.0	
o-Xylene	ppbv	ND	0.52	
Styrene	ppbv	ND	0.55	
2-Butanone (MEK)	ppbv	ND	0.55	
Carbon disulfide	ppbv	ND	0.50	
Naphthalene	ppbv	ND	0.50	

LABORATORY CONTROL SAMPLE: 106081706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chloromethane	ppbv	10.10	10.34	102	
1,1-Dichloroethane	ppbv	10.60	11.44	108	
1,1,1-Trichloroethane	ppbv	10.50	11.38	108	
Benzene	ppbv	10.70	13.08	122	
Trichloroethene	ppbv	10.40	10.87	105	
Toluene	ppbv	10.60	10.58	100	
Tetrachloroethene	ppbv	10.40	11.83	114	
Ethylbenzene	ppbv	10.60	11.53	109	
m&p-Xylene	ppbv	21.00	24.19	115	
o-Xylene	ppbv	10.50	12.05	115	
Styrene	ppbv	10.50	11.74	112	

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Phone: 612.607.1700
Fax: 612.607.6444

QUALITY CONTROL DATA

Lab Project Number: 1095260
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

LABORATORY CONTROL SAMPLE: 106081706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ppbv	10.50	10.09	96	
Carbon disulfide	ppbv	10.00	9.174	92	
Naphthalene	ppbv	10.00	10.01	100	

SAMPLE DUPLICATE: 106081714

Parameter	Units	106063506 Result	DUP Result	RPD	Footnotes
Chloromethane	ppbv	ND	ND	NC	
1,1-Dichloroethane	ppbv	ND	ND	NC	
1,1,1-Trichloroethane	ppbv	ND	ND	NC	
Benzene	ppbv	ND	ND	NC	
Trichloroethene	ppbv	ND	ND	NC	
Toluene	ppbv	ND	ND	NC	
Tetrachloroethene	ppbv	ND	ND	NC	
Ethylbenzene	ppbv	ND	ND	NC	
m&p-Xylene	ppbv	ND	ND	NC	
o-Xylene	ppbv	ND	ND	NC	
Styrene	ppbv	ND	ND	NC	
2-Butanone (MEK)	ppbv	2.000	2.000	0	
Carbon disulfide	ppbv	ND	ND	NC	

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Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Lab Project Number: 1095260
Client Project ID: Peoples Gas-Hawthorne Reg. Sta

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference

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urns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

1095260

& McDonnell Engineering
/. 22nd St
'ook, Illinois 60523
(630) 990-0300 Fax: (630) 990-0301

on: JOAN GONZALEZ

Laboratory: PACE ANALYTICAL
Address: 1700 ELM STREET SE - SUITE 200
City/State/Zip: MINNEAPOLIS, MN 55414
Telephone: (612) 607-1700

Document Control No: HAS-032-2004
Lab. Reference No. or Episode No.:

t Number: 29168
ame: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: or Name	Sample Point	Sample Designator	Sample Event: Round	Year	Sample ~~Depth~~ ~~(in feet)~~ START ~~From~~ DATE	~~To~~ TIME	Sample ~~Collected~~ END DATE	Time	Sample Type: Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE						FINAL VACUUM	Remarks
- VOC-A-091604			—	—	9/16/04	1140	9/16/04	1141			X	1	X		607	0675			0	CANISTER #: 651
S-VOC-B-091604			—	—	9/16/04	1130	9/16/04	1131			X	1	X			0683			0	460

9/16/04

PLEASE FIND: 1 BOX

ler (signature):

Sampler (signature):

Custody Seal Number: 091604PACE-001, 091604PACE-002

Special Instructions: *USE LIST OF PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT.

quished By (signature): | Date/Time: 9/16/04 1300 | Received By (signature): PACE | Date/Time: 9-17-04 09:00

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt:

quished By (signature): | Date/Time | Received By (signature): | Date/Time

Laboratory Comments:

SEVERN TRENT STL

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Tel: 865 291 3000 Fax: 865 584 4315
www.stl-inc.com

ANALYTICAL REPORT

REVISED

PROJECT NO. 29168

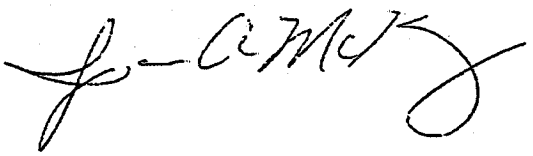
Peoples Gas - Hawthorne

Lot #: H4I240215

Diane Saftic

Burns & McDonnell
2601 West 22nd Street
Oak Brook, IL 60523-1229

SEVERN TRENT LABORATORIES, INC.



Jamie A. McKinney
Project Manager

October 5, 2004

ANALYTICAL METHODS SUMMARY

H4I240215

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H4I240215

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GQ28G	001	HAS-VOC-A-092304	09/23/04	11:15
GQ28J	002	HAS-VOC-B-092304	09/23/04	11:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H4I240215
REVISED

This report has been revised to a different format.

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation was included with the original report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

STL Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Cert. #04-041-0, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Cert. #PH-0223, Florida DOH Cert. #E87177, Georgia DNR Cert. #906 (SDWA, expires 6/24/05), Hawaii DOH, Illinois EPA Cert. #000687, Indiana DOH Cert. #C-TN-02, Iowa DNR Cert. #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab ID #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH Cert. #LA030024, Maryland DHMH Cert. #277, Massachusetts DEP Cert. #M-TN009, Michigan DEQ Lab ID #9933, New Jersey DEP Cert. #TN001, New York DOH Lab #10781, North Carolina DPH Lab ID #21705, North Carolina DEHNR Cert. #64, Oklahoma DEQ ID #9415, Pennsylvania DEP Cert. #68-576, South Carolina DHEC Lab ID #84001001, Tennessee DOH Lab ID #02014, Utah DOH Cert. # QUAN3, Virginia DGS Lab ID #00165, Washington DOE Lab #C120, Wisconsin DNR Lab ID #998044300, US Army Corps of Engineers, Naval Facilities Engineering Service Center, US EPA Perchlorate Approval and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

BURNS & MCDONNELL

Client Sample ID: HAS-VOC-A-092304

GC/MS Volatiles

Lot-Sample #...: H4I240215-001
Date Sampled...: 09/23/04
Prep Date.....: 09/28/04
Prep Batch #...: 4273054
Dilution Factor: 15.1

Work Order #...: GQ28G1AA
Date Received..: 09/24/04
Analysis Date..: 09/29/04

Method.....: EPA-2 TO-15

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	47	3.0	ppb(v/v)
2-Butanone (MEK)	ND	7.6	ppb(v/v)
Carbon disulfide	ND	3.0	ppb(v/v)
Chloromethane	ND	7.6	ppb(v/v)
1,1-Dichloroethane	6.6	3.0	ppb(v/v)
Ethylbenzene	110	3.0	ppb(v/v)
Naphthalene	150	3.0	ppb(v/v)
Styrene	ND	3.0	ppb(v/v)
Tetrachloroethene	ND	3.0	ppb(v/v)
Toluene	14	3.0	ppb(v/v)
1,1,1-Trichloroethane	60	3.0	ppb(v/v)
Trichloroethene	11	3.0	ppb(v/v)
m-Xylene & p-Xylene	30	3.0	ppb(v/v)
o-Xylene	43	3.0	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	97	(70 - 130)
Toluene-d8	103	(70 - 130)
4-Bromofluorobenzene	102	(70 - 130)

BURNS & MCDONNELL

Client Sample ID: HAS-VOC-A-092304

GC/MS Volatiles

Lot-Sample # H4I240215 - 001 Work Order # GQ28G1AA Matrix.....: AIR

Date Sampled...: 9/23/04
Prep Date.....: 9/28/04
Prep Batch #.....: 4273054
Dilution Factor.: 15.1

Date Received..: 9/24/04
Analysis Date... 9/29/04

Method.....: TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	490	13	ug/m3
Naphthalene	780	16	ug/m3
Benzene	150	9.8	ug/m3
Styrene	ND	13	ug/m3
Tetrachloroethene	ND	21	ug/m3
Toluene	54	12	ug/m3
1,1,1-Trichloroethane	330	17	ug/m3
Trichloroethene	57	16	ug/m3
o-Xylene	190	13	ug/m3
m-Xylene & p-Xylene	130	13	ug/m3
2-Butanone (MEK)	ND	23	ug/m3
Carbon disulfide	ND	9.5	ug/m3
Chloromethane	ND	16	ug/m3
1,1-Dichloroethane	27	12	ug/m3

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	97	70 - 130
Toluene-d8	103	70 - 130
4-Bromofluorobenzene	102	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

BURNS & MCDONNELL

Client Sample ID: HAS-VOC-B-092304

GC/MS Volatiles

Lot-Sample #...: H4I240215-002
Date Sampled...: 09/23/04
Prep Date.....: 09/28/04
Prep Batch #...: 4273054
Dilution Factor: 2.72

Work Order #...: GQ28J1AA
Date Received..: 09/24/04
Analysis Date..: 09/29/04

Method.....: EPA-2 TO-15

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.54	ppb(v/v)
2-Butanone (MEK)	ND	1.4	ppb(v/v)
Carbon disulfide	1.4	0.54	ppb(v/v)
Chloromethane	ND	1.4	ppb(v/v)
1,1-Dichloroethane	5.3	0.54	ppb(v/v)
Ethylbenzene	ND	0.54	ppb(v/v)
Naphthalene	ND	0.54	ppb(v/v)
Styrene	ND	0.54	ppb(v/v)
Tetrachloroethene	5.3	0.54	ppb(v/v)
Toluene	1.1	0.54	ppb(v/v)
1,1,1-Trichloroethane	50	0.54	ppb(v/v)
Trichloroethene	ND	0.54	ppb(v/v)
m-Xylene & p-Xylene	ND	0.54	ppb(v/v)
o-Xylene	ND	0.54	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(70 - 130)
Toluene-d8	102	(70 - 130)
4-Bromofluorobenzene	105	(70 - 130)

BURNS & MCDONNELL

Client Sample ID: HAS-VOC-B-092304

GC/MS Volatiles

Lot-Sample # H4I240215 - 002

Work Order # GQ28J1AA

Matrix.....: AIR

Date Sampled...: 9/23/04
Prep Date.....: 9/28/04
Prep Batch #.....: 4273054
Dilution Factor.: 2.72

Date Received..: 9/24/04
Analysis Date... 9/29/04

Method.....: TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	ND	2.4	ug/m3
Naphthalene	ND	2.9	ug/m3
Benzene	ND	1.8	ug/m3
Styrene	ND	2.3	ug/m3
Tetrachloroethene	36	3.7	ug/m3
Toluene	4.0	2.1	ug/m3
1,1,1-Trichloroethane	280	3.0	ug/m3
Trichloroethene	ND	3.0	ug/m3
o-Xylene	ND	2.4	ug/m3
m-Xylene & p-Xylene	ND	2.4	ug/m3
2-Butanone (MEK)	ND	4.1	ug/m3
Carbon disulfide	4.3	1.7	ug/m3
Chloromethane	ND	2.8	ug/m3
1,1-Dichloroethane	22	2.2	ug/m3

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	101	70 - 130
Toluene-d8	102	70 - 130
4-Bromofluorobenzene	105	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H4I240215
MB Lot-Sample #: H4I290000-054

Work Order #...: GRC1T1AA

Matrix.....: AIR

Prep Date.....: 09/28/04
Prep Batch #...: 4273054

Analysis Date..: 09/28/04
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Ethylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Naphthalene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Toluene	ND	0.20	ppb(v/v)	EPA-2 TO-15
o-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
m-Xylene & p-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Carbon disulfide	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloromethane	ND	0.50	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Styrene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
2-Butanone (MEK)	ND	0.20	ppb(v/v)	EPA-2 TO-15
		0.50	ppb(v/v)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	106	(70 - 130)
Toluene-d8	105	(70 - 130)
4-Bromofluorobenzene	102	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

BURNS & MCDONNELL

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H4I290000 - 054B Work Order # GRC1T1AA Matrix.....: AIR

Date Sampled...: 9/26/04
Prep Date.....: 9/28/04
Prep Batch #.....: 4273054
Dilution Factor.: 1

Date Received..: 9/28/04
Analysis Date... 9/28/04

Method.....: TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	ND	0.88	ug/m3
Naphthalene	ND	1.1	ug/m3
Benzene	ND	0.65	ug/m3
Styrene	ND	0.86	ug/m3
Tetrachloroethene	ND	1.4	ug/m3
Toluene	ND	0.76	ug/m3
1,1,1-Trichloroethane	ND	1.1	ug/m3
Trichloroethene	ND	1.1	ug/m3
o-Xylene	ND	0.88	ug/m3
m-Xylene & p-Xylene	ND	0.88	ug/m3
2-Butanone (MEK)	ND	1.5	ug/m3
Carbon disulfide	ND	0.63	ug/m3
Chloromethane	ND	1.0	ug/m3
1,1-Dichloroethane	ND	0.82	ug/m3

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	106	70 - 130
Toluene-d8	105	70 - 130
4-Bromofluorobenzene	102	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H4I240215 Work Order #...: GRC1T1AC Matrix.....: AIR
LCS Lot-Sample#: H4I290000-054
Prep Date.....: 09/28/04 Analysis Date..: 09/28/04
Prep Batch #...: 4273054
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**101**	**(70 - 130)**	**EPA-2 TO-15**
Chlorobenzene	**99**	**(70 - 130)**	**EPA-2 TO-15**
Benzene	**93**	**(70 - 130)**	**EPA-2 TO-15**
Trichloroethene	**96**	**(70 - 130)**	**EPA-2 TO-15**
Toluene	**96**	**(70 - 130)**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(70 - 130)
Toluene-d8	97	(70 - 130)
4-Bromofluorobenzene	97	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H4I240215 Work Order #...: GRC1T1AC Matrix.....: AIR
LCS Lot-Sample#: H4I290000-054
Prep Date.....: 09/28/04 Analysis Date..: 09/28/04
Prep Batch #...: 4273054
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
1,1-Dichloroethene	10.0	10.1	ppb(v/v)	101	EPA-2 TO-15
Chlorobenzene	10.0	9.94	ppb(v/v)	99	EPA-2 TO-15
Benzene	10.0	9.28	ppb(v/v)	93	EPA-2 TO-15
Trichloroethene	10.0	9.60	ppb(v/v)	96	EPA-2 TO-15
Toluene	10.0	9.59	ppb(v/v)	96	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(70 - 130)
Toluene-d8	97	(70 - 130)
4-Bromofluorobenzene	97	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

BURNS & MCDONNELL

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H4I290000 - 054C **Work Order #** GRC1T1AC **Matrix.....:** AIR

Date Sampled...: 9/26/04
Prep Date.....: 9/28/04
Prep Batch #.....: 4273054
Dilution Factor.: 1

Date Received..: 9/28/04
Analysis Date... 9/28/04

Method.....: TO-15

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS
1,1-Dichloroethene	40	41	ug/m3	101	70 - 130
Chlorobenzene	47	46	ug/m3	99	70 - 130
Benzene	32	30	ug/m3	93	70 - 130
Toluene	38	37	ug/m3	96	70 - 130
Trichloroethene	54	52	ug/m3	96	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	101	70 - 130
Toluene-d8	97	70 - 130
4-Bromofluorobenzene	97	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

H4I 240215

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: SEVERN TRENT LABORATORIES - KNOXVILLE
Address: 5815 MIDDLEBROOK PIKE
City/State/Zip: KNOXVILLE, TN 37921
Telephone: 865-291-3000

Document Control No: HAS-033-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth~~ START ~~(in feet)~~ DUS: ~~Front~~ DUS DATE	Sample ~~Depth~~ START ~~(in feet)~~ DUS: ~~To~~ DUS TIME	Sample Collected: Date	Sample Collected: Time	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: TO-15 / VOCs* + NAPHTHALENE						FINAL VACUUM	Remarks
HAS-VOC-A-092304			—	—	9/23/04	1115	9/23/04	1116			X	1	X						0	CANISTER #: 2643
HAS-VOC-B-092304			—	—	9/23/04	~~1100~~ 1100	9/23/04	1101			X	1	X						0	2839

9/23/04

Custody seals intact
received at ambient temp
BKD 9-24-04
1 BOX FEDX #
847942485365
2 CANS / NO FLOWS

PLEASE FIND:
1 BOX

Sampler (signature):

Sampler (signature):

Custody Seal Number: 092304STL-001, 092304STL-002

Special Instructions: * USE LIST OF PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT.

Relinquished By (signature): 1.
Date/Time: 9/23/04 1300
Received By (signature): Bryan Cameron
Date/Time: 92404 10:25

Ice Present in Container: Yes ☐ No ☒

Temperature Upon Receipt:

Relinquished By (signature): 2.
Date/Time:
Received By (signature):
Date/Time:

Laboratory Comments:

STL KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Client: BURNS + McDONNELL **Project:** _____ **Lot Number:** HHI240215

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	
2. Is the cooler temperature within limits? (North Carolina, 1668, 1613B: 0-4°C; VOST: 10°C) (Cooler temp should be used only if no temp blank.)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓		
10. Were samples received with ≥½ HT remaining?	✓			☐ 10a Holding time expired ☐ 10b <½ HT left	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For SOG water samples (1613B, 1668A, 8290, LR PAHs), do samples have visible solids present?			✓	If yes, was SOG notified? _____	
13. Are the coolers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished by client	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?	✓			☐ 15a Incomplete information	

Quote #: 60833 PM Instructions: _____

Sample Receiving Associate: [signature] Date: 9-24-04

QA026R14.doc, 7/12/04

SEVERN TRENT STL

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Tel: 865 291 3000 Fax: 865 584 4315
www.stl-inc.com

ANALYTICAL REPORT

REVISED

PROJECT NO. 29168

Peoples Gas - Hawthorne

Lot #: H4J060125

Diane Saftic

Burns & McDonnell
2601 West 22nd Street
Oak Brook, IL 60523-1229

SEVERN TRENT LABORATORIES, INC.

Jamie A. McKinney
Project Manager

October 12, 2004

ANALYTICAL METHODS SUMMARY

H4J060125

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H4J060125

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GRW8E	001	HAS-VOC-A-093004	09/30/04	13:21
GRW8H	002	HAS-VOC-B-093004	09/30/04	13:11

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
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- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H4J060125
REVISED

This report has been revised to a different format.

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation was included with the original report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

STL Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Cert. #04-041-0, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Cert. #PH-0223, Florida DOH Cert. #E87177, Georgia DNR Cert. #906 (SDWA, expires 6/24/05), Hawaii DOH, Illinois EPA Cert. #000687, Indiana DOH Cert. #C-TN-02, Iowa DNR Cert. #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab ID #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH Cert. #LA030024, Maryland DHMH Cert. #277, Massachusetts DEP Cert. #M-TN009, Michigan DEQ Lab ID #9933, New Jersey DEP Cert. #TN001, New York DOH Lab #10781, North Carolina DPH Lab ID #21705, North Carolina DEHNR Cert. #64, Oklahoma DEQ ID #9415, Pennsylvania DEP Cert. #68-576, South Carolina DHEC Lab ID #84001001, Tennessee DOH Lab ID #02014, Utah DOH Cert. # QUAN3, Virginia DGS Lab ID #00165, Washington DOE Lab #C120, Wisconsin DNR Lab ID #998044300, US Army Corps of Engineers, Naval Facilities Engineering Service Center, US EPA Perchlorate Approval and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

BURNS & MCDONNELL

Client Sample ID: HAS-VOC-A-093004

GC/MS Volatiles

Lot-Sample #...: H4J060125-001
Date Sampled...: 09/30/04
Prep Date.....: 10/05/04
Prep Batch #...: 4280564
Dilution Factor: 18.88

Work Order #...: GRW8E1AA
Date Received..: 10/01/04
Analysis Date..: 10/06/04

Method.....: EPA-2 TO-15

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Butanone (MEK)	ND	9.4	ppb(v/v)
Carbon disulfide	ND	3.8	ppb(v/v)
Chloromethane	ND	9.4	ppb(v/v)
1,1-Dichloroethane	5.4	3.8	ppb(v/v)
Ethylbenzene	170	3.8	ppb(v/v)
Naphthalene	330	3.8	ppb(v/v)
Styrene	ND	3.8	ppb(v/v)
Tetrachloroethene	11	3.8	ppb(v/v)
Toluene	15	3.8	ppb(v/v)
1,1,1-Trichloroethane	150	3.8	ppb(v/v)
Trichloroethene	44	3.8	ppb(v/v)
m-Xylene & p-Xylene	42	3.8	ppb(v/v)
o-Xylene	64	3.8	ppb(v/v)
Benzene	64	3.8	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	111	(70 - 130)
Toluene-d8	104	(70 - 130)
4-Bromofluorobenzene	108	(70 - 130)

BURNS & MCDONNELL

Client Sample ID: HAS-VOC-A-093004

GC/MS Volatiles

Lot-Sample # H4J060125 - 001 Work Order # GRW8E1AA Matrix.....: AIR

Date Sampled...: 9/30/04
Prep Date.....: 10/5/04
Prep Batch #.....: 4280564
Dilution Factor.: 18.88

Date Received..: 10/1/04
Analysis Date... 10/6/04

Method.....: TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	750	17	ug/m3
Naphthalene	1800	20	ug/m3
Benzene	210	12	ug/m3
Styrene	ND	16	ug/m3
Tetrachloroethene	73	26	ug/m3
Toluene	59	14	ug/m3
1,1,1-Trichloroethane	820	21	ug/m3
Trichloroethene	240	21	ug/m3
o-Xylene	280	17	ug/m3
m-Xylene & p-Xylene	190	17	ug/m3
2-Butanone (MEK)	ND	28	ug/m3
Carbon disulfide	ND	12	ug/m3
Chloromethane	ND	20	ug/m3
1,1-Dichloroethane	22	15	ug/m3

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	111	70 - 130
Toluene-d8	104	70 - 130
4-Bromofluorobenzene	108	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

BURNS & MCDONNELL

Client Sample ID: HAS-VOC-B-093004

GC/MS Volatiles

Lot-Sample #...: H4J060125-002
Date Sampled...: 09/30/04
Prep Date.....: 10/06/04
Prep Batch #...: 4285355
Dilution Factor: 5.72

Work Order #...: GRW8H1AA
Date Received..: 10/01/04
Analysis Date..: 10/06/04

Method.....: EPA-2 TO-15

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS
2-Butanone (MEK)	ND	2.9	ppb(v/v)
Carbon disulfide	1.7	1.1	ppb(v/v)
Chloromethane	ND	2.9	ppb(v/v)
1,1-Dichloroethane	6.4	1.1	ppb(v/v)
Ethylbenzene	ND	1.1	ppb(v/v)
Naphthalene	ND	1.1	ppb(v/v)
Styrene	ND	1.1	ppb(v/v)
Tetrachloroethene	ND	1.1	ppb(v/v)
Toluene	1.3	1.1	ppb(v/v)
1,1,1-Trichloroethane	130	1.1	ppb(v/v)
Trichloroethene	ND	1.1	ppb(v/v)
m-Xylene & p-Xylene	ND	1.1	ppb(v/v)
o-Xylene	ND	1.1	ppb(v/v)
Benzene	ND	1.1	ppb(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	104	(70 - 130)
Toluene-d8	105	(70 - 130)
4-Bromofluorobenzene	103	(70 - 130)

BURNS & MCDONNELL

Client Sample ID: HAS-VOC-B-093004

GC/MS Volatiles

Lot-Sample # H4J060125 - 002 **Work Order #** GRW8H1AA **Matrix.....:** AIR

Date Sampled...: 9/30/04 **Date Received..:** 10/1/04
Prep Date.....: 10/6/04 **Analysis Date...** 10/6/04
Prep Batch #.....: 4285355
Dilution Factor.: 5.72 **Method.....:** TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	ND	5.0	ug/m3
Naphthalene	ND	6.1	ug/m3
Benzene	ND	3.7	ug/m3
Styrene	ND	4.9	ug/m3
Tetrachloroethene	ND	7.9	ug/m3
Toluene	5.1	4.4	ug/m3
1,1,1-Trichloroethane	720	6.3	ug/m3
Trichloroethene	ND	6.2	ug/m3
o-Xylene	ND	5.0	ug/m3
m-Xylene & p-Xylene	ND	5.0	ug/m3
2-Butanone (MEK)	ND	8.5	ug/m3
Carbon disulfide	5.4	3.6	ug/m3
Chloromethane	ND	6.0	ug/m3
1,1-Dichloroethane	26	4.7	ug/m3

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	104	70 - 130
Toluene-d8	105	70 - 130
4-Bromofluorobenzene	103	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H4J060125
MB Lot-Sample #: H4J060000-564

Work Order #...: GR1F21AA

Matrix.....: AIR

Prep Date.....: 10/05/04
Prep Batch #...: 4280564

Analysis Date..: 10/05/04
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Carbon disulfide	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloromethane	ND	0.50	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Ethylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Naphthalene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Styrene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Toluene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
o-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
m-Xylene & p-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
2-Butanone (MEK)	ND	0.50	ppb(v/v)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	100	(70 - 130)
Toluene-d8	104	(70 - 130)
4-Bromofluorobenzene	103	(70 - 130)

NOTE(S):
Calculations are performed before rounding to avoid round-off errors in calculated results.

BURNS & MCDONNELL

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H4J060000 - 564B **Work Order #** GR1F21AA **Matrix.....:** AIR

Date Sampled...: 9/30/04 **Date Received..:** 10/1/04
Prep Date.....: 10/5/04 **Analysis Date...** 10/5/04
Prep Batch #.....: 4280564
Dilution Factor.: 1 **Method.....:** TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	ND	0.88	ug/m3
Naphthalene	ND	1.1	ug/m3
Benzene	ND	0.65	ug/m3
Styrene	ND	0.86	ug/m3
Tetrachloroethene	ND	1.4	ug/m3
Toluene	ND	0.76	ug/m3
1,1,1-Trichloroethane	ND	1.1	ug/m3
Trichloroethene	ND	1.1	ug/m3
o-Xylene	ND	0.88	ug/m3
m-Xylene & p-Xylene	ND	0.88	ug/m3
2-Butanone (MEK)	ND	1.5	ug/m3
Carbon disulfide	ND	0.63	ug/m3
Chloromethane	ND	1.0	ug/m3
1,1-Dichloroethane	ND	0.82	ug/m3

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	100	70 - 130
Toluene-d8	104	70 - 130
4-Bromofluorobenzene	103	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H4J060125 **Work Order #...:** GR1F21AC **Matrix.....:** AIR
LCS Lot-Sample#: H4J060000-564
Prep Date.....: 10/05/04 **Analysis Date..:** 10/05/04
Prep Batch #...: 4280564
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**101**	**(70 - 130)**	**EPA-2 TO-15**
Chlorobenzene	**98**	**(70 - 130)**	**EPA-2 TO-15**
Benzene	**92**	**(70 - 130)**	**EPA-2 TO-15**
Trichloroethene	**92**	**(70 - 130)**	**EPA-2 TO-15**
Toluene	**95**	**(70 - 130)**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	98	(70 - 130)
Toluene-d8	99	(70 - 130)
4-Bromofluorobenzene	95	(70 - 130)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H4J060125 Work Order #...: GR1F21AC Matrix.....: AIR
LCS Lot-Sample#: H4J060000-564
Prep Date.....: 10/05/04 Analysis Date..: 10/05/04
Prep Batch #...: 4280564
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
1,1-Dichloroethene	**10.0**	**10.1**	**ppb(v/v)**	**101**	**EPA-2 TO-15**
Chlorobenzene	**10.0**	**9.81**	**ppb(v/v)**	**98**	**EPA-2 TO-15**
Benzene	**10.0**	**9.17**	**ppb(v/v)**	**92**	**EPA-2 TO-15**
Trichloroethene	**10.0**	**9.20**	**ppb(v/v)**	**92**	**EPA-2 TO-15**
Toluene	**10.0**	**9.48**	**ppb(v/v)**	**95**	**EPA-2 TO-15**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	98	(70 - 130)
Toluene-d8	99	(70 - 130)
4-Bromofluorobenzene	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

BURNS & MCDONNELL

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H4J060000 - 564C **Work Order #** GR1F21AC **Matrix.....:** AIR

Date Sampled...: 9/30/04
Prep Date.....: 10/5/04
Prep Batch #.....: 4280564
Dilution Factor.: 1

Date Received..: 10/1/04
Analysis Date... 10/5/04

Method.....: TO-15

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS
1,1-Dichloroethene	40	41	ug/m3	101	70 - 130
Chlorobenzene	47	46	ug/m3	98	70 - 130
Benzene	32	30	ug/m3	92	70 - 130
Toluene	38	36	ug/m3	95	70 - 130
Trichloroethene	54	50	ug/m3	92	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	98	70 - 130
Toluene-d8	99	70 - 130
4-Bromofluorobenzene	95	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H4J060125 Work Order #...: GTA3F1AA Matrix.....: AIR
MB Lot-Sample #: H4J110000-355

Prep Date.....: 10/06/04
Analysis Date..: 10/06/04 Prep Batch #...: 4285355
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Carbon disulfide	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloromethane	ND	0.50	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Ethylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Naphthalene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Styrene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Toluene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
o-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
m-Xylene & p-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
2-Butanone (MEK)	ND	0.50	ppb(v/v)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(70 - 130)
Toluene-d8	106	(70 - 130)
4-Bromofluorobenzene	103	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

BURNS & MCDONNELL

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H4J060000 - 564C Work Order # GR1F21AC Matrix.....: AIR

Date Sampled...: 9/30/04
Prep Date.....: 10/5/04
Prep Batch #.....: 4280564
Dilution Factor.: 1

Date Received..: 10/1/04
Analysis Date... 10/5/04

Method.....: TO-15

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS
1,1-Dichloroethene	40	41	ug/m3	101	70 - 130
Chlorobenzene	47	46	ug/m3	98	70 - 130
Benzene	32	30	ug/m3	92	70 - 130
Toluene	38	36	ug/m3	95	70 - 130
Trichloroethene	54	50	ug/m3	92	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	98	70 - 130
Toluene-d8	99	70 - 130
4-Bromofluorobenzene	95	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H4J060125 Work Order #...: GTA3F1AA Matrix.....: AIR
MB Lot-Sample #: H4J110000-355

Prep Date.....: 10/06/04
Analysis Date..: 10/06/04 Prep Batch #...: 4285355
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Carbon disulfide	ND	0.20	ppb(v/v)	EPA-2 TO-15
Chloromethane	ND	0.50	ppb(v/v)	EPA-2 TO-15
1,1-Dichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Ethylbenzene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Naphthalene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Styrene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Tetrachloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
Toluene	ND	0.20	ppb(v/v)	EPA-2 TO-15
1,1,1-Trichloroethane	ND	0.20	ppb(v/v)	EPA-2 TO-15
Trichloroethene	ND	0.20	ppb(v/v)	EPA-2 TO-15
o-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
m-Xylene & p-Xylene	ND	0.20	ppb(v/v)	EPA-2 TO-15
2-Butanone (MEK)	ND	0.50	ppb(v/v)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(70 - 130)
Toluene-d8	106	(70 - 130)
4-Bromofluorobenzene	103	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

BURNS & MCDONNELL

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H4J110000 - 355B Work Order # GTA3F1AA Matrix.....: AIR

Date Sampled...: 9/30/04
Prep Date.....: 10/6/04
Prep Batch #.....: 4285355
Dilution Factor.: 1

Date Received..: 10/1/04
Analysis Date... 10/6/04

Method.....: TO-15

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Ethylbenzene	ND	0.88	ug/m3
Naphthalene	ND	1.1	ug/m3
Benzene	ND	0.65	ug/m3
Styrene	ND	0.86	ug/m3
Tetrachloroethene	ND	1.4	ug/m3
Toluene	ND	0.76	ug/m3
1,1,1-Trichloroethane	ND	1.1	ug/m3
Trichloroethene	ND	1.1	ug/m3
o-Xylene	ND	0.88	ug/m3
m-Xylene & p-Xylene	ND	0.88	ug/m3
2-Butanone (MEK)	ND	1.5	ug/m3
Carbon disulfide	ND	0.63	ug/m3
Chloromethane	ND	1.0	ug/m3
1,1-Dichloroethane	ND	0.82	ug/m3

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	101	70 - 130
Toluene-d8	106	70 - 130
4-Bromofluorobenzene	103	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H4J060125 Work Order #...: GTA3F1AC Matrix.....: AIR
LCS Lot-Sample#: H4J110000-355
Prep Date.....: 10/06/04 Analysis Date..: 10/06/04
Prep Batch #...: 4285355
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	102	(70 - 130)	EPA-2 TO-15
Chlorobenzene	102	(70 - 130)	EPA-2 TO-15
Benzene	95	(70 - 130)	EPA-2 TO-15
Trichloroethene	96	(70 - 130)	EPA-2 TO-15
Toluene	96	(70 - 130)	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	102	(70 - 130)
Toluene-d8	100	(70 - 130)
4-Bromofluorobenzene	94	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H4J060125 Work Order #...: GTA3F1AC Matrix.....: AIR
LCS Lot-Sample#: H4J110000-355
Prep Date.....: 10/06/04 Analysis Date..: 10/06/04
Prep Batch #...: 4285355
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
1,1-Dichloroethene	10.0	10.2	ppb(v/v)	102	EPA-2 TO-15
Chlorobenzene	10.0	10.2	ppb(v/v)	102	EPA-2 TO-15
Benzene	10.0	9.53	ppb(v/v)	95	EPA-2 TO-15
Trichloroethene	10.0	9.64	ppb(v/v)	96	EPA-2 TO-15
Toluene	10.0	9.63	ppb(v/v)	96	EPA-2 TO-15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	102	(70 - 130)
Toluene-d8	100	(70 - 130)
4-Bromofluorobenzene	94	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

BURNS & MCDONNELL

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H4J110000 - 355C

Work Order # GTA3F1AC

Matrix.....: AIR

Date Sampled...: 9/30/04
Prep Date.....: 10/6/04
Prep Batch #.....: 4285355
Dilution Factor.: 1

Date Received..: 10/1/04
Analysis Date... 10/6/04

Method.....: TO-15

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS
1,1-Dichloroethene	40	41	ug/m3	102	70 - 130
Chlorobenzene	47	47	ug/m3	102	70 - 130
Benzene	32	31	ug/m3	95	70 - 130
Toluene	38	37	ug/m3	96	70 - 130
Trichloroethene	54	53	ug/m3	96	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
1,2-Dichloroethane-d4	102	70 - 130
Toluene-d8	100	70 - 130
4-Bromofluorobenzene	94	70 - 130

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding) * (Molecular Weight/24.12)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.12)

~~H4J010362~~ H4J060125
SKD 10-6-04

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

s & McDonnell Engineering
W. 22nd St
Brook, Illinois 60523
e: (630) 990-0300 Fax: (630) 990-0301
ation: JOAN GONZALEZ

Laboratory: SEVERN TRENT LABORATORIES - KNOXVILLE
Address: 5815 MIDDLEBROOK PIKE
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Telephone: 865-291-3000

Document Control No: HAS-034-2004
Lab. Reference No. or Episode No.:

ect Number: 29168
Name: PEOPLES GAS - HAWTHORNE

Sample Number: up or J Name	Sample Point	Sample Designator	Sample Event: Round	Sample Event: Year	Sample ~~Depth~~ START ~~(in feet)~~ DUS: ~~From~~ DATE	~~To~~ DUS TIME	Sample Collected: Date	Sample Collected: Time	Sample Type Matrix: Liquid	Solid	Gas	Number of Containers	Parameter/Method Code: TO-15/VOCs* + NAPHTHALENE						FINAL VACUUM	Remarks
S-VOC-A-093004			—	—	9/30/04	1320	9/30/04	1321			X	1	X						0	CANISTER #12444
S-VOC-B-093004			—	—	9/30/04	1310	9/30/04	1311			X	1	X						0	93287

Rec'd temp. Ambient
Custody Seals intact
1 Container. Fedex#
848343087797
MF# 10-1-04
2 CANS / 0 FLOWS

9/30/04

PLEASE FIND:
1 BOX

npler (signature):	Sampler (signature):	Custody Seal Number: 093004STL-001, 093004STL-002	Special Instructions: *USE LIST OF PARAMETERS IN WORK ORDER 29168-001. STANDARD TAT.
linquished By (signature):	Date/Time: 9/30/04 1500	Received By (signature): Matthew F. Howard	Date/Time: 10-1-04 09:30
linquished By (signature):	Date/Time:	Received By (signature):	Date/Time:

Ice Present in Container: Yes ☐ No ☒
Temperature Upon Receipt:
Laboratory Comments:

STL KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST H4J060125

Client: Burns + McDonnell **Project:** _____ **Lot Number:** ~~H4J010362~~ SXD 10-6-04

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	
2. Is the cooler temperature within limits? (North Carolina, 1668, 1613B: 0-4°C; VOST: 10°C) (Cooler temp should be used only if no temp blank.)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓		
10. Were samples received with ≥½ HT remaining?	✓			☐ 10a Holding time expired ☐ 10b <½ HT left	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For SOG water samples (1613B, 1668A, 8290, LR PAHs), do samples have visible solids present?			✓	If yes, was SOG notified? _____	
13. Are the coolers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished by client	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?	✓			☐ 15a Incomplete information	

Quote #: ~~59373~~ 60833 PM Instructions: _____

Log using quote 60833

Sample Receiving Associate: Matthew F. Howard Date: _____

QA026R14.doc, 7/12/04

LABORATORY ACCREDITATION

FLORIDA DEPARTMENT OF HEALTH

State of Florida
Department of Health, Bureau of Laboratories

This is to certify that

E87605

Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

has complied with Florida Administrative Code 64E-1, for the examination of Environmental samples in the following categories:

DRINKING WATER - Dioxin, Primary Inorganic Contaminants, Secondary Inorganic Contaminants; NON-POTABLE WATER - Extractable Organics, General Chemistry, Metals, Volatile Organics, Pesticides-Herbicides-PCB's; SOLID AND CHEMICAL MATERIALS - Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides-PCB's, Volatile Organics; AIR AND EMISSIONS - Extractable Organics, Pesticides and PCB's, Volatile Organics; BIOLOGICAL TISSUE - Extractable Organics, Volatile Organics

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

EFFECTIVE JULY 1, 2003 **THROUGH JUNE 30, 2004**

Ming S. Chan, Ph.D.
Bureau Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/03
NON-TRANSFERABLE 9/22/2003-E87605

Jeb Bush
Governor

John O. Agwunobi, M.D., M.B.A.
Secretary

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 1613	Dioxin	NELAP	10/22/2001
Aluminum	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/22/2001
Antimony	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Arsenic	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Barium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Beryllium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Cadmium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Calcium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Copper	EPA 200.8	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	10/22/2001
Lead	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Manganese	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/22/2001
Selenium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Silver	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/22/2001
Thallium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Zinc	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/22/2001

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

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E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2,2-Tetrachloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2-Trichloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethylene	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 1613	Extractable Organics	NELAP	10/22/2001

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 (612) 607-1700

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2,3,4,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Dichloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichloropropane	EPA 624	Volatile Organics	NELAP	10/22/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1-Chlorohexane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4',5,5'-Octachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4',5-Heptachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4'-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5,5'-Heptachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5',6-Heptachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5'-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4',5,5',6-Heptachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,5,5'-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,5'-Pentachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,5,5',6-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,5'-Tetrachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,5,5'-Pentachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,5'-Tetrachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',5,5'-Tetrachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',5-Trichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,3,3',4',6-Pentachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3',4,4',5-Pentachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3',4,4'-Tetrachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3,4,6,7,8-Hxcdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
2,3,4,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,4,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4,6-Tetrachlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,4,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3',5-Trichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3,7,8-TCDF	EPA 1613	Extractable Organics	NELAP	10/22/2001
2,3,7,8-TCDF	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,7,8-TCDF	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 1613	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 613	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3-Dichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4',5-Trichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4,5-Trichlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trichlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,4,6-Trichlorophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dichlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,4-Dichlorophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dimethylphenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrotoluene (2,4-DNT)	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dichlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,6-Dichlorosyringaldehyde	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 625	Extractable Organics	NELAP	10/22/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chlorobiphenyl (BZ 1)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2-Chloroethyl vinyl ether	EPA 624	Volatile Organics	NELAP	10/22/2001

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloronaphthalene	EPA 625	Extractable Organics	NELAP	10/22/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorosyringaldehyde	EPA 1653	Extractable Organics	NELAP	10/22/2001
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Methyl-4,6-dinitrophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobenzidine	EPA 625	Extractable Organics	NELAP	10/22/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
3,4,5-Trichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4,5-Trichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4,6-Trichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4,6-Trichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4-Dichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4-Dichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,6-Dichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3-Methylphenol (m-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,5,6-Trichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4,5-Dichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4,5-Dichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4,6-Dichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4-Bromophenyl phenyl ether	EPA 625	Extractable Organics	NELAP	10/22/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
4-Chloro-3-methylphenol	EPA 625	Extractable Organics	NELAP	10/22/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4-Chloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4-Chlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4-Chlorophenyl phenylether	EPA 625	Extractable Organics	NELAP	10/22/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Methylphenol (p-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
5,6-Dichlorovanillin	EPA 1653	Extractable Organics	NELAP	10/22/2001
5-Chlorovanillin	EPA 1653	Extractable Organics	NELAP	10/22/2001
6-Chlorovanillin	EPA 1653	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 610	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 625	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 610	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA 625	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Acetone	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Adsorbable organic halogens (AOX)	EPA 1650	General Chemistry	NELAP	10/22/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Alkalinity as CaCO3	EPA 310.1	General Chemistry	NELAP	8/19/2002
Alkalinity as CaCO3	EPA 310.2	General Chemistry	NELAP	10/22/2001
Allyl alcohol	EPA 8260	Volatile Organics	NELAP	7/1/2003
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Aluminum	EPA 200.7	Metals	NELAP	10/22/2001
Aluminum	EPA 200.8	Metals	NELAP	10/22/2001
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	7/1/2003
Amenable cyanide	EPA 9010/9014	General Chemistry	NELAP	7/1/2003
Ammonia as N	EPA 350.1	General Chemistry	NELAP	10/22/2001
Anthracene	EPA 610	Extractable Organics	NELAP	10/22/2001
Anthracene	EPA 625	Extractable Organics	NELAP	10/22/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Antimony	EPA 200.7	Metals	NELAP	10/22/2001
Antimony	EPA 200.8	Metals	NELAP	10/22/2001
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	7/1/2003
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Arsenic	EPA 200.7	Metals	NELAP	10/22/2001
Arsenic	EPA 200.8	Metals	NELAP	10/22/2001
Arsenic	EPA 6010	Metals	NELAP	7/1/2003
Arsenic	EPA 6020	Metals	NELAP	10/22/2001
Barium	EPA 200.7	Metals	NELAP	10/22/2001
Barium	EPA 200.8	Metals	NELAP	10/22/2001
Barium	EPA 6010	Metals	NELAP	7/1/2003
Barium	EPA 6020	Metals	NELAP	7/1/2003
Benzene	EPA 624	Volatile Organics	NELAP	10/22/2001
Benzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Benzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Benzidine	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(a)anthracene	EPA 625	Extractable Organics	NELAP	10/22/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(k)fluoranthene	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Beryllium	EPA 200.7	Metals	NELAP	10/22/2001
Beryllium	EPA 200.8	Metals	NELAP	10/22/2001
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	7/1/2003
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	10/22/2001
bis(2-Chloroethoxy)methane	EPA 625	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroethyl) ether	EPA 625	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroisopropyl) ether	EPA 625	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroisopropyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 625	Extractable Organics	NELAP	10/22/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Boron	EPA 200.7	Metals	NELAP	10/22/2001
Boron	EPA 6010	Metals	NELAP	7/1/2003

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Bromide	EPA 300.0	General Chemistry	NELAP	10/22/2001
Bromobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromodichloromethane	EPA 624	Volatile Organics	NELAP	10/22/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromoform	EPA 624	Volatile Organics	NELAP	10/22/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Butyl benzyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Cadmium	EPA 200.7	Metals	NELAP	10/22/2001
Cadmium	EPA 200.8	Metals	NELAP	10/22/2001
Cadmium	EPA 6010	Metals	NELAP	7/1/2003
Cadmium	EPA 6020	Metals	NELAP	10/22/2001
Calcium	EPA 200.7	Metals	NELAP	10/22/2001
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbon tetrachloride	EPA 624	Volatile Organics	NELAP	10/22/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	10/22/2001
Chemical oxygen demand	EPA 410.2	General Chemistry	NELAP	10/22/2001
Chemical oxygen demand	EPA 410.4	General Chemistry	NELAP	10/22/2001
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Chloride	EPA 300.0	General Chemistry	NELAP	10/22/2001
Chlorobenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroform	EPA 624	Volatile Organics	NELAP	10/22/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chromium	EPA 200.7	Metals	NELAP	10/22/2001
Chromium	EPA 200.8	Metals	NELAP	10/22/2001
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	10/22/2001
Chromium VI	EPA 7196	Metals	NELAP	7/1/2003
Chrysene	EPA 610	Extractable Organics	NELAP	10/22/2001

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chrysene	EPA 625	Extractable Organics	NELAP	10/22/2001
Chrysene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Chrysene	EPA 8310	Extractable Organics	NELAP	7/1/2003
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	10/22/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Cobalt	EPA 200.7	Metals	NELAP	10/22/2001
Cobalt	EPA 200.8	Metals	NELAP	10/22/2001
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	7/1/2003
Copper	EPA 200.7	Metals	NELAP	10/22/2001
Copper	EPA 200.8	Metals	NELAP	10/22/2001
Copper	EPA 6010	Metals	NELAP	7/1/2003
Copper	EPA 6020	Metals	NELAP	10/22/2001
Cyanide	EPA 335.2	General Chemistry	NELAP	10/22/2001
Cyanide	SM 4500CN-E	General Chemistry	NELAP	10/22/2001
Decachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dibenz(a,h) anthracene	EPA 610	Extractable Organics	NELAP	10/22/2001
Dibenz(a,h) anthracene	EPA 625	Extractable Organics	NELAP	10/22/2001
Dibenz(a,h) anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenz(a,h) anthracene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibromochloromethane	EPA 624	Volatile Organics	NELAP	10/22/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diesel range organics (DRO)	CA-LUFT	Extractable Organics	NELAP	7/1/2003
Diesel range organics (DRO)	WI-DRO	Extractable Organics	NELAP	7/1/2003
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
Diethyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dimethyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Di-n-butyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-octyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Ethylbenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
Ethylbenzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Fluoranthene	EPA 610	Extractable Organics	NELAP	10/22/2001
Fluoranthene	EPA 625	Extractable Organics	NELAP	10/22/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluoranthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 610	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA 625	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Fluoride	EPA 300.0	General Chemistry	NELAP	8/19/2002
Fluoride	EPA 340.2	General Chemistry	NELAP	8/19/2002
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Gasoline range organics (GRO)	CA-LUFT	Extractable Organics	NELAP	7/1/2003
Gasoline range organics (GRO)	WI-GRO	Extractable Organics	NELAP	7/1/2003
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Hexachlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 625	Extractable Organics	NELAP	10/22/2001
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorocyclopentadiene	EPA 625	Extractable Organics	NELAP	10/22/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Hexachloroethane	EPA 625	Extractable Organics	NELAP	10/22/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 610	Extractable Organics	NELAP	10/22/2001
Indeno(1,2,3-cd)pyrene	EPA 625	Extractable Organics	NELAP	10/22/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Iron	EPA 200.7	Metals	NELAP	10/22/2001
Iron	EPA 6010	Metals	NELAP	7/1/2003
Isophorone	EPA 625	Extractable Organics	NELAP	10/22/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Kjeldahl nitrogen - total	EPA 351.2	General Chemistry	NELAP	10/22/2001
Lead	EPA 200.7	Metals	NELAP	10/22/2001
Lead	EPA 200.8	Metals	NELAP	10/22/2001
Lead	EPA 6010	Metals	NELAP	7/1/2003
Lead	EPA 6020	Metals	NELAP	10/22/2001
Magnesium	EPA 200.7	Metals	NELAP	10/22/2001
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 200.7	Metals	NELAP	10/22/2001
Manganese	EPA 200.8	Metals	NELAP	10/22/2001
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	7/1/2003
Mercury	EPA 200.8	Metals	NELAP	8/19/2002
Mercury	EPA 245.1	Metals	NELAP	10/22/2001
Mercury	EPA 7470	Metals	NELAP	10/22/2001
Mercury	EPA 7471	Metals	NELAP	10/22/2001
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Methyl bromide (Bromomethane)	EPA 624	Volatile Organics	NELAP	10/22/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl chloride (Chloromethane)	EPA 624	Volatile Organics	NELAP	10/22/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 8021	Volatile Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methylene chloride	EPA 624	Volatile Organics	NELAP	10/22/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Molybdenum	EPA 200.7	Metals	NELAP	10/22/2001
Molybdenum	EPA 200.8	Metals	NELAP	10/22/2001
Molybdenum	EPA 6010	Metals	NELAP	7/1/2003
Molybdenum	EPA 6020	Metals	NELAP	10/22/2001
Naphthalene	EPA 610	Extractable Organics	NELAP	10/22/2001
Naphthalene	EPA 625	Extractable Organics	NELAP	10/22/2001
Naphthalene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Naphthalene	EPA 8310	Extractable Organics	NELAP	7/1/2003
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Nickel	EPA 200.7	Metals	NELAP	10/22/2001
Nickel	EPA 200.8	Metals	NELAP	10/22/2001
Nickel	EPA 6010	Metals	NELAP	7/1/2003
Nickel	EPA 6020	Metals	NELAP	10/22/2001
Nitrate as N	EPA 300.0	General Chemistry	NELAP	10/22/2001
Nitrate as N	EPA 353.2	General Chemistry	NELAP	10/22/2001
Nitrate-nitrite	EPA 300.0	General Chemistry	NELAP	10/22/2001
Nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	10/22/2001
Nitrite as N	EPA 300.0	General Chemistry	NELAP	10/22/2001
Nitrobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
Nitrobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodimethylamine	EPA 625	Extractable Organics	NELAP	10/22/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodi-n-propylamine	EPA 625	Extractable Organics	NELAP	10/22/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiphenylamine	EPA 625	Extractable Organics	NELAP	10/22/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Oil & Grease	EPA 1664	General Chemistry	NELAP	10/22/2001
Orthophosphate as P	EPA 300.0	General Chemistry	NELAP	10/22/2001
Orthophosphate as P	EPA 365.2	General Chemistry	NELAP	10/22/2001
Pentachlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
Pentachlorophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
pH	EPA 150.1	General Chemistry	NELAP	10/22/2001
Phenanthrene	EPA 610	Extractable Organics	NELAP	10/22/2001
Phenanthrene	EPA 625	Extractable Organics	NELAP	10/22/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenanthrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Phenol	EPA 625	Extractable Organics	NELAP	10/22/2001
Phenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phosphorus, total	EPA 365.2	General Chemistry	NELAP	10/22/2001
Potassium	EPA 200.7	Metals	NELAP	10/22/2001
Potassium	EPA 6010	Metals	NELAP	7/1/2003
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pyrene	EPA 610	Extractable Organics	NELAP	10/22/2001
Pyrene	EPA 625	Extractable Organics	NELAP	10/22/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pyrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Residue-filterable (TDS)	EPA 160.1	General Chemistry	NELAP	10/22/2001
Residue-nonfilterable (TSS)	EPA 160.2	General Chemistry	NELAP	10/22/2001
Residue-total	EPA 160.3	General Chemistry	NELAP	10/22/2001
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Selenium	EPA 200.7	Metals	NELAP	10/22/2001
Selenium	EPA 200.8	Metals	NELAP	10/22/2001
Selenium	EPA 6010	Metals	NELAP	7/1/2003
Selenium	EPA 6020	Metals	NELAP	10/22/2001
Silver	EPA 200.7	Metals	NELAP	10/22/2001
Silver	EPA 200.8	Metals	NELAP	10/22/2001
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	7/1/2003
Sodium	EPA 200.7	Metals	NELAP	10/22/2001
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Styrene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Sulfate	EPA 300.0	General Chemistry	NELAP	10/22/2001
Sulfide	EPA 376.1	General Chemistry	NELAP	8/19/2002
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Tetrachlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
Tetrachloroethylene (Perchloroethylene)	EPA 624	Volatile Organics	NELAP	10/22/2001
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Tetrachloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
Thallium	EPA 200.7	Metals	NELAP	10/22/2001
Thallium	EPA 200.8	Metals	NELAP	10/22/2001
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	7/1/2003
Tin	EPA 200.7	Metals	NELAP	10/22/2001
Tin	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 200.7	Metals	NELAP	10/22/2001
Toluene	EPA 624	Volatile Organics	NELAP	10/22/2001
Toluene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Toluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Total cyanide	EPA 9010/9014	General Chemistry	NELAP	7/1/2003
Total hardness as CaCO3	EPA 200.7	Metals	NELAP	10/22/2001
Total organic carbon	EPA 9060	General Chemistry	NELAP	7/1/2003
Total organic carbon	SM 5310C	General Chemistry	NELAP	8/19/2002
Total Petroleum Hydrocarbons (TPH)	EPA 1664	General Chemistry	NELAP	10/22/2001
Total phenolics	EPA 420.1	General Chemistry	NELAP	10/22/2001
Total phenolics	EPA 420.4	General Chemistry	NELAP	10/22/2001
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
trans-1,2-Dichloroethylene	EPA 624	Volatile Organics	NELAP	10/22/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,3-Dichloropropylene	EPA 624	Volatile Organics	NELAP	10/22/2001
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichloroethene (Trichloroethylene)	EPA 624	Volatile Organics	NELAP	10/22/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorofluoromethane	EPA 624	Volatile Organics	NELAP	10/22/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorosyringol	EPA 1653	Extractable Organics	NELAP	10/22/2001
Turbidity	EPA 180.1	General Chemistry	NELAP	10/22/2001
Uranium	EPA 200.8	Metals	NELAP	10/22/2001
Vanadium	EPA 200.7	Metals	NELAP	10/22/2001
Vanadium	EPA 200.8	Metals	NELAP	10/22/2001
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Vinyl chloride	EPA 624	Volatile Organics	NELAP	10/22/2001

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 (612) 607-1700

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 8021	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Zinc	EPA 200.7	Metals	NELAP	10/22/2001
Zinc	EPA 200.8	Metals	NELAP	10/22/2001
Zinc	EPA 6010	Metals	NELAP	7/1/2003
Zinc	EPA 6020	Metals	NELAP	10/22/2001

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdd	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdd	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdd	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdd	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	10/22/2001

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
1,2,4-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	10/22/2001
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,3,5-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	10/22/2001
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
1-Chlorohexane	EPA 8260	Volatile Organics	NELAP	10/22/2001
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,3',4,4',5,5'-Octachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,3',4,4',5-Heptachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,3',4,4'-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,4',5,5'-Heptachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,4',5',6-Heptachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,4',5'-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4',5,5',6-Heptachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,5,5'-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,5'-Pentachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,5,5',6-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,5'-Tetrachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',4,5,5'-Pentachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',4,5'-Tetrachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',5,5'-Tetrachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',5-Trichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	10/22/2001
2,3,3',4',6-Pentachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,3',4,4',5-Pentachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,3',4,4'-Tetrachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,3,4,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
2,3,4,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
2,3',5-Trichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,3,7,8-TCDF	EPA 8280	Extractable Organics	NELAP	10/22/2001
2,3,7,8-TCDF	EPA 8290	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8280	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	10/22/2001
2,3-Dichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,4',5-Trichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	10/22/2001
2-Chlorobiphenyl (BZ 1)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	10/22/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/22/2001
2-Hexanone	EPA 8260	Volatile Organics	NELAP	10/22/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	10/22/2001

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Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87605 **EPA Lab Code:** MN00064 (612) 607-1700

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
3,3'-Dichlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
3-Methylphenol (m-Cresol)	EPA 8270	Extractable Organics	NELAP	10/22/2001
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	10/22/2001
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/22/2001
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	10/22/2001
4-Methylphenol (p-Cresol)	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Acetone	EPA 8260	Volatile Organics	NELAP	10/22/2001
Acetonitrile	EPA 8260	Volatile Organics	NELAP	10/22/2001
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	10/22/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Allyl alcohol	EPA 8260	Volatile Organics	NELAP	10/22/2001
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	10/22/2001
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aluminum	EPA 6010	Metals	NELAP	10/22/2001
Amenable cyanide	EPA 9010/9014	General Chemistry	NELAP	10/22/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Anthracene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Antimony	EPA 6010	Metals	NELAP	10/22/2001
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

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Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Arsenic	EPA 6010	Metals	NELAP	10/22/2001
Barium	EPA 6010	Metals	NELAP	10/22/2001
Benzene	EPA 8021	Volatile Organics	NELAP	10/22/2001
Benzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(a)anthracene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(k)fluoranthene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzoic acid	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	10/22/2001
Beryllium	EPA 6010	Metals	NELAP	10/22/2001
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroisopropyl) ether	EPA 8270	Extractable Organics	NELAP	10/22/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	10/22/2001
Boron	EPA 6010	Metals	NELAP	10/22/2001
Bromobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	10/22/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Cadmium	EPA 6010	Metals	NELAP	10/22/2001
Calcium	EPA 6010	Metals	NELAP	10/22/2001
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	10/22/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	10/22/2001

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	10/22/2001
Chloroprene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Chromium	EPA 6010	Metals	NELAP	10/22/2001
Chromium VI	EPA 7196	General Chemistry	NELAP	10/22/2001
Chrysene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Chrysene	EPA 8310	Extractable Organics	NELAP	10/22/2001
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	10/22/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	10/22/2001
cis-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	8/19/2002
Cobalt	EPA 6010	Metals	NELAP	10/22/2001
Copper	EPA 6010	Metals	NELAP	10/22/2001
Decachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Dibenz(a,h) anthracene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Dibenz(a,h) anthracene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	10/22/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Dibromomethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Diesel range organics (DRO)	CA-LUFT	Extractable Organics	NELAP	10/22/2001
Diesel range organics (DRO)	WI-DRO	Extractable Organics	NELAP	10/22/2001
Diethyl ether	EPA 8260	Volatile Organics	NELAP	10/22/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	10/22/2001
Ethylbenzene	EPA 8021	Volatile Organics	NELAP	10/22/2001
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Fluoranthene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA 8310	Extractable Organics	NELAP	10/22/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Gasoline range organics (GRO)	CA-LUFT	Extractable Organics	NELAP	10/22/2001
Gasoline range organics (GRO)	WI-GRO	Extractable Organics	NELAP	10/22/2001
Gasoline range organics (GRO)	WI-GRO	Extractable Organics	NELAP	10/22/2001
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	10/22/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Indeno(1,2,3-cd)pyrene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Iron	EPA 6010	Metals	NELAP	10/22/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	10/22/2001
Lead	EPA 6010	Metals	NELAP	10/22/2001
Magnesium	EPA 6010	Metals	NELAP	10/22/2001
Manganese	EPA 6010	Metals	NELAP	10/22/2001
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	10/22/2001
Methyl tert-butyl ether (MTBE)	EPA 8021	Volatile Organics	NELAP	10/22/2001
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	10/22/2001
Molybdenum	EPA 6010	Metals	NELAP	10/22/2001
Naphthalene	EPA 8021	Volatile Organics	NELAP	10/22/2001
Naphthalene	EPA 8260	Volatile Organics	NELAP	10/22/2001

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Naphthalene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Naphthalene	EPA 8310	Extractable Organics	NELAP	10/22/2001
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Nickel	EPA 6010	Metals	NELAP	10/22/2001
Nitrobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	10/22/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	10/22/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	10/22/2001
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Phenanthrene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Phenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
Potassium	EPA 6010	Metals	NELAP	10/22/2001
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Pyrene	EPA 8310	Extractable Organics	NELAP	10/22/2001
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Selenium	EPA 6010	Metals	NELAP	10/22/2001
Silver	EPA 6010	Metals	NELAP	10/22/2001
Sodium	EPA 6010	Metals	NELAP	10/22/2001
Styrene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Synthetic Precipitation Leaching Procedure	EPA 1312	General Chemistry	NELAP	10/22/2001
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Thallium	EPA 6010	Metals	NELAP	10/22/2001
Tin	EPA 6010	Metals	NELAP	10/22/2001
Toluene	EPA 8021	Volatile Organics	NELAP	10/22/2001
Toluene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Total cyanide	EPA 9010/9014	General Chemistry	NELAP	10/22/2001
Total organic carbon	EPA 9060	General Chemistry	NELAP	10/22/2001
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Toxicity Characteristic Leaching Procedure	EPA 1311	General Chemistry	NELAP	10/22/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	10/22/2001
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	10/22/2001

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Vanadium	EPA 6010	Metals	NELAP	10/22/2001
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	10/22/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	10/22/2001
Xylene (total)	EPA 8021	Volatile Organics	NELAP	10/22/2001
Xylene (total)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Zinc	EPA 6010	Metals	NELAP	10/22/2001

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Minneapolis, MN 55414

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,4,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,4,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,7,8-TCDF	EPA 8280	Extractable Organics	NELAP	7/1/2003

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,7,8-TCDF	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1-Trichloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1,1-Trichloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,1,2,2-Tetrachloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1,2,2-Tetrachloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1,2-Trichloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1,2-Trichloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,1-Dichloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,1-Dichloroethylene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethylene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdd	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdd	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdd	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdd	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3-Trichloropropane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2,4-Trimethylbenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2-Dichloro-1,1,2,2-tetrafluoroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2-Dichloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dichloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2-Dichloropropane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,3,5-Trimethylbenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,3-Butadiene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,3-Dichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,3-Dichloropropane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
2,3,4,6,7,8-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
2,3,7,8-TCDF	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
2-Butanone (Methyl ethyl ketone, MEK)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
4,4'-DDE	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
4,4'-DDT	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
4-Ethyltoluene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Acenaphthene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Aldrin	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Anthracene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Aroclor-1016 (PCB-1016)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1221 (PCB-1221)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1232 (PCB-1232)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1242 (PCB-1242)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1248 (PCB-1248)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1254 (PCB-1254)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1260 (PCB-1260)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Benzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Benzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Benzene	EPA TO-3	Volatile Organics	NELAP	10/22/2001
Benzo(a)anthracene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzo(e)pyrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzo(k)fluoranthene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzyl chloride	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Benzyl chloride	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Bromoform	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Carbon disulfide	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Carbon tetrachloride	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Chlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Chlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Chloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Chloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Chloroform	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Chloroform	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Chrysene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
cis & trans-1,2-Dichloroethene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
cis-1,2-Dichloroethylene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
cis-1,3-Dichloropropene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
cis-1,3-Dichloropropene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Dibenz(a,h) anthracene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Dichlorodifluoromethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Dieldrin	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Ethane	RSK-175	Volatile Organics	NELAP	8/19/2002
Ethylbenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Ethylbenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Ethylbenzene	EPA TO-3	Volatile Organics	NELAP	10/22/2001
Ethylene	RSK-175	Volatile Organics	NELAP	8/19/2002
Fluoranthene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Heptachlor	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Heptachlor epoxide	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Hexachlorobutadiene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Hexachlorobutadiene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Indeno(1,2,3-cd)pyrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Methane	RSK-175	Volatile Organics	NELAP	8/19/2002
Methoxychlor	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Methyl chloride (Chloromethane)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Methyl tert-butyl ether (MTBE)	EPA TO-15	Volatile Organics	NELAP	8/19/2002

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E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methylene chloride	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Methylene chloride	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Naphthalene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
n-Hexane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
p-Dioxane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Phenanthrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Pyrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Styrene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Styrene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Tetrachloroethylene (Perchloroethylene)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Tetrachloroethylene (Perchloroethylene)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Toluene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Toluene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Toluene	EPA TO-3	Volatile Organics	NELAP	10/22/2001
trans-1,2-Dichloroethylene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
trans-1,3-Dichloropropylene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
trans-1,3-Dichloropropylene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Trichloroethene (Trichloroethylene)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Trichloroethene (Trichloroethylene)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Trichlorofluoromethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Vinyl acetate	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Vinyl acetate	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Vinyl chloride	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Vinyl chloride	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Xylene (total)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Xylene (total)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Xylene (total)	EPA TO-3	Volatile Organics	NELAP	10/22/2001

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

FLORIDA DEPARTMENT OF HEALTH

State of Florida
Department of Health, Bureau of Laboratories

This is to certify that

E87605

Pace Analytical Services, Inc. - MN

1700 Elm Street, Suite 200

Minneapolis, MN 55414

has complied with Florida Administrative Code 64E-1, for the examination of Environmental samples in the following categories:

Drinking Water

Dioxin, Group II Unregulated Contaminants, Other Regulated Contaminants, Primary Inorganic Contaminants, Secondary Inorganic Contaminants, Synthetic Organic Contaminants

Non-Potable Water

Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides-PCB's, Volatile Organics

Solid and Chemical Materials

Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides-PCB's, Volatile Organics

Biological Tissues

Extractable Organics, Volatile Organics

Air and Emissions

Extractable Organics, Pesticides and PCB's, Volatile Organics

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

EFFECTIVE JULY 1, 2004 **THROUGH JUNE 30, 2005**

Ming S. Chan, Ph.D.
Bureau Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/03
NON-TRANSFERABLE 04/16/2004-E87605

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87605 **EPA Lab Code:** MN00064 (612) 607-1700

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Beryllium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Bromide	EPA 300.0	Primary Inorganic Contaminants	NELAP	10/17/2003
Bromobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Bromochloromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Bromodichloromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Bromoform	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Cadmium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Carbon disulfide	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
Carbon tetrachloride	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
Chloride	EPA 325.2	Secondary Inorganic Contaminants	NELAP	10/17/2003
Chloride	SM 4500-Cl E	Secondary Inorganic Contaminants	NELAP	10/17/2003
Chlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
Chloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Chloroform	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Chromium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2003
cis-1,2-Dichloroethylene	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
cis-1,3-Dichloropropene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Copper	EPA 200.8	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	10/22/2001
Dibromochloromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Dibromomethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Dichlorodifluoromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Dichloromethane (DCM, Methylene chloride)	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
Ethyl methacrylate	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
Ethylbenzene	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
Fluoride	EPA 300.0	Primary Inorganic Contaminants	NELAP	10/17/2003
Fluoride	EPA 340.2	Secondary Inorganic Contaminants	NELAP	10/17/2003
Fluoride	SM 4500 F-C	Primary Inorganic Contaminants	NELAP	10/17/2003
Hardness (calc.)	EPA 200.7	Secondary Inorganic Contaminants	NELAP	10/17/2003
Hexachlorobutadiene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Isopropylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Lead	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Manganese	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/22/2001
Mercury	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2003
Methyl acrylate	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
Methyl bromide (Bromomethane)	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003

Jeb Bush
Governor

FLORIDA DEPARTMENT OF HEALTH

John O. Agwunobi, M.D.,M.B.A.
Secretary

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87605 **EPA Lab Code:** MN00064 (612) 607-1700

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,1,1-Trichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
1,1,2,2-Tetrachloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,1,2-Trichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
1,1-Dichloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,1-Dichloropropene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,2,3-Trichlorobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,2,3-Trichloropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,2,4-Trichlorobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,2,4-Trimethylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 524.2	Synthetic Organic Contaminants	NELAP	11/12/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 524.2	Synthetic Organic Contaminants	NELAP	11/12/2003
1,2-Dichlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
1,2-Dichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
1,2-Dichloropropane	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
1,3,5-Trimethylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,3-Dichlorobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,3-Dichloropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
1,4-Dichlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
2,2-Dichloropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 1613	Dioxin	NELAP	10/22/2001
2-Butanone (Methyl ethyl ketone, MEK)	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
2-Chlorotoluene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
2-Hexanone	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
2-Nitropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
4-Chlorotoluene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
4-Isopropyltoluene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
4-Methyl-2-pentanone (MIBK)	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
Acetone	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
Acrylonitrile	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
Alkalinity as CaCO3	SM 2320 B	Primary Inorganic Contaminants	NELAP	10/17/2003
Aluminum	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/22/2001
Antimony	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Arsenic	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Barium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Benzene	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

Laboratory Scope of Accreditation

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State Laboratory ID: E87605 EPA Lab Code: MN00064 (612) 607-1700

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methyl chloride (Chloromethane)	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Methyl methacrylate	EPA 524.2	Group II Unregulated Contaminants	NELAP	11/12/2003
Methyl tert-butyl ether (MTBE)	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Naphthalene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
n-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Nickel	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/17/2003
Nitrate as N	EPA 300.0	Primary Inorganic Contaminants	NELAP	10/17/2003
Nitrite as N	EPA 300.0	Primary Inorganic Contaminants	NELAP	10/17/2003
n-Propylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Orthophosphate as P	EPA 300.0	Primary Inorganic Contaminants	NELAP	10/17/2003
Orthophosphate as P	SM 4500-P E	Primary Inorganic Contaminants	NELAP	10/17/2003
pH	EPA 150.1	Primary Inorganic Contaminants	NELAP	10/17/2003
sec-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Selenium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Silver	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/22/2001
Styrene	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
Sulfate	EPA 300.0	Primary Inorganic Contaminants	NELAP	10/17/2003
Sulfate	EPA 375.4	Secondary Inorganic Contaminants	NELAP	10/17/2003
Sulfate	SM 4500 SO4-E	Secondary Inorganic Contaminants	NELAP	10/17/2003
tert-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Tetrachloroethylene (Perchloroethylene)	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
Thallium	EPA 200.8	Primary Inorganic Contaminants	NELAP	10/22/2001
Toluene	EPA 524.2	Other Regulated Contaminants	NELAP	11/12/2003
Total cyanide	SM 4500CN-E	Primary Inorganic Contaminants	NELAP	10/17/2003
Total nitrate-nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP	10/17/2003
Total organic carbon	SM 5310C	Primary Inorganic Contaminants	NELAP	10/17/2003
Total trihalomethanes	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
trans-1,2-Dichloroethylene	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
trans-1,3-Dichloropropylene	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Trichloroethene (Trichloroethylene)	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
Trichlorofluoromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	10/17/2003
Turbidity	EPA 180.1	Secondary Inorganic Contaminants	NELAP	10/17/2003
Vinyl chloride	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
Xylene (total)	EPA 524.2	Other Regulated Contaminants	NELAP	10/17/2003
Zinc	EPA 200.8	Secondary Inorganic Contaminants	NELAP	10/22/2001

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E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2,2-Tetrachloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2-Trichloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethylene	EPA 624	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 1613	Extractable Organics	NELAP	10/22/2001

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2,3,4,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Dichloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichloropropane	EPA 624	Volatile Organics	NELAP	10/22/2001

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1-Chlorohexane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ 206)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ 194)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4'-Hexachlorobiphenyl (BZ 128)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ 183)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ 187)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,5,5'-Hexachlorobiphenyl (BZ 141)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,5'-Pentachlorobiphenyl (BZ 87)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,5,5',6-Hexachlorobiphenyl (BZ 151)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,5'-Tetrachlorobiphenyl (BZ 44)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,5,5'-Pentachlorobiphenyl (BZ 101)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,5'-Tetrachlorobiphenyl (BZ 49)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',5,5'-Tetrachlorobiphenyl (BZ 52)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',5-Trichlorobiphenyl (BZ 18)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,3,3',4',6-Pentachlorobiphenyl (BZ 110)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3',4,4',5-Pentachlorobiphenyl (BZ 118)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3',4,4'-Tetrachlorobiphenyl (BZ 66)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3,4,6,7,8-Hxcdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
2,3,4,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,4,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4,6-Tetrachlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA 1613	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,4,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3',5-Trichlorobiphenyl (BZ 26)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3,7,8-TCDF	EPA 1613	Extractable Organics	NELAP	10/22/2001
2,3,7,8-TCDF	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,7,8-TCDF	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 1613	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 613	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3-Dichlorobiphenyl (BZ 5)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4',5-Trichlorobiphenyl (BZ 31)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4,5-Trichlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trichlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,4,6-Trichlorophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dichlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,4-Dichlorophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dimethylphenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrotoluene (2,4-DNT)	EPA 625	Extractable Organics	NELAP	10/22/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dichlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,6-Dichlorosyringaldehyde	EPA 1653	Extractable Organics	NELAP	10/22/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 625	Extractable Organics	NELAP	10/22/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chlorobiphenyl (BZ 1)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2-Chloroethyl vinyl ether	EPA 624	Volatile Organics	NELAP	10/22/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloronaphthalene	EPA 625	Extractable Organics	NELAP	10/22/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorosyringaldehyde	EPA 1653	Extractable Organics	NELAP	10/22/2001
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Methyl-4,6-dinitrophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobenzidine	EPA 625	Extractable Organics	NELAP	10/22/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobiphenyl (BZ 11)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
3,4,5-Trichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4,5-Trichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4,6-Trichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4,6-Trichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4-Dichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,4-Dichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3,6-Dichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
3-Methylphenol (m-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,5,6-Trichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4,5-Dichlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4,5-Dichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4,6-Dichloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4-Bromophenyl phenyl ether	EPA 625	Extractable Organics	NELAP	10/22/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Analyte	Method/Tech	Category	Certification Type	Effective Date
4-Chloro-3-methylphenol	EPA 625	Extractable Organics	NELAP	10/22/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4-Chloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4-Chlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
4-Chlorophenyl phenylether	EPA 625	Extractable Organics	NELAP	10/22/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Methylphenol (p-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
5,6-Dichlorovanillin	EPA 1653	Extractable Organics	NELAP	10/22/2001
5-Chlorovanillin	EPA 1653	Extractable Organics	NELAP	10/22/2001
6-Chlorovanillin	EPA 1653	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 610	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 625	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 610	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA 625	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Acetone	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Adsorbable organic halogens (AOX)	EPA 1650	General Chemistry	NELAP	10/22/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Alkalinity as CaCO3	EPA 310.1	General Chemistry	NELAP	8/19/2002
Alkalinity as CaCO3	EPA 310.2	General Chemistry	NELAP	10/22/2001
Allyl alcohol	EPA 8260	Volatile Organics	NELAP	7/1/2003
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Aluminum	EPA 200.7	Metals	NELAP	10/22/2001
Aluminum	EPA 200.8	Metals	NELAP	10/22/2001
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	7/1/2003
Amenable cyanide	EPA 9010/9014	General Chemistry	NELAP	7/1/2003
Ammonia as N	EPA 350.1	General Chemistry	NELAP	10/22/2001
Anthracene	EPA 610	Extractable Organics	NELAP	10/22/2001
Anthracene	EPA 625	Extractable Organics	NELAP	10/22/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Antimony	EPA 200.7	Metals	NELAP	10/22/2001
Antimony	EPA 200.8	Metals	NELAP	10/22/2001
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	7/1/2003
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Arsenic	EPA 200.7	Metals	NELAP	10/22/2001
Arsenic	EPA 200.8	Metals	NELAP	10/22/2001
Arsenic	EPA 6010	Metals	NELAP	7/1/2003
Arsenic	EPA 6020	Metals	NELAP	10/22/2001
Barium	EPA 200.7	Metals	NELAP	10/22/2001
Barium	EPA 200.8	Metals	NELAP	10/22/2001
Barium	EPA 6010	Metals	NELAP	7/1/2003
Barium	EPA 6020	Metals	NELAP	7/1/2003
Benzene	EPA 624	Volatile Organics	NELAP	10/22/2001
Benzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Benzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Benzidine	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(a)anthracene	EPA 625	Extractable Organics	NELAP	10/22/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 610	Extractable Organics	NELAP	10/22/2001
Benzo(k)fluoranthene	EPA 625	Extractable Organics	NELAP	10/22/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Beryllium	EPA 200.7	Metals	NELAP	10/22/2001
Beryllium	EPA 200.8	Metals	NELAP	10/22/2001
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	7/1/2003
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	10/22/2001
bis(2-Chloroethoxy)methane	EPA 625	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroethyl) ether	EPA 625	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroisopropyl) ether	EPA 625	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroisopropyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 625	Extractable Organics	NELAP	10/22/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Boron	EPA 200.7	Metals	NELAP	10/22/2001
Boron	EPA 6010	Metals	NELAP	7/1/2003

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Bromide	EPA 300.0	General Chemistry	NELAP	10/22/2001
Bromobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromodichloromethane	EPA 624	Volatile Organics	NELAP	10/22/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromoform	EPA 624	Volatile Organics	NELAP	10/22/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Butyl benzyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Cadmium	EPA 200.7	Metals	NELAP	10/22/2001
Cadmium	EPA 200.8	Metals	NELAP	10/22/2001
Cadmium	EPA 6010	Metals	NELAP	7/1/2003
Cadmium	EPA 6020	Metals	NELAP	10/22/2001
Calcium	EPA 200.7	Metals	NELAP	10/22/2001
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbon tetrachloride	EPA 624	Volatile Organics	NELAP	10/22/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	10/22/2001
Chemical oxygen demand	EPA 410.2	General Chemistry	NELAP	10/22/2001
Chemical oxygen demand	EPA 410.4	General Chemistry	NELAP	10/22/2001
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Chloride	EPA 300.0	General Chemistry	NELAP	10/22/2001
Chloride	EPA 325.2	General Chemistry	NELAP	10/17/2003
Chloride	SM 4500-Cl E	General Chemistry	NELAP	10/17/2003
Chlorobenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroethane	EPA 624	Volatile Organics	NELAP	10/22/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroform	EPA 624	Volatile Organics	NELAP	10/22/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroprene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chromium	EPA 200.7	Metals	NELAP	10/22/2001
Chromium	EPA 200.8	Metals	NELAP	10/22/2001
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	10/22/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Chromium VI	EPA 7196	Metals	NELAP	7/1/2003
Chrysene	EPA 610	Extractable Organics	NELAP	10/22/2001
Chrysene	EPA 625	Extractable Organics	NELAP	10/22/2001
Chrysene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Chrysene	EPA 8310	Extractable Organics	NELAP	7/1/2003
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	10/22/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Cobalt	EPA 200.7	Metals	NELAP	10/22/2001
Cobalt	EPA 200.8	Metals	NELAP	10/22/2001
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	7/1/2003
Copper	EPA 200.7	Metals	NELAP	10/22/2001
Copper	EPA 200.8	Metals	NELAP	10/22/2001
Copper	EPA 6010	Metals	NELAP	7/1/2003
Copper	EPA 6020	Metals	NELAP	10/22/2001
Cyanide	EPA 335.2	General Chemistry	NELAP	10/22/2001
Cyanide	SM 4500CN-E	General Chemistry	NELAP	10/22/2001
Decachlorobiphenyl (BZ 209)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dibenz(a,h) anthracene	EPA 610	Extractable Organics	NELAP	10/22/2001
Dibenz(a,h) anthracene	EPA 625	Extractable Organics	NELAP	10/22/2001
Dibenz(a,h) anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenz(a,h) anthracene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibromochloromethane	EPA 624	Volatile Organics	NELAP	10/22/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diesel range organics (DRO)	CA-LUFT	Extractable Organics	NELAP	7/1/2003
Diesel range organics (DRO)	WI-DRO	Extractable Organics	NELAP	7/1/2003
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
Diethyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Dimethyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-butyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-octyl phthalate	EPA 625	Extractable Organics	NELAP	10/22/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Ethylbenzene	EPA 624	Volatile Organics	NELAP	10/22/2001
Ethylbenzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Fluoranthene	EPA 610	Extractable Organics	NELAP	10/22/2001
Fluoranthene	EPA 625	Extractable Organics	NELAP	10/22/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluoranthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 610	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA 625	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Fluoride	EPA 300.0	General Chemistry	NELAP	8/19/2002
Fluoride	EPA 340.2	General Chemistry	NELAP	8/19/2002
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Gasoline range organics (GRO)	CA-LUFT	Extractable Organics	NELAP	7/1/2003
Gasoline range organics (GRO)	WI-GRO	Extractable Organics	NELAP	7/1/2003
Hardness	SM 2340 B	General Chemistry	NELAP	10/17/2003
Hardness (calc.)	EPA 200.7	General Chemistry	NELAP	11/12/2003
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Hexachlorobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 625	Extractable Organics	NELAP	10/22/2001

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorocyclopentadiene	EPA 625	Extractable Organics	NELAP	10/22/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachloroethane	EPA 625	Extractable Organics	NELAP	10/22/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 610	Extractable Organics	NELAP	10/22/2001
Indeno(1,2,3-cd)pyrene	EPA 625	Extractable Organics	NELAP	10/22/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Iron	EPA 200.7	Metals	NELAP	10/22/2001
Iron	EPA 6010	Metals	NELAP	7/1/2003
Isophorone	EPA 625	Extractable Organics	NELAP	10/22/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Kjeldahl nitrogen,- total	EPA 351.2	General Chemistry	NELAP	10/22/2001
Lead	EPA 200.7	Metals	NELAP	10/22/2001
Lead	EPA 200.8	Metals	NELAP	10/22/2001
Lead	EPA 6010	Metals	NELAP	7/1/2003
Lead	EPA 6020	Metals	NELAP	10/22/2001
Magnesium	EPA 200.7	Metals	NELAP	10/22/2001
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 200.7	Metals	NELAP	10/22/2001
Manganese	EPA 200.8	Metals	NELAP	10/22/2001
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	7/1/2003
Mercury	EPA 200.8	Metals	NELAP	8/19/2002
Mercury	EPA 245.1	Metals	NELAP	10/22/2001
Mercury	EPA 7470	Metals	NELAP	10/22/2001
Mercury	EPA 7471	Metals	NELAP	10/22/2001
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Methyl bromide (Bromomethane)	EPA 624	Volatile Organics	NELAP	10/22/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl chloride (Chloromethane)	EPA 624	Volatile Organics	NELAP	10/22/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003

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E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methyl tert-butyl ether (MTBE)	EPA 8021	Volatile Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methylene chloride	EPA 624	Volatile Organics	NELAP	10/22/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Molybdenum	EPA 200.7	Metals	NELAP	10/22/2001
Molybdenum	EPA 200.8	Metals	NELAP	10/22/2001
Molybdenum	EPA 6010	Metals	NELAP	7/1/2003
Molybdenum	EPA 6020	Metals	NELAP	10/22/2001
Naphthalene	EPA 610	Extractable Organics	NELAP	10/22/2001
Naphthalene	EPA 625	Extractable Organics	NELAP	10/22/2001
Naphthalene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Naphthalene	EPA 8310	Extractable Organics	NELAP	7/1/2003
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Nickel	EPA 200.7	Metals	NELAP	10/22/2001
Nickel	EPA 200.8	Metals	NELAP	10/22/2001
Nickel	EPA 6010	Metals	NELAP	7/1/2003
Nickel	EPA 6020	Metals	NELAP	10/22/2001
Nitrate as N	EPA 300.0	General Chemistry	NELAP	10/22/2001
Nitrate as N	EPA 353.1	General Chemistry	NELAP	10/17/2003
Nitrate as N	EPA 353.2	General Chemistry	NELAP	10/22/2001
Nitrate as N	SM 4500-NO3 H	General Chemistry	NELAP	10/17/2003
Nitrate-nitrite	EPA 300.0	General Chemistry	NELAP	10/22/2001
Nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	10/22/2001
Nitrite	SM 4500-NO2 B	General Chemistry	NELAP	10/17/2003
Nitrite as N	EPA 300.0	General Chemistry	NELAP	10/22/2001
Nitrite as N	EPA 354.1	General Chemistry	NELAP	10/17/2003
Nitrobenzene	EPA 625	Extractable Organics	NELAP	10/22/2001
Nitrobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodimethylamine	EPA 625	Extractable Organics	NELAP	10/22/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodi-n-propylamine	EPA 625	Extractable Organics	NELAP	10/22/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiphenylamine	EPA 625	Extractable Organics	NELAP	10/22/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Oil & Grease	EPA 1664	General Chemistry	NELAP	10/22/2001
Orthophosphate as P	EPA 300.0	General Chemistry	NELAP	10/22/2001
Orthophosphate as P	EPA 365.2	General Chemistry	NELAP	10/22/2001
Pentachlorophenol	EPA 1653	Extractable Organics	NELAP	10/22/2001
Pentachlorophenol	EPA 625	Extractable Organics	NELAP	10/22/2001
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
pH	EPA 150.1	General Chemistry	NELAP	10/22/2001
Phenanthrene	EPA 610	Extractable Organics	NELAP	10/22/2001
Phenanthrene	EPA 625	Extractable Organics	NELAP	10/22/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenanthrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Phenol	EPA 625	Extractable Organics	NELAP	10/22/2001
Phenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phosphorus, total	EPA 365.2	General Chemistry	NELAP	10/22/2001
Potassium	EPA 200.7	Metals	NELAP	10/22/2001
Potassium	EPA 6010	Metals	NELAP	7/1/2003
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pyrene	EPA 610	Extractable Organics	NELAP	10/22/2001
Pyrene	EPA 625	Extractable Organics	NELAP	10/22/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pyrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Residue-filterable (TDS)	EPA 160.1	General Chemistry	NELAP	10/22/2001
Residue-nonfilterable (TSS)	EPA 160.2	General Chemistry	NELAP	10/22/2001
Residue-total	EPA 160.3	General Chemistry	NELAP	10/22/2001
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Selenium	EPA 200.7	Metals	NELAP	10/22/2001
Selenium	EPA 200.8	Metals	NELAP	10/22/2001
Selenium	EPA 6010	Metals	NELAP	7/1/2003
Selenium	EPA 6020	Metals	NELAP	10/22/2001
Silver	EPA 200.7	Metals	NELAP	10/22/2001
Silver	EPA 200.8	Metals	NELAP	10/22/2001
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	7/1/2003
Sodium	EPA 200.7	Metals	NELAP	10/22/2001

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Styrene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Sulfate	EPA 300.0	General Chemistry	NELAP	10/22/2001
Sulfate	EPA 375.4	General Chemistry	NELAP	10/17/2003
Sulfide	EPA 376.1	General Chemistry	NELAP	8/19/2002
tert-Butyl alcohol	EPA 8260	Volatile Organics	NELAP	10/17/2003
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Tetrachlorocatechol	EPA 1653	Extractable Organics	NELAP	10/22/2001
Tetrachloroethylene (Perchloroethylene)	EPA 624	Volatile Organics	NELAP	10/22/2001
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Tetrachloroguaiacol	EPA 1653	Extractable Organics	NELAP	10/22/2001
Thallium	EPA 200.7	Metals	NELAP	10/22/2001
Thallium	EPA 200.8	Metals	NELAP	10/22/2001
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	7/1/2003
Tin	EPA 200.7	Metals	NELAP	10/22/2001
Tin	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 200.7	Metals	NELAP	10/22/2001
Toluene	EPA 624	Volatile Organics	NELAP	10/22/2001
Toluene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Toluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Total cyanide	EPA 9010/9014	General Chemistry	NELAP	7/1/2003
Total hardness as CaCO3	EPA 200.7	Metals	NELAP	10/22/2001
Total nitrate-nitrite	EPA 353.1	General Chemistry	NELAP	10/17/2003
Total nitrate-nitrite	SM 4500-NO3 H	General Chemistry	NELAP	10/17/2003
Total organic carbon	EPA 9060	General Chemistry	NELAP	7/1/2003
Total organic carbon	SM 5310C	General Chemistry	NELAP	8/19/2002
Total Petroleum Hydrocarbons (TPH)	EPA 1664	General Chemistry	NELAP	10/22/2001
Total phenolics	EPA 420.1	General Chemistry	NELAP	10/22/2001
Total phenolics	EPA 420.4	General Chemistry	NELAP	10/22/2001
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
trans-1,2-Dichloroethylene	EPA 624	Volatile Organics	NELAP	10/22/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,3-Dichloropropylene	EPA 624	Volatile Organics	NELAP	10/22/2001
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 (612) 607-1700

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Trichloroethene (Trichloroethylene)	EPA 624	Volatile Organics	NELAP	10/22/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorofluoromethane	EPA 624	Volatile Organics	NELAP	10/22/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorosyringol	EPA 1653	Extractable Organics	NELAP	10/22/2001
Turbidity	EPA 180.1	General Chemistry	NELAP	10/22/2001
Uranium	EPA 200.8	Metals	NELAP	10/22/2001
Vanadium	EPA 200.7	Metals	NELAP	10/22/2001
Vanadium	EPA 200.8	Metals	NELAP	10/22/2001
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Vinyl chloride	EPA 624	Volatile Organics	NELAP	10/22/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 8021	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Zinc	EPA 200.7	Metals	NELAP	10/22/2001
Zinc	EPA 200.8	Metals	NELAP	10/22/2001
Zinc	EPA 6010	Metals	NELAP	7/1/2003
Zinc	EPA 6020	Metals	NELAP	10/22/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdd	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdd	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdd	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdd	EPA 8290	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	10/22/2001

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
1,2,4-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	10/22/2001
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,3,5-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	10/22/2001
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
1-Chlorohexane	EPA 8260	Volatile Organics	NELAP	10/22/2001
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ 206)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ 194)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,3',4,4'-Hexachlorobiphenyl (BZ 128)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ 183)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ 187)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,5,5'-Hexachlorobiphenyl (BZ 141)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,4,5'-Pentachlorobiphenyl (BZ 87)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,5,5',6-Hexachlorobiphenyl (BZ 151)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',3,5'-Tetrachlorobiphenyl (BZ 44)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',4,5,5'-Pentachlorobiphenyl (BZ 101)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',4,5'-Tetrachlorobiphenyl (BZ 49)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2',5,5'-Tetrachlorobiphenyl (BZ 52)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

Laboratory Scope of Accreditation

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Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',5-Trichlorobiphenyl (BZ 18)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	10/22/2001
2,3,3',4',6-Pentachlorobiphenyl (BZ 110)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,3',4,4',5-Pentachlorobiphenyl (BZ 118)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,3',4,4'-Tetrachlorobiphenyl (BZ 66)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,3,4,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
2,3,4,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	10/22/2001
2,3',5-Trichlorobiphenyl (BZ 26)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,3,7,8-TCDF	EPA 8280	Extractable Organics	NELAP	10/22/2001
2,3,7,8-TCDF	EPA 8290	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8280	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	10/22/2001
2,3-Dichlorobiphenyl (BZ 5)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,4',5-Trichlorobiphenyl (BZ 31)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	10/22/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	10/22/2001
2-Chlorobiphenyl (BZ 1)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	10/22/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/22/2001
2-Hexanone	EPA 8260	Volatile Organics	NELAP	10/22/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	10/22/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	10/22/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
3,3'-Dichlorobiphenyl (BZ 11)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
3-Methylphenol (m-Cresol)	EPA 8270	Extractable Organics	NELAP	10/22/2001
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	10/22/2001
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	10/22/2001
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	10/22/2001
4-Methylphenol (p-Cresol)	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	10/22/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Acenaphthene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Acetone	EPA 8260	Volatile Organics	NELAP	10/22/2001
Acetonitrile	EPA 8260	Volatile Organics	NELAP	10/22/2001
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	10/22/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Allyl alcohol	EPA 8260	Volatile Organics	NELAP	10/22/2001
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	10/22/2001
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aluminum	EPA 6010	Metals	NELAP	10/22/2001
Amenable cyanide	EPA 9010/9014	General Chemistry	NELAP	10/22/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Anthracene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Antimony	EPA 6010	Metals	NELAP	10/22/2001
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001

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Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Arsenic	EPA 6010	Metals	NELAP	10/22/2001
Barium	EPA 6010	Metals	NELAP	10/22/2001
Benzene	EPA 8021	Volatile Organics	NELAP	10/22/2001
Benzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(a)anthracene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzo(k)fluoranthene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Benzoic acid	EPA 8270	Extractable Organics	NELAP	10/22/2001
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	10/22/2001
Beryllium	EPA 6010	Metals	NELAP	10/22/2001
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	10/22/2001
bis(2-Chloroisopropyl) ether	EPA 8270	Extractable Organics	NELAP	10/22/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	10/22/2001
Boron	EPA 6010	Metals	NELAP	10/22/2001
Bromobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	10/22/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Cadmium	EPA 6010	Metals	NELAP	10/22/2001
Calcium	EPA 6010	Metals	NELAP	10/22/2001
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	10/22/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	10/22/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	10/22/2001
Chloroprene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Chromium	EPA 6010	Metals	NELAP	10/22/2001
Chromium VI	EPA 7196	General Chemistry	NELAP	10/22/2001
Chrysene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Chrysene	EPA 8310	Extractable Organics	NELAP	10/22/2001
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	10/22/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	10/22/2001
cis-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	8/19/2002
Cobalt	EPA 6010	Metals	NELAP	10/22/2001
Copper	EPA 6010	Metals	NELAP	10/22/2001
Decachlorobiphenyl (BZ 209)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Dibenz(a,h) anthracene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Dibenz(a,h) anthracene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	10/22/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Dibromomethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Diesel range organics (DRO)	CA-LUFT	Extractable Organics	NELAP	10/22/2001
Diesel range organics (DRO)	WI-DRO	Extractable Organics	NELAP	10/22/2001
Diethyl ether	EPA 8260	Volatile Organics	NELAP	10/22/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	10/22/2001
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	10/22/2001
Ethylbenzene	EPA 8021	Volatile Organics	NELAP	10/22/2001
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Fluoranthene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA 8310	Extractable Organics	NELAP	10/22/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Gasoline range organics (GRO)	CA-LUFT	Extractable Organics	NELAP	10/22/2001
Gasoline range organics (GRO)	WI-GRO	Extractable Organics	NELAP	10/22/2001
Gasoline range organics (GRO)	WI-GRO	Extractable Organics	NELAP	10/22/2001
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	10/22/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Indeno(1,2,3-cd)pyrene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Iron	EPA 6010	Metals	NELAP	10/22/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	10/22/2001
Lead	EPA 6010	Metals	NELAP	10/22/2001
Magnesium	EPA 6010	Metals	NELAP	10/22/2001
Manganese	EPA 6010	Metals	NELAP	10/22/2001
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	10/22/2001
Methyl tert-butyl ether (MTBE)	EPA 8021	Volatile Organics	NELAP	10/22/2001
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	10/22/2001
Molybdenum	EPA 6010	Metals	NELAP	10/22/2001
Naphthalene	EPA 8021	Volatile Organics	NELAP	10/22/2001
Naphthalene	EPA 8260	Volatile Organics	NELAP	10/22/2001

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Naphthalene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Naphthalene	EPA 8310	Extractable Organics	NELAP	10/22/2001
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Nickel	EPA 6010	Metals	NELAP	10/22/2001
Nitrobenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	10/22/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	10/22/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	10/22/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	10/22/2001
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Phenanthrene	EPA 8310	Extractable Organics	NELAP	10/22/2001
Phenol	EPA 8270	Extractable Organics	NELAP	10/22/2001
Potassium	EPA 6010	Metals	NELAP	10/22/2001
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	10/22/2001
Pyrene	EPA 8310	Extractable Organics	NELAP	10/22/2001
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Selenium	EPA 6010	Metals	NELAP	10/22/2001
Silver	EPA 6010	Metals	NELAP	10/22/2001
Sodium	EPA 6010	Metals	NELAP	10/22/2001
Styrene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Synthetic Precipitation Leaching Procedure	EPA 1312	General Chemistry	NELAP	10/22/2001
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Thallium	EPA 6010	Metals	NELAP	10/22/2001
Tin	EPA 6010	Metals	NELAP	10/22/2001
Toluene	EPA 8021	Volatile Organics	NELAP	10/22/2001
Toluene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Total cyanide	EPA 9010/9014	General Chemistry	NELAP	10/22/2001
Total organic carbon	EPA 9060	General Chemistry	NELAP	10/22/2001
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	10/22/2001
Toxicity Characteristic Leaching Procedure	EPA 1311	General Chemistry	NELAP	10/22/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	10/22/2001
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	10/22/2001

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	10/22/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	10/22/2001
Vanadium	EPA 6010	Metals	NELAP	10/22/2001
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	10/22/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	10/22/2001
Xylene (total)	EPA 8021	Volatile Organics	NELAP	10/22/2001
Xylene (total)	EPA 8260	Volatile Organics	NELAP	10/22/2001
Zinc	EPA 6010	Metals	NELAP	10/22/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4,6,7,8-Hxcdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,4,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4,7,8-Pecdf	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,4,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,7,8-TCDF	EPA 8280	Extractable Organics	NELAP	7/1/2003

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,7,8-TCDF	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8280	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1-Trichloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1,1-Trichloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,1,2,2-Tetrachloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1,2,2-Tetrachloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1,2-Trichloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1,2-Trichloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,1-Dichloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,1-Dichloroethylene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,1-Dichloroethylene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdd	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,4,7,8-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdd	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,6,7,8-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdd	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8,9-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdd	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3,7,8-Pecdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
1,2,3-Trichloropropane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2,4-Trichlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2,4-Trimethylbenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2-Dichloro-1,1,2,2-tetrafluoroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dichlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2-Dichloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,2-Dichloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,2-Dichloropropane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2-Dichloropropane	EPA TO-15	Volatile Organics	NELAP	10/17/2003
1,3,5-Trimethylbenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,3-Butadiene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,3-Dichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,3-Dichlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
1,3-Dichloropropane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
1,4-Dichlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
2,3,4,6,7,8-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
2,3,4,7,8-Pecdf	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
2,3,7,8-TCDF	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA TO-9A	Extractable Organics	NELAP	10/22/2001
2-Butanone (Methyl ethyl ketone, MEK)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
4,4'-DDE	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
4,4'-DDT	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
4-Ethyltoluene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Acenaphthene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Acenaphthylene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Aldrin	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Anthracene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Aroclor-1016 (PCB-1016)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1221 (PCB-1221)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1232 (PCB-1232)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1242 (PCB-1242)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1248 (PCB-1248)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1254 (PCB-1254)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Aroclor-1260 (PCB-1260)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Benzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Benzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Benzene	EPA TO-3	Volatile Organics	NELAP	10/22/2001
Benzo(a)anthracene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzo(a)pyrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzo(b)fluoranthene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzo(e)pyrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzo(g,h,i)perylene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001

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Laboratory Scope of Accreditation

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State Laboratory ID: E87605 **EPA Lab Code: MN00064** **(612) 607-1700**

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzo(k)fluoranthene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Benzyl chloride	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Benzyl chloride	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Bromoform	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Carbon disulfide	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Carbon tetrachloride	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Chlorobenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Chlorobenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Chloroethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Chloroethane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Chloroform	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Chloroform	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Chrysene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
cis & trans-1,2-Dichloroethene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
cis-1,2-Dichloroethylene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
cis-1,3-Dichloropropene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
cis-1,3-Dichloropropene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Dibenz(a,h) anthracene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Dichlorodifluoromethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Dieldrin	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Ethane	RSK-175	Volatile Organics	NELAP	8/19/2002
Ethylbenzene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Ethylbenzene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Ethylbenzene	EPA TO-3	Volatile Organics	NELAP	10/22/2001
Ethylene	RSK-175	Volatile Organics	NELAP	8/19/2002
Fluoranthene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Fluorene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Heptachlor	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Heptachlor epoxide	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Hexachlorobutadiene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Hexachlorobutadiene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Indeno(1,2,3-cd)pyrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Methane	RSK-175	Volatile Organics	NELAP	8/19/2002
Methoxychlor	EPA TO-4A	Pesticides and PCB's	NELAP	8/19/2002
Methyl bromide (Bromomethane)	EPA TO-15	Volatile Organics	NELAP	10/17/2003

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State Laboratory ID: E87605 **EPA Lab Code:** MN00064 (612) 607-1700

E87605
Pace Analytical Services, Inc. - MN
1700 Elm Street, Suite 200
Minneapolis, MN 55414

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methyl chloride (Chloromethane)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Methyl chloride (Chloromethane)	EPA TO-15	Volatile Organics	NELAP	10/17/2003
Methyl isobutyl ketone (Hexone)	EPA TO-15	Volatile Organics	NELAP	10/17/2003
Methyl tert-butyl ether (MTBE)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Methylene chloride	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Methylene chloride	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Naphthalene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
n-Hexane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
p-Dioxane	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Phenanthrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Pyrene	EPA TO-13A	Extractable Organics	NELAP	10/22/2001
Styrene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Styrene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Tetrachloroethylene (Perchloroethylene)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Tetrachloroethylene (Perchloroethylene)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Toluene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Toluene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Toluene	EPA TO-3	Volatile Organics	NELAP	10/22/2001
trans-1,2-Dichloroethylene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
trans-1,3-Dichloropropylene	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
trans-1,3-Dichloropropylene	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Trichloroethene (Trichloroethylene)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Trichloroethene (Trichloroethylene)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Trichlorofluoromethane	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Vinyl acetate	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Vinyl acetate	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Vinyl chloride	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Vinyl chloride	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Xylene (total)	EPA TO-14A	Volatile Organics	NELAP	10/22/2001
Xylene (total)	EPA TO-15	Volatile Organics	NELAP	8/19/2002
Xylene (total)	EPA TO-3	Volatile Organics	NELAP	10/22/2001

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

FLORIDA DEPARTMENT OF

HEALTH

State of Florida
Department of Health, Bureau of Laboratories

This is to certify that

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

has complied with Florida Administrative Code 64E-1, for the examination of Environmental samples in the following categories:

Drinking Water
Dioxin, Primary Inorganic Contaminants, Secondary Inorganic Contaminants

Non-Potable Water
Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides-PCB's, Volatile Organics

Solid and Chemical Materials
Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides-PCB's, Volatile Organics

Biological Tissues
Extractable Organics, Pesticides-Herbicides-PCB's

Air and Emissions
Extractable Organics, Pesticides and PCB's, Volatile Organics

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

EFFECTIVE JULY 1, 2004 THROUGH JUNE 30, 2005

Ming S. Chan, Ph.D.
Bureau Chief, Bureau of Laboratories
Florida Department of Health
DH Form 1697, 7/03
NON-TRANSFERABLE 06/22/2004-E87177

rec'd 06/25/04

Geographics

Jeb Bush
Governor

FLORIDA DEPARTMENT OF HEALTH

John O. Agwunobi, M.D., M.B.A.
Secretary

July 1, 2004
I.D.# E87177

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

rec'd 07/06/04 um

Dear Laboratory Director:

Based on the authority mandated by sections 381.00591, 403.0625 and 403.863 Florida Statutes and chapter 64E-1 Florida Administrative Code (FAC), I hereby declare that

STL Knoxville

is granted additional certification to perform analyses for the following fields of accreditation:

Air & Emissions

ANALYTE	METHOD
ACENAPHTHENE	TO-13A
ACENAPHTHYLENE	TO-13A
ANTHRACENE	TO-13A
BENZ(a)ANTHRACENE	TO-13A
BENZO(a)PYRENE	TO-13A
BENZO(e)PYRENE	TO-13A
BENZO(b)FLUORANTHENE	TO-13A
BENZO(k)FLUORANTHENE	TO-13A
BENZO(g,h,I)PERYLENE	TO-13A
CHRYSENE	TO-13A
DIBENZ(a,h)ANTHRACENE	TO-13A
FLUORANTHENE	TO-13A
FLUORENE	TO-13A
INDENO(1,2,3-c,d)PYRENE	TO-13A
NAPHTHALENE	TO-13A
PHENANTHRENE	TO-13A
PYRENE	TO-13A

Non-Potable Water/Solid and Chemical Materials/Biological Tissue

ANALYTE	METHOD
2-chlorobiphenyl	EPA 1668
3-chlorobiphenyl	EPA 1668
4-chlorobiphenyl	EPA 1668
2,2'-dichlorobiphenyl	EPA 1668
2,3-dichlorobiphenyl	EPA 1668
2,3'-dichlorobiphenyl	EPA 1668
2,4-dichlorobiphenyl	EPA 1668
2,4'-dichlorobiphenyl	EPA 1668
2,5-dichlorobiphenyl	EPA 1668
2,6-dichlorobiphenyl	EPA 1668
3,3'-dichlorobiphenyl	EPA 1668

nelap

3,4-dichlorobiphenyl	EPA 1668
3,4'-dichlorobiphenyl	EPA 1668
3,5-dichlorobiphenyl	EPA 1668
4,4'-dichlorobiphenyl	EPA 1668
2,2',3-trichlorobiphenyl	EPA 1668
2,2',4-trichlorobiphenyl	EPA 1668
2,2',5-trichlorobiphenyl	EPA 1668
2,2',6-trichlorobiphenyl	EPA 1668
2,3,3'-trichlorobiphenyl	EPA 1668
2,3,4-trichlorobiphenyl	EPA 1668
2,3,4'-trichlorobiphenyl	EPA 1668
2,3,5-trichlorobiphenyl	EPA 1668
2,3,6-trichlorobiphenyl	EPA 1668
2,3',4-trichlorobiphenyl	EPA 1668
2,3',5-trichlorobiphenyl	EPA 1668
2,3',6-trichlorobiphenyl	EPA 1668
2,4,4'-trichlorobiphenyl	EPA 1668
2,4,5-trichlorobiphenyl	EPA 1668
2,4,6-trichlorobiphenyl	EPA 1668
2,4',5-trichlorobiphenyl	EPA 1668
2,4',6-trichlorobiphenyl	EPA 1668
2',3,4-trichlorobiphenyl	EPA 1668
2,3',4'-trichlorobiphenyl	EPA 1668
2',3,5-trichlorobiphenyl	EPA 1668
2,3',5'-trichlorobiphenyl	EPA 1668
3,3',4-trichlorobiphenyl	EPA 1668
3,3',5-trichlorobiphenyl	EPA 1668
3,4,4'-trichlorobiphenyl	EPA 1668
3,4,5-trichlorobiphenyl	EPA 1668
3,4',5-trichlorobiphenyl	EPA 1668
2,2',3,3'-tetrachlorobiphenyl	EPA 1668
2,2',3,4-tetrachlorobiphenyl	EPA 1668
2,2',3,4'-tetrachlorobiphenyl	EPA 1668
2,2',3,5-tetrachlorobiphenyl	EPA 1668
2,2',3,5'-tetrachlorobiphenyl	EPA 1668
2,2',3,6-tetrachlorobiphenyl	EPA 1668
2,2',3,6'-tetrachlorobiphenyl	EPA 1668
2,2',4,4'-tetrachlorobiphenyl	EPA 1668
2,2',4,5-tetrachlorobiphenyl	EPA 1668
2,2',4,5'-tetrachlorobiphenyl	EPA 1668
2,2',4,6-tetrachlorobiphenyl	EPA 1668
2,2',4,6'-tetrachlorobiphenyl	EPA 1668
2,2',5,5'-tetrachlorobiphenyl	EPA 1668
2,2',5,6'-tetrachlorobiphenyl	EPA 1668
2,2',6,6'-tetrachlorobiphenyl	EPA 1668
2,3,3',4-tetrachlorobiphenyl	EPA 1668
2,3,3',4'-tetrachlorobiphenyl	EPA 1668
2,3,3',5-tetrachlorobiphenyl	EPA 1668
2,3,3',5'-tetrachlorobiphenyl	EPA 1668
2,3,3',6-tetrachlorobiphenyl	EPA 1668
2,3,4,4'-tetrachlorobiphenyl	EPA 1668
2,3,4,5-tetrachlorobiphenyl	EPA 1668
2,3,4,6-tetrachlorobiphenyl	EPA 1668
2,3,4',5-tetrachlorobiphenyl	EPA 1668
2,3,4',6-tetrachlorobiphenyl	EPA 1668
2,3,5,6-tetrachlorobiphenyl	EPA 1668
2,3',4,4'-tetrachlorobiphenyl	EPA 1668
2,3',4,5-tetrachlorobiphenyl	EPA 1668
2,3',4,5'-tetrachlorobiphenyl	EPA 1668
2,3',4,6-tetrachlorobiphenyl	EPA 1668

2,3',4',5-tetrachlorobiphenyl	EPA 1668
2,3',4',6-tetrachlorobiphenyl	EPA 1668
2,3',5,5'-tetrachlorobiphenyl	EPA 1668
2,3',5',6-tetrachlorobiphenyl	EPA 1668
2,4,4',5-tetrachlorobiphenyl	EPA 1668
2,4,4',6-tetrachlorobiphenyl	EPA 1668
2',3,4,5-tetrachlorobiphenyl	EPA 1668
2,3',4',5'-tetrachlorobiphenyl	EPA 1668
3,3',4,4'-tetrachlorobiphenyl	EPA 1668
3,3',4,5-tetrachlorobiphenyl	EPA 1668
3,3',4,5'-tetrachlorobiphenyl	EPA 1668
3,3',5,5'-tetrachlorobiphenyl	EPA 1668
3,4,4',5-tetrachlorobiphenyl	EPA 1668
2,2',3,3',4-pentachlorobiphenyl	EPA 1668
2,2',3,3',5-pentachlorobiphenyl	EPA 1668
2,2',3,3',6-pentachlorobiphenyl	EPA 1668
2,2',3,4,4'-pentachlorobiphenyl	EPA 1668
2,2',3,4,5-pentachlorobiphenyl	EPA 1668
2,2',3,4,5'-pentachlorobiphenyl	EPA 1668
2,2',3,4,6-pentachlorobiphenyl	EPA 1668
2,2',3,4,6'-pentachlorobiphenyl	EPA 1668
2,2',3,4',5-pentachlorobiphenyl	EPA 1668
2,2',3,4',6-pentachlorobiphenyl	EPA 1668
2,2',3,5,5'-pentachlorobiphenyl	EPA 1668
2,2',3,5,6-pentachlorobiphenyl	EPA 1668
2,2',3,5,6'-pentachlorobiphenyl	EPA 1668
2,2',3,5',6-pentachlorobiphenyl	EPA 1668
2,2',3,6,6'-pentachlorobiphenyl	EPA 1668
2,2',3',4,5-pentachlorobiphenyl	EPA 1668
2,2',3,4',5'-pentachlorobiphenyl	EPA 1668
2,2',3',4,6-pentachlorobiphenyl	EPA 1668
2,2',3,4',6'-pentachlorobiphenyl	EPA 1668
2,2',4,4',5-pentachlorobiphenyl	EPA 1668
2,2',4,4',6-pentachlorobiphenyl	EPA 1668
2,2',4,5,5'-pentachlorobiphenyl	EPA 1668
2,2',4,5,6-pentachlorobiphenyl	EPA 1668
2,2',4,5',6-pentachlorobiphenyl	EPA 1668
2,2',4,6,6'-pentachlorobiphenyl	EPA 1668
2,3,3',4,4'-pentachlorobiphenyl	EPA 1668
2,3,3',4,5-pentachlorobiphenyl	EPA 1668
2,3,3',4',5-pentachlorobiphenyl	EPA 1668
2,3,3',4,5'-pentachlorobiphenyl	EPA 1668
2,3,3',4,6-pentachlorobiphenyl	EPA 1668
2,3,3',4',6-pentachlorobiphenyl	EPA 1668
2,3,3',5,5'-pentachlorobiphenyl	EPA 1668
2,3,3',5,6-pentachlorobiphenyl	EPA 1668
2,3,3',5',6-pentachlorobiphenyl	EPA 1668
2,3,4,4',5-pentachlorobiphenyl	EPA 1668
2,3,4,4',6-pentachlorobiphenyl	EPA 1668
2,3,4,5,6-pentachlorobiphenyl	EPA 1668
2,3,4',5,6-pentachlorobiphenyl	EPA 1668
2,3',4,4',5-pentachlorobiphenyl	EPA 1668
2,3',4,4',6-pentachlorobiphenyl	EPA 1668
2,3',4,5,5'-pentachlorobiphenyl	EPA 1668

2,3',4,5',6-pentachlorobiphenyl	EPA 1668
2',3,3',4,5-pentachlorobiphenyl	EPA 1668
2,3,3',4',5'-pentachlorobiphenyl	EPA 1668
2',3,4,4',5-pentachlorobiphenyl	EPA 1668
2,3',4,4',5'-pentachlorobiphenyl	EPA 1668
2',3,4,5,5'-pentachlorobiphenyl	EPA 1668
2,3',4',5',5-pentachlorobiphenyl	EPA 1668
2',3,4,5,6'-pentachlorobiphenyl	EPA 1668
2,3',4',5',6-pentachlorobiphenyl	EPA 1668
3,3',4,4',5-pentachlorobiphenyl	EPA 1668
3,3',4,5,5'-pentachlorobiphenyl	EPA 1668
2,2',3,3',4,4'-hexachlorobiphenyl	EPA 1668
2,2',3,3',4,5-hexachlorobiphenyl	EPA 1668
2,2',3,3',4,5'-hexachlorobiphenyl	EPA 1668
2,2',3,3',4,6-hexachlorobiphenyl	EPA 1668
2,2',3,3',4,6'-hexachlorobiphenyl	EPA 1668
2,2',3,3',5,5'-hexachlorobiphenyl	EPA 1668
2,2',3,3',5,6-hexachlorobiphenyl	EPA 1668
2,2',3,3',5,6'-hexachlorobiphenyl	EPA 1668
2,2',3,3',6,6'-hexachlorobiphenyl	EPA 1668
2,2',3,4,4',5-hexachlorobiphenyl	EPA 1668
2,2',3,4,4',5'-hexachlorobiphenyl	EPA 1668
2,2',3,4,4',6-hexachlorobiphenyl	EPA 1668
2,2',3,4,4',6'-hexachlorobiphenyl	EPA 1668
2,2',3,4,5,5'-hexachlorobiphenyl	EPA 1668
2,2',3,4,5,6-hexachlorobiphenyl	EPA 1668
2,2',3,4,5,6'-hexachlorobiphenyl	EPA 1668
2,2',3,4,5',6-hexachlorobiphenyl	EPA 1668
2,2',3,4,6,6'-hexachlorobiphenyl	EPA 1668
2,2',3,4',5,5'-hexachlorobiphenyl	EPA 1668
2,2',3,4',5,6-hexachlorobiphenyl	EPA 1668
2,2',3,4',5,6'-hexachlorobiphenyl	EPA 1668
2,2',3,4',5',6-hexachlorobiphenyl	EPA 1668
2,2',3,4',6,6'-hexachlorobiphenyl	EPA 1668
2,2',3,5,5',6-hexachlorobiphenyl	EPA 1668
2,2',3,5,6,6'-hexachlorobiphenyl	EPA 1668
2,2',4,4',5,5'-hexachlorobiphenyl	EPA 1668
2,2',4,4',5,6'-hexachlorobiphenyl	EPA 1668
2,2',4,4',6,6'-hexachlorobiphenyl	EPA 1668
2,3,3',4,4',5-hexachlorobiphenyl	EPA 1668
2,3,3',4,4',5'-hexachlorobiphenyl	EPA 1668
2,3,3',4,4',6-hexachlorobiphenyl	EPA 1668
2,3,3',4,5,5'-hexachlorobiphenyl	EPA 1668
2,3,3',4,5,6-hexachlorobiphenyl	EPA 1668
2,3,3',4,5',6-hexachlorobiphenyl	EPA 1668
2,3,3',4',5,5'-hexachlorobiphenyl	EPA 1668
2,3,3',4',5,6-hexachlorobiphenyl	EPA 1668
2,3,3',4',5',6-hexachlorobiphenyl	EPA 1668
2,3,3',5,5',6-hexachlorobiphenyl	EPA 1668
2,3,4,4',5,6-hexachlorobiphenyl	EPA 1668
2,3',4,4',5,5'-hexachlorobiphenyl	EPA 1668
2,3',4,4',5',6-hexachlorobiphenyl	EPA 1668
3,3',4,4',5,5'-hexachlorobiphenyl	EPA 1668
2,2',3,3',4,4',5-heptachlorobiphenyl	EPA 1668
2,2',3,3',4,4',6-heptachlorobiphenyl	EPA 1668
2,2',3,3',4,5,5'-heptachlorobiphenyl	EPA 1668
2,2',3,3',4,5,6-heptachlorobiphenyl	EPA 1668
2,2',3,3',4,5,6'-heptachlorobiphenyl	EPA 1668
2,2',3,3',4,5',6-heptachlorobiphenyl	EPA 1668
2,2',3,3',4,6,6'-heptachlorobiphenyl	EPA 1668

2,2',3,3',4',5,6-heptachlorobiphenyl	EPA 1668
2,2',3,3',4,5',6'-heptachlorobiphenyl	EPA 1668
2,2',3,3',5,5',6-heptachlorobiphenyl	EPA 1668
2,2',3,3',5,6,6'-heptachlorobiphenyl	EPA 1668
2,2',3,4,4',5,5'-heptachlorobiphenyl	EPA 1668
2,2',3,4,4',5,6-heptachlorobiphenyl	EPA 1668
2,2',3,4,4',5,6'-heptachlorobiphenyl	EPA 1668
2,2',3,4,4',5',6-heptachlorobiphenyl	EPA 1668
2,2',3,4,4',6,6'-heptachlorobiphenyl	EPA 1668
2,2',3,4,5,5',6-heptachlorobiphenyl	EPA 1668
2,2',3,4,5,6,6'-heptachlorobiphenyl	EPA 1668
2,2',3,4',5,5',6-heptachlorobiphenyl	EPA 1668
2,2',3,4',5,6,6'-heptachlorobiphenyl	EPA 1668
2,3,3',4,4',5,5'-heptachlorobiphenyl	EPA 1668
2,3,3',4,4',5,6-heptachlorobiphenyl	EPA 1668
2,3,3',4,4',5',6-heptachlorobiphenyl	EPA 1668
2,3,3',4,5,5',6-heptachlorobiphenyl	EPA 1668
2,3,3',4',5,5',6-heptachlorobiphenyl	EPA 1668
2,2',3,3',4,4',5,5'-octachlorobiphenyl	EPA 1668
2,2',3,3',4,4',5,6-octachlorobiphenyl	EPA 1668
2,2',3,3',4,4',5,6'-octachlorobiphenyl	EPA 1668
2,2',3,3',4,4',6,6'-octachlorobiphenyl	EPA 1668
2,2',3,3',4,5,5',6-octachlorobiphenyl	EPA 1668
2,2',3,3',4,5,6,6'-octachlorobiphenyl	EPA 1668
2,2',3,3',4,5',6,6'-octachlorobiphenyl	EPA 1668
2,2',3,3',4,5,5',6'-octachlorobiphenyl	EPA 1668
2,2',3,3',5,5',6,6'-octachlorobiphenyl	EPA 1668
2,2',3,4,4',5,5',6-octachlorobiphenyl	EPA 1668
2,2',3,4,4',5,6,6'-octachlorobiphenyl	EPA 1668
2,3,3',4,4',5,5',6-octachlorobiphenyl	EPA 1668
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	EPA 1668
2,2',3,3',4,4',5,6,6'-nonachlorobiphenyl	EPA 1668
2,2',3,3',4,5,5',6,6'-nonachlorobiphenyl	EPA 1668
2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	EPA 1668

Certification in this case specifies that the above named laboratory has met the minimum requirements for a certified laboratory as set forth in section 64E-1.102 FAC.

This certification is effective as of April 14, 2004 and shall be in effect until June 30, 2005 or until revoked by the Florida Department of Health.

If I can be of any further assistance, feel free to call Michael Antoine at (904) 791-1578.

Sincerely,

Stephen A. Arms
Administrator
Environmental Laboratory Certification Program

By: Michael Antoine
Biological Scientist III
Environmental Laboratory Certification Program

SAA\MRA\mra

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 1613	Dioxin	NELAP	2/1/2002
Aluminum	EPA 200.7	Secondary Inorganic Contaminants	NELAP	2/1/2002
Arsenic	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/1/2002
Barium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/1/2002
Beryllium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/1/2002
Bromide	EPA 300.0	Primary Inorganic Contaminants	NELAP	2/1/2002
Cadmium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/1/2002
Chloride	EPA 300.0	Secondary Inorganic Contaminants	NELAP	2/1/2002
Chromium	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/1/2002
Copper	EPA 200.7	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	2/1/2002
Manganese	EPA 200.7	Secondary Inorganic Contaminants	NELAP	2/1/2002
Mercury	EPA 245.1	Primary Inorganic Contaminants	NELAP	2/1/2002
Nickel	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/1/2002
Nitrate	EPA 300.0	Primary Inorganic Contaminants	NELAP	2/1/2002
Nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP	2/1/2002
Orthophosphate as P	EPA 300.0	Primary Inorganic Contaminants	NELAP	2/1/2002
Perchlorate	EPA 314.0	Secondary Inorganic Contaminants	NELAP	9/30/2002
pH	EPA 150.1	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	2/1/2002
Silica as SiO2	EPA 200.7	Primary Inorganic Contaminants	NELAP	2/1/2002
Silver	EPA 200.7	Secondary Inorganic Contaminants	NELAP	2/1/2002
Sulfate	EPA 300.0	Primary Inorganic Contaminants	NELAP	2/1/2002
Total nitrate-nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP	2/1/2002
Zinc	EPA 200.7	Secondary Inorganic Contaminants	NELAP	2/1/2002

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87177 EPA Lab Code: TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,4,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,4,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,6,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,7,8,9-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,7,8,9-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,7,8-Pecdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 1613	Extractable Organics	NELAP	2/1/2002
1,2,3,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8330	Extractable Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dinitrobenzene (1,3-DNB)	EPA 8330	Extractable Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ 206)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ 206)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ 194)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ 207)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ 195)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ 196)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ 197)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ 171)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4'-Hexachlorobiphenyl (BZ 128)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ 208)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ 198)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ 199)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ 172)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ 200)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ 201)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ 173)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ 174)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ 175)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ 177)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5-Hexachlorobiphenyl (BZ 129)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5'-Hexachlorobiphenyl (BZ 130)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ 176)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,6-Hexachlorobiphenyl (BZ 131)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,6'-Hexachlorobiphenyl (BZ 132)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4-Pentachlorobiphenyl (BZ 82)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ 202)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ 178)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,5'-Hexachlorobiphenyl (BZ 133)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ 179)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,6-Hexachlorobiphenyl (BZ 134)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,6'-Hexachlorobiphenyl (BZ 135)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5-Pentachlorobiphenyl (BZ 83)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',6,6'-Hexachlorobiphenyl (BZ 136)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',6-Pentachlorobiphenyl (BZ 84)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3'-Tetrachlorobiphenyl (BZ 40)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ 203)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ 204)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ 181)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ 182)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ 183)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ 183)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5-Hexachlorobiphenyl (BZ 137)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ 184)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',6-Hexachlorobiphenyl (BZ 139)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',6'-Hexachlorobiphenyl (BZ 140)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4'-Pentachlorobiphenyl (BZ 85)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ 185)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ 187)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ 187)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,5,5'-Hexachlorobiphenyl (BZ 141)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,5'-Hexachlorobiphenyl (BZ 141)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4',5,5'-Hexachlorobiphenyl (BZ 146)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ 186)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ 188)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,6-Hexachlorobiphenyl (BZ 142)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,6'-Hexachlorobiphenyl (BZ 143)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5',6-Hexachlorobiphenyl (BZ 144)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,6-Hexachlorobiphenyl (BZ 147)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,6'-Hexachlorobiphenyl (BZ 148)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5',6-Hexachlorobiphenyl (BZ 149)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5-Pentachlorobiphenyl (BZ 86)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5'-Pentachlorobiphenyl (BZ 87)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5'-Pentachlorobiphenyl (BZ 87)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4',5-Pentachlorobiphenyl (BZ 90)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5'-Pentachlorobiphenyl (BZ 97)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,6,6'-Hexachlorobiphenyl (BZ 145)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',6,6'-Hexachlorobiphenyl (BZ 150)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,6-Pentachlorobiphenyl (BZ 88)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,6'-Pentachlorobiphenyl (BZ 89)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',6-Pentachlorobiphenyl (BZ 91)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',6'-Pentachlorobiphenyl (BZ 98)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4-Tetrachlorobiphenyl (BZ 41)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4'-Tetrachlorobiphenyl (BZ 42)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,5',6-Hexachlorobiphenyl (BZ 151)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,5',6-Hexachlorobiphenyl (BZ 151)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,5,5'-Pentachlorobiphenyl (BZ 92)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,6,6'-Hexachlorobiphenyl (BZ 152)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,6-Pentachlorobiphenyl (BZ 93)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,6'-Pentachlorobiphenyl (BZ 94)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5',6-Pentachlorobiphenyl (BZ 95)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5-Tetrachlorobiphenyl (BZ 43)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5'-Tetrachlorobiphenyl (BZ 44)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',3,5'-Tetrachlorobiphenyl (BZ 44)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,6,6'-Pentachlorobiphenyl (BZ 96)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,6-Tetrachlorobiphenyl (BZ 45)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,6'-Tetrachlorobiphenyl (BZ 46)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3-Trichlorobiphenyl (BZ 16)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,4',5,6'-Hexachlorobiphenyl (BZ 154)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',5-Pentachlorobiphenyl (BZ 99)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',6,6'-Hexachlorobiphenyl (BZ 155)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',6-Pentachlorobiphenyl (BZ 100)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4'-Tetrachlorobiphenyl (BZ 47)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5,5'-Pentachlorobiphenyl (BZ 101)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5,5'-Pentachlorobiphenyl (BZ 101)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,5,6'-Pentachlorobiphenyl (BZ 102)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5',6-Pentachlorobiphenyl (BZ 103)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5-Tetrachlorobiphenyl (BZ 48)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5'-Tetrachlorobiphenyl (BZ 49)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,6,6'-Pentachlorobiphenyl (BZ 104)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,6-Tetrachlorobiphenyl (BZ 50)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,6'-Tetrachlorobiphenyl (BZ 51)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4-Trichlorobiphenyl (BZ 17)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5,5'-Tetrachlorobiphenyl (BZ 52)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5,5'-Tetrachlorobiphenyl (BZ 52)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',5,6'-Tetrachlorobiphenyl (BZ 53)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5-Trichlorobiphenyl (BZ 18)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5-Trichlorobiphenyl (BZ 18)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',6,6'-Tetrachlorobiphenyl (BZ 54)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',6-Trichlorobiphenyl (BZ 19)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2'-Dichlorobiphenyl (BZ 4)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ 205)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ 189)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ 190)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ 191)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5-Hexachlorobiphenyl (BZ 156)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,3',4,4',5'-Hexachlorobiphenyl (BZ 157)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',6-Hexachlorobiphenyl (BZ 158)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4'-Pentachlorobiphenyl (BZ 105)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ 192)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ 193)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5,5'-Hexachlorobiphenyl (BZ 159)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5,5'-Hexachlorobiphenyl (BZ 162)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5,6-Hexachlorobiphenyl (BZ 160)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5',6-Hexachlorobiphenyl (BZ 161)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5,6-Hexachlorobiphenyl (BZ 163)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5',6-Hexachlorobiphenyl (BZ 164)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5-Pentachlorobiphenyl (BZ 106)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5-Pentachlorobiphenyl (BZ 107)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5'-Pentachlorobiphenyl (BZ 108)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5'-Pentachlorobiphenyl (BZ 122)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,6-Pentachlorobiphenyl (BZ 109)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',6-Pentachlorobiphenyl (BZ 110)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',6-Pentachlorobiphenyl (BZ 110)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3,3',4-Tetrachlorobiphenyl (BZ 55)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4'-Tetrachlorobiphenyl (BZ 56)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5,5',6-Hexachlorobiphenyl (BZ 165)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5,5'-Pentachlorobiphenyl (BZ 111)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5,6-Pentachlorobiphenyl (BZ 112)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5',6-Pentachlorobiphenyl (BZ 113)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5-Tetrachlorobiphenyl (BZ 57)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5'-Tetrachlorobiphenyl (BZ 58)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',6-Tetrachlorobiphenyl (BZ 59)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3'-Trichlorobiphenyl (BZ 20)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5,5'-Hexachlorobiphenyl (BZ 167)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4',5,6-Hexachlorobiphenyl (BZ 166)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5',6-Hexachlorobiphenyl (BZ 168)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2',3,4,4',5-Pentachlorobiphenyl	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4',5-Pentachlorobiphenyl (BZ 114)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5-Pentachlorobiphenyl (BZ 118)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5'-Pentachlorobiphenyl (BZ 123)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4',6-Pentachlorobiphenyl (BZ 115)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3',4,4',6-Pentachlorobiphenyl (BZ 119)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4'-Tetrachlorobiphenyl (BZ 60)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4'-Tetrachlorobiphenyl (BZ 66)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4'-Tetrachlorobiphenyl (BZ 66)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3',4,5,5'-Pentachlorobiphenyl (BZ 120)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5,5'-Pentachlorobiphenyl (BZ 124)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,5,6-Pentachlorobiphenyl (BZ 116)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4',5,6-Pentachlorobiphenyl (BZ 117)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,5',6-Pentachlorobiphenyl (BZ 121)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5',6-Pentachlorobiphenyl (BZ 125)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,5-Tetrachlorobiphenyl (BZ 61)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4',5-Tetrachlorobiphenyl (BZ 63)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,5-Tetrachlorobiphenyl (BZ 67)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,5'-Tetrachlorobiphenyl (BZ 68)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5-Tetrachlorobiphenyl (BZ 70)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5'-Tetrachlorobiphenyl (BZ 76)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,6,7,8-Hxcdf	EPA 1613	Extractable Organics	NELAP	2/1/2002
2,3,4,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4,6-Tetrachlorobiphenyl (BZ 62)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4',6-Tetrachlorobiphenyl (BZ 64)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,6-Tetrachlorobiphenyl (BZ 69)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',6-Tetrachlorobiphenyl (BZ 71)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,7,8-Pecdf	EPA 1613	Extractable Organics	NELAP	2/1/2002
2,3,4,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4-Trichlorobiphenyl (BZ 21)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4'-Trichlorobiphenyl (BZ 22)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4-Trichlorobiphenyl (BZ 25)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4'-Trichlorobiphenyl (BZ 33)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5,5'-Tetrachlorobiphenyl (BZ 72)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,5,6-Tetrachlorobiphenyl (BZ 65)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5',6-Tetrachlorobiphenyl (BZ 73)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,5-Trichlorobiphenyl (BZ 23)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5-Trichlorobiphenyl (BZ 26)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5'-Trichlorobiphenyl (BZ 34)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,6-Trichlorobiphenyl (BZ 24)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',6-Trichlorobiphenyl (BZ 27)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,7,8-TCDF	EPA 1613	Extractable Organics	NELAP	2/1/2002
2,3,7,8-TCDF	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 1613	Extractable Organics	NELAP	2/1/2002
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3-Dichlorobiphenyl (BZ 5)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3-Dichlorobiphenyl (BZ 5)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3'-Dichlorobiphenyl (BZ 6)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,4',5-Tetrachlorobiphenyl (BZ 74)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,4',6-Tetrachlorobiphenyl (BZ 75)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,4'-Trichlorobiphenyl (BZ 28)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,5-Trichlorobiphenyl (BZ 29)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4',5-Trichlorobiphenyl (BZ 31)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4',5-Trichlorobiphenyl (BZ 31)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trichlorobiphenyl (BZ 30)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4',6-Trichlorobiphenyl (BZ 32)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trinitrotoluene (2,4,6-TNT)	EPA 8330	Extractable Organics	NELAP	7/1/2003
2,4-Dichlorobiphenyl (BZ 7)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4'-Dichlorobiphenyl (BZ 8)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrotoluene (2,4-DNT)	EPA 8330	Extractable Organics	NELAP	7/1/2003
2,5-Dichlorobiphenyl (BZ 9)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,6-Dichlorobiphenyl (BZ 10)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dinitrotoluene (2,6-DNT)	EPA 8330	Extractable Organics	NELAP	7/1/2003
2-Amino-4,6-dinitrotoluene (2-am-dnt)	EPA 8330	Extractable Organics	NELAP	7/1/2003
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chlorobiphenyl (BZ 1)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2-Chlorobiphenyl (BZ 1)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrotoluene	EPA 8330	Extractable Organics	NELAP	7/1/2003
3,3',4,4',5,5'-Hexachlorobiphenyl (BZ 169)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,4',5-Pentachlorobiphenyl (BZ 126)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,4'-Tetrachlorobiphenyl (BZ 77)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,5,5'-Pentachlorobiphenyl (BZ 127)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,5-Tetrachlorobiphenyl (BZ 78)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,5'-Tetrachlorobiphenyl (BZ 79)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4-Trichlorobiphenyl (BZ 35)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',5,5'-Tetrachlorobiphenyl (BZ 80)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',5-Trichlorobiphenyl (BZ 36)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3'-Dichlorobiphenyl (BZ 11)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4,4',5-Tetrachlorobiphenyl (BZ 81)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4,4'-Trichlorobiphenyl (BZ 37)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4,5-Trichlorobiphenyl (BZ 38)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4',5-Trichlorobiphenyl (BZ 39)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4-Dichlorobiphenyl (BZ 12)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4'-Dichlorobiphenyl (BZ 13)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,5-Dichlorobiphenyl (BZ 14)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3-Chlorobiphenyl (BZ 2)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
3-Nitrotoluene	EPA 8330	Extractable Organics	NELAP	7/1/2003
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-Dichlorobiphenyl (BZ 15)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
4-Amino-2,6-dinitrotoluene (4-am-dnt)	EPA 8330	Extractable Organics	NELAP	7/1/2003
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
4-Chlorobiphenyl (BZ 3)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Methylphenol (p-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrotoluene	EPA 8330	Extractable Organics	NELAP	7/1/2003
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acetone	EPA 8260	Volatile Organics	NELAP	7/1/2003
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aluminum	EPA 200.7	Metals	NELAP	2/1/2002
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Amenable cyanide	EPA 9010/9012	General Chemistry	NELAP	7/1/2003
Aniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Antimony	EPA 200.7	Metals	NELAP	2/1/2002
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Arsenic	EPA 200.7	Metals	NELAP	2/1/2002
Arsenic	EPA 6010	Metals	NELAP	2/1/2002
Barium	EPA 200.7	Metals	NELAP	2/1/2002
Barium	EPA 6010	Metals	NELAP	7/1/2003
Benzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Benzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003

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E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Beryllium	EPA 200.7	Metals	NELAP	2/1/2002
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroisopropyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Boron	EPA 200.7	Metals	NELAP	2/1/2002
Boron	EPA 6010	Metals	NELAP	7/1/2003
Bromide	EPA 300.0	General Chemistry	NELAP	2/1/2002
Bromide	EPA 9056	General Chemistry	NELAP	7/1/2003
Bromobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromoform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Cadmium	EPA 200.7	Metals	NELAP	2/1/2002
Cadmium	EPA 6010	Metals	NELAP	2/1/2002
Calcium	EPA 200.7	Metals	NELAP	2/1/2002
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Carbazole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Chloride	EPA 300.0	General Chemistry	NELAP	2/1/2002
Chloride	EPA 9056	General Chemistry	NELAP	7/1/2003
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chromium	EPA 200.7	Metals	NELAP	2/1/2002
Chromium	EPA 6010	Metals	NELAP	7/1/2003

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chrysene	EPA 8270	Extractable Organics	NELAP	7/1/2003
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Cobalt	EPA 200.7	Metals	NELAP	2/1/2002
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Copper	EPA 200.7	Metals	NELAP	2/1/2002
Copper	EPA 6010	Metals	NELAP	2/1/2002
Decachlorobiphenyl (BZ 209)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Dibenz(a,h) anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluoride	EPA 300.0	General Chemistry	NELAP	2/1/2002
Fluoride	EPA 9056	General Chemistry	NELAP	7/1/2003
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	7/1/2003

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 EPA Lab Code: TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Iron	EPA 200.7	Metals	NELAP	2/1/2002
Iron	EPA 6010	Metals	NELAP	7/1/2003
Isophorone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Lead	EPA 200.7	Metals	NELAP	2/1/2002
Lead	EPA 6010	Metals	NELAP	2/1/2002
Lithium	EPA 6010	Metals	NELAP	7/1/2003
Magnesium	EPA 200.7	Metals	NELAP	2/1/2002
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 200.7	Metals	NELAP	2/1/2002
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Mercury	EPA 245.1	Metals	NELAP	2/1/2002
Mercury	EPA 7470	Metals	NELAP	2/1/2002
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Molybdenum	EPA 200.7	Metals	NELAP	2/1/2002
Molybdenum	EPA 6010	Metals	NELAP	2/1/2002
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Nickel	EPA 200.7	Metals	NELAP	2/1/2002
Nickel	EPA 6010	Metals	NELAP	2/1/2002
Nitrate	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrate as N	EPA 300.0	General Chemistry	NELAP	2/1/2002
Nitrate-nitrite	EPA 300.0	General Chemistry	NELAP	2/1/2002
Nitrite	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrite as N	EPA 300.0	General Chemistry	NELAP	2/1/2002
Nitrobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nitrobenzene	EPA 8330	Extractable Organics	NELAP	7/1/2003
Nitroglycerin	EPA 8332	Extractable Organics	NELAP	7/1/2003
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	EPA 8330	Extractable Organics	NELAP	7/1/2003
Orthophosphate as P	EPA 300.0	General Chemistry	NELAP	2/1/2002
Orthophosphate as P	EPA 9056	General Chemistry	NELAP	7/1/2003
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
pH	EPA 150.1	General Chemistry	NELAP	2/1/2002
pH	EPA 9040	General Chemistry	NELAP	7/1/2003
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Potassium	EPA 200.7	Metals	NELAP	2/1/2002
Potassium	EPA 6010	Metals	NELAP	2/1/2002
Pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pyridine	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pyridine	EPA 8270	Extractable Organics	NELAP	7/1/2003
RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	EPA 8330	Extractable Organics	NELAP	7/1/2003
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Selenium	EPA 200.7	Metals	NELAP	2/1/2002
Selenium	EPA 6010	Metals	NELAP	2/1/2002
Silicon	EPA 200.7	Metals	NELAP	2/1/2002
Silicon	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 200.7	Metals	NELAP	2/1/2002
Silver	EPA 6010	Metals	NELAP	7/1/2003
Sodium	EPA 200.7	Metals	NELAP	2/1/2002
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Strontium	EPA 6010	Metals	NELAP	7/1/2003
Styrene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Sulfate	EPA 300.0	General Chemistry	NELAP	2/1/2002
Sulfate	EPA 9056	General Chemistry	NELAP	7/1/2003
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Tetryl (methyl-2,4,6-trinitrophenylnitramine)	EPA 8330	Extractable Organics	NELAP	7/1/2003
Thallium	EPA 200.7	Metals	NELAP	2/1/2002
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Tin	EPA 200.7	Metals	NELAP	2/1/2002
Tin	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 200.7	Metals	NELAP	2/1/2002
Toluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Total cyanide	EPA 9010/9012	General Chemistry	NELAP	7/1/2003
Total hardness as CaCO3	SM 2340 B	Metals	NELAP	2/1/2002
Total Heptachlorodibenzofuran	EPA 1613	Extractable Organics	NELAP	2/1/2002
Total Heptachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Heptachlorodibenzo-p-dioxin	EPA 1613	Extractable Organics	NELAP	2/1/2002
Total Heptachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Hexachlorodibenzofuran	EPA 1613	Extractable Organics	NELAP	2/1/2002
Total Hexachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Hexachlorodibenzo-p-dioxin	EPA 1613	Extractable Organics	NELAP	2/1/2002
Total Hexachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total nitrate-nitrite	EPA 9056	General Chemistry	NELAP	7/1/2003
Total Pentachlorodibenzofuran	EPA 1613	Extractable Organics	NELAP	2/1/2002
Total Pentachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Pentachlorodibenzo-p-dioxin	EPA 1613	Extractable Organics	NELAP	2/1/2002
Total Pentachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Tetrachlorodibenzofuran	EPA 1613	Extractable Organics	NELAP	2/1/2002
Total Tetrachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Tetrachlorodibenzo-p-dioxin	EPA 1613	Extractable Organics	NELAP	2/1/2002
Total Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Vanadium	EPA 200.7	Metals	NELAP	2/1/2002
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Zinc	EPA 200.7	Metals	NELAP	2/1/2002

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Zinc	EPA 6010	Metals	NELAP	2/1/2002

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,4,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,4,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,6,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,7,8,9-Hxcdd	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,7,8,9-Hxcdf	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,7,8-Pecdd	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	2/1/2002
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	2/1/2002
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	2/1/2002
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	2/1/2002
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8330	Extractable Organics	NELAP	2/1/2002
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	2/1/2002
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,3-Dinitrobenzene (1,3-DNB)	EPA 8330	Extractable Organics	NELAP	2/1/2002
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	2/1/2002
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ 206)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ 206)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ 194)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ 194)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ 207)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ 195)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ 196)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ 197)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ 171)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4'-Hexachlorobiphenyl (BZ 128)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4'-Hexachlorobiphenyl (BZ 128)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ 208)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ 198)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ 199)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ 172)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ 200)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ 201)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ 173)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ 174)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ 175)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ 177)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5-Hexachlorobiphenyl (BZ 129)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5'-Hexachlorobiphenyl (BZ 130)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ 176)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,6-Hexachlorobiphenyl (BZ 131)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,6'-Hexachlorobiphenyl (BZ 132)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4-Pentachlorobiphenyl (BZ 82)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ 202)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ 178)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87177 **EPA Lab Code:** TN00009 **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',3,3',5,5'-Hexachlorobiphenyl (BZ 133)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ 179)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,6-Hexachlorobiphenyl (BZ 134)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,6'-Hexachlorobiphenyl (BZ 135)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5-Pentachlorobiphenyl (BZ 83)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',6,6'-Hexachlorobiphenyl (BZ 136)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',6-Pentachlorobiphenyl (BZ 84)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3'-Tetrachlorobiphenyl (BZ 40)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ 203)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ 204)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ 181)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ 182)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ 183)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ 183)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,4,4',5-Hexachlorobiphenyl (BZ 137)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ 184)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',6-Hexachlorobiphenyl (BZ 139)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',6'-Hexachlorobiphenyl (BZ 140)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4'-Pentachlorobiphenyl (BZ 85)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ 185)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ 187)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ 187)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,4,5,5'-Hexachlorobiphenyl (BZ 141)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,5'-Hexachlorobiphenyl (BZ 141)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,4',5,5'-Hexachlorobiphenyl (BZ 146)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ 186)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ 188)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,6-Hexachlorobiphenyl (BZ 142)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,6'-Hexachlorobiphenyl (BZ 143)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5',6-Hexachlorobiphenyl (BZ 144)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,6-Hexachlorobiphenyl (BZ 147)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,6'-Hexachlorobiphenyl (BZ 148)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',3,4',5',6-Hexachlorobiphenyl (BZ 149)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5-Pentachlorobiphenyl (BZ 86)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5'-Pentachlorobiphenyl (BZ 87)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5'-Pentachlorobiphenyl (BZ 87)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,4',5-Pentachlorobiphenyl (BZ 90)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5'-Pentachlorobiphenyl (BZ 97)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,6,6'-Hexachlorobiphenyl (BZ 145)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',6,6'-Hexachlorobiphenyl (BZ 150)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,6-Pentachlorobiphenyl (BZ 88)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,6'-Pentachlorobiphenyl (BZ 89)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',6-Pentachlorobiphenyl (BZ 91)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',6'-Pentachlorobiphenyl (BZ 98)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4-Tetrachlorobiphenyl (BZ 41)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4'-Tetrachlorobiphenyl (BZ 42)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,5',6-Hexachlorobiphenyl (BZ 151)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,5',6-Hexachlorobiphenyl (BZ 151)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,5,5'-Pentachlorobiphenyl (BZ 92)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,6,6'-Hexachlorobiphenyl (BZ 152)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,6-Pentachlorobiphenyl (BZ 93)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,6'-Pentachlorobiphenyl (BZ 94)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5',6-Pentachlorobiphenyl (BZ 95)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5-Tetrachlorobiphenyl (BZ 43)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5'-Tetrachlorobiphenyl (BZ 44)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5'-Tetrachlorobiphenyl (BZ 44)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',3,6,6'-Pentachlorobiphenyl (BZ 96)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,6-Tetrachlorobiphenyl (BZ 45)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,6'-Tetrachlorobiphenyl (BZ 46)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3-Trichlorobiphenyl (BZ 16)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',4,4',5,6'-Hexachlorobiphenyl (BZ 154)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',5-Pentachlorobiphenyl (BZ 99)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',6,6'-Hexachlorobiphenyl (BZ 155)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',6-Pentachlorobiphenyl (BZ 100)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4'-Tetrachlorobiphenyl (BZ 47)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5,5'-Pentachlorobiphenyl (BZ 101)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',4,5,5'-Pentachlorobiphenyl (BZ 101)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',4,5,6'-Pentachlorobiphenyl (BZ 102)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5',6-Pentachlorobiphenyl (BZ 103)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5-Tetrachlorobiphenyl (BZ 48)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5'-Tetrachlorobiphenyl (BZ 49)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5'-Tetrachlorobiphenyl (BZ 49)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',4,6,6'-Pentachlorobiphenyl (BZ 104)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,6-Tetrachlorobiphenyl (BZ 50)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,6'-Tetrachlorobiphenyl (BZ 51)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4-Trichlorobiphenyl (BZ 17)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5,5'-Tetrachlorobiphenyl (BZ 52)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5,5'-Tetrachlorobiphenyl (BZ 52)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',5,6'-Tetrachlorobiphenyl (BZ 53)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5-Trichlorobiphenyl (BZ 18)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5-Trichlorobiphenyl (BZ 18)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,2',6,6'-Tetrachlorobiphenyl (BZ 54)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',6-Trichlorobiphenyl (BZ 19)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2'-Dichlorobiphenyl (BZ 4)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	2/1/2002
2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ 205)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ 189)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ 190)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ 191)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5-Hexachlorobiphenyl (BZ 156)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5'-Hexachlorobiphenyl (BZ 157)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',6-Hexachlorobiphenyl (BZ 158)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4'-Pentachlorobiphenyl (BZ 105)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ 192)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ 193)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5,5'-Hexachlorobiphenyl (BZ 159)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5,5'-Hexachlorobiphenyl (BZ 162)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5,6-Hexachlorobiphenyl (BZ 160)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5',6-Hexachlorobiphenyl (BZ 161)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5,6-Hexachlorobiphenyl (BZ 163)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5',6-Hexachlorobiphenyl (BZ 164)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5-Pentachlorobiphenyl (BZ 106)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,3',4',5-Pentachlorobiphenyl (BZ 107)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5'-Pentachlorobiphenyl (BZ 108)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5'-Pentachlorobiphenyl (BZ 122)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,6-Pentachlorobiphenyl (BZ 109)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',6-Pentachlorobiphenyl (BZ 110)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',6-Pentachlorobiphenyl (BZ 110)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,3,3',4-Tetrachlorobiphenyl (BZ 55)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4'-Tetrachlorobiphenyl (BZ 56)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5,5',6-Hexachlorobiphenyl (BZ 165)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5,5'-Pentachlorobiphenyl (BZ 111)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5,6-Pentachlorobiphenyl (BZ 112)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5',6-Pentachlorobiphenyl (BZ 113)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5-Tetrachlorobiphenyl (BZ 57)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5'-Tetrachlorobiphenyl (BZ 58)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',6-Tetrachlorobiphenyl (BZ 59)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3'-Trichlorobiphenyl (BZ 20)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5,5'-Hexachlorobiphenyl (BZ 167)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4',5,6-Hexachlorobiphenyl (BZ 166)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5',6-Hexachlorobiphenyl (BZ 168)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4',5-Pentachlorobiphenyl (BZ 114)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5-Pentachlorobiphenyl (BZ 118)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5-Pentachlorobiphenyl (BZ 118)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,3',4,4',5'-Pentachlorobiphenyl (BZ 123)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4',6-Pentachlorobiphenyl (BZ 115)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',6-Pentachlorobiphenyl (BZ 119)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4'-Tetrachlorobiphenyl (BZ 60)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4'-Tetrachlorobiphenyl (BZ 66)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4'-Tetrachlorobiphenyl (BZ 66)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,3',4,5,5'-Pentachlorobiphenyl (BZ 120)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5,5'-Pentachlorobiphenyl (BZ 124)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,5,6-Pentachlorobiphenyl (BZ 116)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4',5,6-Pentachlorobiphenyl (BZ 117)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,5',6-Pentachlorobiphenyl (BZ 121)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5',6-Pentachlorobiphenyl (BZ 125)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,5-Tetrachlorobiphenyl (BZ 61)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4',5-Tetrachlorobiphenyl (BZ 63)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3',4,5-Tetrachlorobiphenyl (BZ 67)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,5'-Tetrachlorobiphenyl (BZ 68)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5-Tetrachlorobiphenyl (BZ 70)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5'-Tetrachlorobiphenyl (BZ 76)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	2/1/2002
2,3,4,6-Tetrachlorobiphenyl (BZ 62)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4',6-Tetrachlorobiphenyl (BZ 64)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,6-Tetrachlorobiphenyl (BZ 69)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',6-Tetrachlorobiphenyl (BZ 71)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	2/1/2002
2,3,4-Trichlorobiphenyl (BZ 21)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4'-Trichlorobiphenyl (BZ 22)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4-Trichlorobiphenyl (BZ 25)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4'-Trichlorobiphenyl (BZ 33)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5,5'-Tetrachlorobiphenyl (BZ 72)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,5,6-Tetrachlorobiphenyl (BZ 65)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5',6-Tetrachlorobiphenyl (BZ 73)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,5-Trichlorobiphenyl (BZ 23)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5-Trichlorobiphenyl (BZ 26)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5-Trichlorobiphenyl (BZ 26)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,3',5'-Trichlorobiphenyl (BZ 34)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,6-Trichlorobiphenyl (BZ 24)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',6-Trichlorobiphenyl (BZ 27)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,7,8-TCDF	EPA 8290	Extractable Organics	NELAP	2/1/2002
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	2/1/2002
2,3-Dichlorobiphenyl (BZ 5)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3-Dichlorobiphenyl (BZ 5)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,3'-Dichlorobiphenyl (BZ 6)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,4',5-Tetrachlorobiphenyl (BZ 74)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,4',6-Tetrachlorobiphenyl (BZ 75)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,4'-Trichlorobiphenyl (BZ 28)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,5-Trichlorobiphenyl (BZ 29)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4',5-Trichlorobiphenyl (BZ 31)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4',5-Trichlorobiphenyl (BZ 31)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
2,4,6-Trichlorobiphenyl (BZ 30)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,4',6-Trichlorobiphenyl (BZ 32)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
2,4,6-Trinitrotoluene (2,4,6-TNT)	EPA 8330	Extractable Organics	NELAP	2/1/2002
2,4-Dichlorobiphenyl (BZ 7)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4'-Dichlorobiphenyl (BZ 8)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	2/1/2002
2,4-Dinitrotoluene (2,4-DNT)	EPA 8330	Extractable Organics	NELAP	2/1/2002
2,5-Dichlorobiphenyl (BZ 9)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,6-Dichlorobiphenyl (BZ 10)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	2/1/2002
2,6-Dinitrotoluene (2,6-DNT)	EPA 8330	Extractable Organics	NELAP	2/1/2002
2-Amino-4,6-dinitrotoluene (2-am-dnt)	EPA 8330	Extractable Organics	NELAP	2/1/2002
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	2/1/2002
2-Chlorobiphenyl (BZ 1)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2-Chlorobiphenyl (BZ 1)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	2/1/2002
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	2/1/2002
2-Hexanone	EPA 8260	Volatile Organics	NELAP	2/1/2002
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	2/1/2002
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	2/1/2002
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	2/1/2002
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
2-Nitrotoluene	EPA 8330	Extractable Organics	NELAP	2/1/2002
3,3',4,4',5,5'-Hexachlorobiphenyl (BZ 169)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,4',5-Pentachlorobiphenyl (BZ 126)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,4'-Tetrachlorobiphenyl (BZ 77)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,5,5'-Pentachlorobiphenyl (BZ 127)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,5-Tetrachlorobiphenyl (BZ 78)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,5'-Tetrachlorobiphenyl (BZ 79)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4-Trichlorobiphenyl (BZ 35)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',5,5'-Tetrachlorobiphenyl (BZ 80)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

Laboratory Scope of Accreditation

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E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
3,3',5-Trichlorobiphenyl (BZ 36)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	2/1/2002
3,3'-Dichlorobiphenyl (BZ 11)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3'-Dichlorobiphenyl (BZ 11)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
3,4,4',5-Tetrachlorobiphenyl (BZ 81)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4,4'-Trichlorobiphenyl (BZ 37)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4,5-Trichlorobiphenyl (BZ 38)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4',5-Trichlorobiphenyl (BZ 39)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4-Dichlorobiphenyl (BZ 12)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4'-Dichlorobiphenyl (BZ 13)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,5-Dichlorobiphenyl (BZ 14)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3-Chlorobiphenyl (BZ 2)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	2/1/2002
3-Nitrotoluene	EPA 8330	Extractable Organics	NELAP	2/1/2002
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
4,4'-Dichlorobiphenyl (BZ 15)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
4-Amino-2,6-dinitrotoluene (4-am-dnt)	EPA 8330	Extractable Organics	NELAP	2/1/2002
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	2/1/2002
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	2/1/2002
4-Chlorobiphenyl (BZ 3)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	2/1/2002
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	2/1/2002
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	2/1/2002
4-Methylphenol (p-Cresol)	EPA 8270	Extractable Organics	NELAP	2/1/2002
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	2/1/2002
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
4-Nitrotoluene	EPA 8330	Extractable Organics	NELAP	2/1/2002
Acenaphthene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Acetone	EPA 8260	Volatile Organics	NELAP	2/1/2002
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002

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E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aluminum	EPA 6010	Metals	NELAP	2/1/2002
Amenable cyanide	EPA 9010/9012	General Chemistry	NELAP	2/1/2002
Aniline	EPA 8270	Extractable Organics	NELAP	2/1/2002
Anthracene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Antimony	EPA 6010	Metals	NELAP	2/1/2002
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Arsenic	EPA 6010	Metals	NELAP	2/1/2002
Barium	EPA 6010	Metals	NELAP	2/1/2002
Benzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Benzidine	EPA 8270	Extractable Organics	NELAP	2/1/2002
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Benzoic acid	EPA 8270	Extractable Organics	NELAP	2/1/2002
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	2/1/2002
Beryllium	EPA 6010	Metals	NELAP	2/1/2002
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	2/1/2002
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	2/1/2002
bis(2-Chloroisopropyl) ether	EPA 8270	Extractable Organics	NELAP	2/1/2002
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	2/1/2002
Boron	EPA 6010	Metals	NELAP	2/1/2002
Bromide	EPA 9056	General Chemistry	NELAP	2/1/2002
Bromobenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
Bromoform	EPA 8260	Volatile Organics	NELAP	2/1/2002
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	2/1/2002

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Cadmium	EPA 6010	Metals	NELAP	2/1/2002
Calcium	EPA 6010	Metals	NELAP	2/1/2002
Carbazole	EPA 8270	Extractable Organics	NELAP	2/1/2002
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	2/1/2002
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	2/1/2002
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Chloride	EPA 9056	General Chemistry	NELAP	2/1/2002
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Chloroethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
Chloroform	EPA 8260	Volatile Organics	NELAP	2/1/2002
Chromium	EPA 6010	Metals	NELAP	2/1/2002
Chrysene	EPA 8270	Extractable Organics	NELAP	2/1/2002
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	2/1/2002
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Cobalt	EPA 6010	Metals	NELAP	2/1/2002
Copper	EPA 6010	Metals	NELAP	2/1/2002
Decachlorobiphenyl (BZ 209)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
Decachlorobiphenyl (BZ 209)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Dibenz(a,h) anthracene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	2/1/2002
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
Dibromomethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	2/1/2002
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	2/1/2002
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	2/1/2002
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	2/1/2002
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Fluoranthene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Fluorene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Fluoride	EPA 9056	General Chemistry	NELAP	2/1/2002
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	2/1/2002
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Iron	EPA 6010	Metals	NELAP	2/1/2002
Isophorone	EPA 8270	Extractable Organics	NELAP	2/1/2002
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Lead	EPA 6010	Metals	NELAP	2/1/2002
Lithium	EPA 6010	Metals	NELAP	2/1/2002
Magnesium	EPA 6010	Metals	NELAP	2/1/2002
Manganese	EPA 6010	Metals	NELAP	2/1/2002
Mercury	EPA 7470	Metals	NELAP	2/1/2002
Mercury	EPA 7471	Metals	NELAP	2/1/2002
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	2/1/2002
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	2/1/2002
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	2/1/2002
Methylene chloride	EPA 8260	Volatile Organics	NELAP	2/1/2002
Molybdenum	EPA 6010	Metals	NELAP	2/1/2002
Naphthalene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Naphthalene	EPA 8270	Extractable Organics	NELAP	2/1/2002
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Nickel	EPA 6010	Metals	NELAP	2/1/2002
Nitrate	EPA 9056	General Chemistry	NELAP	2/1/2002
Nitrite	EPA 9056	General Chemistry	NELAP	2/1/2002
Nitrobenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	2/1/2002

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nitrobenzene	EPA 8330	Extractable Organics	NELAP	2/1/2002
Nitroglycerin	EPA 8332	Extractable Organics	NELAP	9/30/2002
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	2/1/2002
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	2/1/2002
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	2/1/2002
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	EPA 8330	Extractable Organics	NELAP	2/1/2002
Orthophosphate as P	EPA 9056	General Chemistry	NELAP	2/1/2002
PCBs, as congeners	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	9/30/2002
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
pH	EPA 9040	General Chemistry	NELAP	2/1/2002
pH	EPA 9045	General Chemistry	NELAP	2/1/2002
Phenanthrene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Phenol	EPA 8270	Extractable Organics	NELAP	2/1/2002
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Potassium	EPA 6010	Metals	NELAP	2/1/2002
Pyrene	EPA 8270	Extractable Organics	NELAP	2/1/2002
Pyridine	EPA 8260	Volatile Organics	NELAP	2/1/2002
Pyridine	EPA 8270	Extractable Organics	NELAP	2/1/2002
RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	EPA 8330	Extractable Organics	NELAP	2/1/2002
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Selenium	EPA 6010	Metals	NELAP	2/1/2002
Silicon	EPA 6010	Metals	NELAP	2/1/2002
Silver	EPA 6010	Metals	NELAP	2/1/2002
Sodium	EPA 6010	Metals	NELAP	2/1/2002
Strontium	EPA 6010	Metals	NELAP	2/1/2002
Styrene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Sulfate	EPA 9056	General Chemistry	NELAP	2/1/2002
Synthetic Precipitation Leaching Procedure	EPA 1312	General Chemistry	NELAP	2/1/2002
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	2/1/2002
Tetryl (methyl-2,4,6-trinitrophenylnitramine)	EPA 8330	Extractable Organics	NELAP	2/1/2002
Thallium	EPA 6010	Metals	NELAP	2/1/2002
Tin	EPA 6010	Metals	NELAP	2/1/2002
Toluene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Total cyanide	EPA 9010/9012	General Chemistry	NELAP	2/1/2002

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Total Heptachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	2/1/2002
Total Heptachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	2/1/2002
Total Hexachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	2/1/2002
Total Hexachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	2/1/2002
Total nitrate-nitrite	EPA 9056	General Chemistry	NELAP	2/1/2002
Total Pentachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	2/1/2002
Total Pentachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	2/1/2002
Total Tetrachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	2/1/2002
Total Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	2/1/2002
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	2/1/2002
Toxicity Characteristic Leaching Procedure	EPA 1311	General Chemistry	NELAP	2/1/2002
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	2/1/2002
trans-1,3-Dichloropropylene	EPA 8260	Volatile Organics	NELAP	2/1/2002
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	2/1/2002
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	2/1/2002
Vanadium	EPA 6010	Metals	NELAP	2/1/2002
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	2/1/2002
Xylene (total)	EPA 8260	Volatile Organics	NELAP	2/1/2002
Zinc	EPA 6010	Metals	NELAP	2/1/2002

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,4,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8,9-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdd	EPA 8290	Extractable Organics	NELAP	7/1/2003
1,2,3,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ 206)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ 206)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ 194)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ 207)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ 195)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ 196)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ 170)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ 197)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ 171)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,4'-Hexachlorobiphenyl (BZ 128)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ 208)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ 198)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ 199)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ 172)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ 200)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ 201)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ 173)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ 174)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ 175)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ 177)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,5-Hexachlorobiphenyl (BZ 129)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',3,3',4,5'-Hexachlorobiphenyl (BZ 130)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ 176)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,6-Hexachlorobiphenyl (BZ 131)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4,6'-Hexachlorobiphenyl (BZ 132)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',4-Pentachlorobiphenyl (BZ 82)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ 202)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ 178)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,5'-Hexachlorobiphenyl (BZ 133)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ 179)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,6-Hexachlorobiphenyl (BZ 134)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5,6'-Hexachlorobiphenyl (BZ 135)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',5-Pentachlorobiphenyl (BZ 83)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',6,6'-Hexachlorobiphenyl (BZ 136)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3',6-Pentachlorobiphenyl (BZ 84)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,3'-Tetrachlorobiphenyl (BZ 40)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ 203)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ 180)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ 204)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ 181)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ 182)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ 183)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ 183)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',5-Hexachlorobiphenyl (BZ 137)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',5'-Hexachlorobiphenyl (BZ 138)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ 184)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',6-Hexachlorobiphenyl (BZ 139)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4',6'-Hexachlorobiphenyl (BZ 140)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,4'-Pentachlorobiphenyl (BZ 85)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ 185)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ 187)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ 187)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4,5,5'-Hexachlorobiphenyl (BZ 141)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,5'-Hexachlorobiphenyl (BZ 141)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4',5,5'-Hexachlorobiphenyl (BZ 146)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ 186)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ 188)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,6-Hexachlorobiphenyl (BZ 142)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5,6'-Hexachlorobiphenyl (BZ 143)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5',6-Hexachlorobiphenyl (BZ 144)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,6-Hexachlorobiphenyl (BZ 147)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5,6'-Hexachlorobiphenyl (BZ 148)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5',6-Hexachlorobiphenyl (BZ 149)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5-Pentachlorobiphenyl (BZ 86)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5'-Pentachlorobiphenyl (BZ 87)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,5'-Pentachlorobiphenyl (BZ 87)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,4',5-Pentachlorobiphenyl (BZ 90)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',5'-Pentachlorobiphenyl (BZ 97)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,6,6'-Hexachlorobiphenyl (BZ 145)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',6,6'-Hexachlorobiphenyl (BZ 150)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,6-Pentachlorobiphenyl (BZ 88)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4,6'-Pentachlorobiphenyl (BZ 89)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',6-Pentachlorobiphenyl (BZ 91)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4',6'-Pentachlorobiphenyl (BZ 98)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4-Tetrachlorobiphenyl (BZ 41)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,4'-Tetrachlorobiphenyl (BZ 42)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,5',6-Hexachlorobiphenyl (BZ 151)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,5',6-Hexachlorobiphenyl (BZ 151)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,5,5'-Pentachlorobiphenyl (BZ 92)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,6,6'-Hexachlorobiphenyl (BZ 152)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,6-Pentachlorobiphenyl (BZ 93)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5,6'-Pentachlorobiphenyl (BZ 94)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5',6-Pentachlorobiphenyl (BZ 95)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5-Tetrachlorobiphenyl (BZ 43)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5'-Tetrachlorobiphenyl (BZ 44)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,5'-Tetrachlorobiphenyl (BZ 44)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',3,6,6'-Pentachlorobiphenyl (BZ 96)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,6-Tetrachlorobiphenyl (BZ 45)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3,6'-Tetrachlorobiphenyl (BZ 46)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',3-Trichlorobiphenyl (BZ 16)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,2',4,4',5,5'-Hexachlorobiphenyl (BZ 153)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,4',5,6'-Hexachlorobiphenyl (BZ 154)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',5-Pentachlorobiphenyl (BZ 99)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',6,6'-Hexachlorobiphenyl (BZ 155)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4',6-Pentachlorobiphenyl (BZ 100)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,4'-Tetrachlorobiphenyl (BZ 47)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5,5'-Pentachlorobiphenyl (BZ 101)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5,5'-Pentachlorobiphenyl (BZ 101)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',4,5,6'-Pentachlorobiphenyl (BZ 102)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5',6-Pentachlorobiphenyl (BZ 103)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5-Tetrachlorobiphenyl (BZ 48)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,5'-Tetrachlorobiphenyl (BZ 49)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,6,6'-Pentachlorobiphenyl (BZ 104)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,6-Tetrachlorobiphenyl (BZ 50)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4,6'-Tetrachlorobiphenyl (BZ 51)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',4-Trichlorobiphenyl (BZ 17)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5,5'-Tetrachlorobiphenyl (BZ 52)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5,5'-Tetrachlorobiphenyl (BZ 52)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',5,6'-Tetrachlorobiphenyl (BZ 53)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5-Trichlorobiphenyl (BZ 18)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',5-Trichlorobiphenyl (BZ 18)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,2',6,6'-Tetrachlorobiphenyl (BZ 54)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2',6-Trichlorobiphenyl (BZ 19)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,2'-Dichlorobiphenyl (BZ 4)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ 205)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ 189)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ 190)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ 191)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5-Hexachlorobiphenyl (BZ 156)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',5'-Hexachlorobiphenyl (BZ 157)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4',6-Hexachlorobiphenyl (BZ 158)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,4'-Pentachlorobiphenyl (BZ 105)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ 192)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ 193)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5,5'-Hexachlorobiphenyl (BZ 159)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5,5'-Hexachlorobiphenyl (BZ 162)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3,3',4,5,6-Hexachlorobiphenyl (BZ 160)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5',6-Hexachlorobiphenyl (BZ 161)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5,6-Hexachlorobiphenyl (BZ 163)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5',6-Hexachlorobiphenyl (BZ 164)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5-Pentachlorobiphenyl (BZ 106)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5-Pentachlorobiphenyl (BZ 107)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,5'-Pentachlorobiphenyl (BZ 108)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',5'-Pentachlorobiphenyl (BZ 122)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4,6-Pentachlorobiphenyl (BZ 109)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',6-Pentachlorobiphenyl (BZ 110)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4',6-Pentachlorobiphenyl (BZ 110)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3,3',4-Tetrachlorobiphenyl (BZ 55)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',4'-Tetrachlorobiphenyl (BZ 56)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5,5',6-Hexachlorobiphenyl (BZ 165)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5,5'-Pentachlorobiphenyl (BZ 111)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5,6-Pentachlorobiphenyl (BZ 112)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5',6-Pentachlorobiphenyl (BZ 113)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5-Tetrachlorobiphenyl (BZ 57)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',5'-Tetrachlorobiphenyl (BZ 58)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3',6-Tetrachlorobiphenyl (BZ 59)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,3'-Trichlorobiphenyl (BZ 20)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5,5'-Hexachlorobiphenyl (BZ 167)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4',5,6-Hexachlorobiphenyl (BZ 166)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5',6-Hexachlorobiphenyl (BZ 168)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4',5-Pentachlorobiphenyl (BZ 114)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5-Pentachlorobiphenyl (BZ 118)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',5'-Pentachlorobiphenyl (BZ 123)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4',6-Pentachlorobiphenyl (BZ 115)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4',6-Pentachlorobiphenyl (BZ 119)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,4'-Tetrachlorobiphenyl (BZ 60)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4'-Tetrachlorobiphenyl (BZ 66)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,4'-Tetrachlorobiphenyl (BZ 66)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3',4,5,5'-Pentachlorobiphenyl (BZ 120)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5,5'-Pentachlorobiphenyl (BZ 124)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,5,6-Pentachlorobiphenyl (BZ 116)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4',5,6-Pentachlorobiphenyl (BZ 117)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code: TN00009** **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3',4,5',6-Pentachlorobiphenyl (BZ 121)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5',6-Pentachlorobiphenyl (BZ 125)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,5-Tetrachlorobiphenyl (BZ 61)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4',5-Tetrachlorobiphenyl (BZ 63)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,5-Tetrachlorobiphenyl (BZ 67)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,5'-Tetrachlorobiphenyl (BZ 68)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5-Tetrachlorobiphenyl (BZ 70)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',5'-Tetrachlorobiphenyl (BZ 76)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,6,7,8-Hxcdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4,6-Tetrachlorobiphenyl (BZ 62)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4',6-Tetrachlorobiphenyl (BZ 64)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4,6-Tetrachlorobiphenyl (BZ 69)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4',6-Tetrachlorobiphenyl (BZ 71)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4,7,8-Pecdf	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,4-Trichlorobiphenyl (BZ 21)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,4'-Trichlorobiphenyl (BZ 22)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4-Trichlorobiphenyl (BZ 25)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',4'-Trichlorobiphenyl (BZ 33)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5,5'-Tetrachlorobiphenyl (BZ 72)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,5,6-Tetrachlorobiphenyl (BZ 65)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5',6-Tetrachlorobiphenyl (BZ 73)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,5-Trichlorobiphenyl (BZ 23)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5-Trichlorobiphenyl (BZ 26)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',5'-Trichlorobiphenyl (BZ 34)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,6-Trichlorobiphenyl (BZ 24)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3',6-Trichlorobiphenyl (BZ 27)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3,7,8-TCDF	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
2,3-Dichlorobiphenyl (BZ 5)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,3-Dichlorobiphenyl (BZ 5)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,3'-Dichlorobiphenyl (BZ 6)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,4',5-Tetrachlorobiphenyl (BZ 74)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,4',6-Tetrachlorobiphenyl (BZ 75)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,4'-Trichlorobiphenyl (BZ 28)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4,5-Trichlorobiphenyl (BZ 29)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4',5-Trichlorobiphenyl (BZ 31)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004

Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,4',5-Trichlorobiphenyl (BZ 31)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
2,4,6-Trichlorobiphenyl (BZ 30)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4',6-Trichlorobiphenyl (BZ 32)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4-Dichlorobiphenyl (BZ 7)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,4'-Dichlorobiphenyl (BZ 8)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,5-Dichlorobiphenyl (BZ 9)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2,6-Dichlorobiphenyl (BZ 10)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2-Chlorobiphenyl (BZ 1)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
2-Chlorobiphenyl (BZ 1)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
3,3',4,4',5,5'-Hexachlorobiphenyl (BZ 169)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,4',5-Pentachlorobiphenyl (BZ 126)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,4'-Tetrachlorobiphenyl (BZ 77)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,5,5'-Pentachlorobiphenyl (BZ 127)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,5-Tetrachlorobiphenyl (BZ 78)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4,5'-Tetrachlorobiphenyl (BZ 79)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',4-Trichlorobiphenyl (BZ 35)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',5,5'-Tetrachlorobiphenyl (BZ 80)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3',5-Trichlorobiphenyl (BZ 36)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,3'-Dichlorobiphenyl (BZ 11)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4,4',5-Tetrachlorobiphenyl (BZ 81)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4,4'-Trichlorobiphenyl (BZ 37)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4,5-Trichlorobiphenyl (BZ 38)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4',5-Trichlorobiphenyl (BZ 39)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4-Dichlorobiphenyl (BZ 12)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,4'-Dichlorobiphenyl (BZ 13)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3,5-Dichlorobiphenyl (BZ 14)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
3-Chlorobiphenyl (BZ 2)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
4,4'-Dichlorobiphenyl (BZ 15)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
4-Chlorobiphenyl (BZ 3)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
Decachlorobiphenyl (BZ 209)	EPA 1668	Pesticides-Herbicides-PCB's	NELAP	4/14/2004
Total Heptachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Heptachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Hexachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Hexachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Pentachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Pentachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003

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Laboratory Scope of Accreditation

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State Laboratory ID: E87177 **EPA Lab Code:** TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Biological Tissue

Analyte	Method/Tech	Category	Certification Type	Effective Date
Total Tetrachlorodibenzofuran	EPA 8290	Extractable Organics	NELAP	7/1/2003
Total Tetrachlorodibenzo-p-dioxin	EPA 8290	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

THIS LISTING OF ACCREDITED ANALYTES SHOULD BE USED ONLY WHEN ASSOCIATED WITH A VALID CERTIFICATE

State Laboratory ID: E87177 **EPA Lab Code:** TN00009 **(865) 291-3000**

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1-Trichloroethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,1,1-Trichloroethane	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,1,2,2-Tetrachloroethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,1,2,2-Tetrachloroethane	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,1,2-Trichloroethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,1-Dichloroethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,1-Dichloroethane	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,1-Dichloroethylene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,1-Dichloroethylene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-hpcdd)	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,4,7,8-Hxcdd	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,4,7,8-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,6,7,8-Hxcdd	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,6,7,8-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,7,8,9-Hxcdd	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,7,8,9-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,7,8-Pecdd	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,3,7,8-Pecdf	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
1,2,4-Trichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,2,4-Trichlorobenzene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,2,4-Trimethylbenzene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,2-Dichloro-1,1,2,2-tetrafluoroethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,2-Dichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,2-Dichlorobenzene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,2-Dichloroethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,2-Dichloroethane	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,2-Dichloropropane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,2-Dichloropropane	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,3,5-Trimethylbenzene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002

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E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,3-Butadiene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,3-Dichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,3-Dichlorobenzene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
1,4-Dichlorobenzene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
1,4-Dichlorobenzene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
2,3,4,6,7,8-Hxcdf	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
2,3,4,7,8-Pecdf	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
2,3,7,8-TCDF	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA TO-9A	Extractable Organics	NELAP	10/1/2002
2-Butanone (Methyl ethyl ketone, MEK)	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Acenaphthene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Acenaphthylene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Acetonitrile	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Acrolein (Propenal)	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Acrylonitrile	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Anthracene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Aroclor-1016 (PCB-1016)	EPA TO-4A	Pesticides and PCB's	NELAP	9/30/2002
Aroclor-1221 (PCB-1221)	EPA TO-4A	Pesticides and PCB's	NELAP	9/30/2002
Aroclor-1232 (PCB-1232)	EPA TO-4A	Pesticides and PCB's	NELAP	9/30/2002
Aroclor-1242 (PCB-1242)	EPA TO-4A	Pesticides and PCB's	NELAP	9/30/2002
Aroclor-1248 (PCB-1248)	EPA TO-4A	Pesticides and PCB's	NELAP	9/30/2002
Aroclor-1254 (PCB-1254)	EPA TO-4A	Pesticides and PCB's	NELAP	9/30/2002
Aroclor-1260 (PCB-1260)	EPA TO-4A	Pesticides and PCB's	NELAP	9/30/2002
Benzene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Benzene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Benzo(a)anthracene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Benzo(a)pyrene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Benzo(b)fluoranthene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Benzo(e)pyrene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Benzo(g,h,i)perylene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Benzo(k)fluoranthene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Benzyl chloride	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Benzyl chloride	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Bromoform	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Carbon disulfide	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Carbon tetrachloride	EPA TO-14A	Volatile Organics	NELAP	2/1/2002

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

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E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
Carbon tetrachloride	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Chlorobenzene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Chlorobenzene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Chloroethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Chloroethane	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Chloroform	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Chloroform	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Chloroprene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Chrysene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
cis & trans-1,2-Dichloroethene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
cis-1,2-Dichloroethylene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
cis-1,3-Dichloropropene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
cis-1,3-Dichloropropene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Dibenz(a,h) anthracene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Dichlorodifluoromethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Ethylbenzene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Ethylbenzene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Fluoranthene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Fluorene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Hexachlorobutadiene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Hexachlorobutadiene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Indeno(1,2,3-cd)pyrene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Methanol	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Methyl bromide (Bromomethane)	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Methyl chloride (Chloromethane)	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Methyl chloride (Chloromethane)	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Methyl isobutyl ketone (Hexone)	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Methyl tert-butyl ether (MTBE)	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Methylene chloride	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Methylene chloride	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Naphthalene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
n-Hexane	EPA TO-15	Volatile Organics	NELAP	9/30/2002
o-Xylene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Phenanthrene	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Pyrene.	EPA TO-13A	Extractable Organics	NELAP	4/14/2004
Styrene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002

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State Laboratory ID: E87177 EPA Lab Code: TN00009 (865) 291-3000

E87177
STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Matrix: Air and Emissions

Analyte	Method/Tech	Category	Certification Type	Effective Date
Styrene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Tetrachloroethylene (Perchloroethylene)	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Toluene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
trans-1,3-Dichloropropylene	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
trans-1,3-Dichloropropylene	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Trichloroethene (Trichloroethylene)	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Trichloroethene (Trichloroethylene)	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Trichlorofluoromethane	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Vinyl acetate	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Vinyl chloride	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Vinyl chloride	EPA TO-15	Volatile Organics	NELAP	9/30/2002
Xylene (total)	EPA TO-14A	Volatile Organics	NELAP	2/1/2002
Xylene (total)	EPA TO-15	Volatile Organics	NELAP	9/30/2002

"STATE" indicates certification for the analyte by the method specified. "NELAP" further indicates certification compliant with the NELAC Standards.

APPENDIX J
GRANULAR ACTIVATED CARBON WASTE PROFILE, ANALYTICAL RESULTS, AND MANIFEST
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

WASTE PROFILE

TRI

WASTE MANAGEMENT, INC.

GENERATOR'S WASTE PROFILE SHEET

Profile Number: WMI EF 1809

Profile History ☐ Renewal ☒ Initial

Renewal Date: 10/01/07 OK.

Service Agreement on File? ☒ YES ☐ NO

☒ Non-Hazardous ☐ Non-Special ☐ TSCA ☐ Hazardous

A. Waste Generation Information

1. Generator Name: Hawthorne Regulator Station MGP
2. SIC Code:
3. Facility Street Address: 1729 Kingsbury Street
4. Phone: ( )
5. Facility City: Chicago
6. State/Province: IL
7. Zip/Postal Code: 60614
8. Generator USEPA/Federal ID #:
9. County: Cook
10. State/Province ID #: 0316070022
11. Customer Name: Peoples Gas Light & Coke Company
12. Customer Phone: (312)240-4832
13. Customer Contact: Alison Millerick
14. Customer Fax: (312) 240-4725
15. Billing Address 130 East Randolph Drive, Chicago, IL 60601 ☐ Same as above

B. Waste Stream Information

1. **Description**

a. Name of Waste: Granular Activated Carbon (GAC)

b. Process Generating waste: The site was used as an MGP facility from 1895 through 1921. Peoples Gas dismantled the MGP site in 1938. The GAC drums were used to treat vapor emissions from a soil vapor extraction system.

c. Color	d. Strong odor (describe):	e. Physical state @ 70°F	f. Layers	g. Free liquid range
Black Pellets	None	☒ Solid ☐ Liquid ☐ Gas ☐ Sludge ☐ Other ☐ Powder /Dust	☒ Single Layer ☐ Multi-layer	0 to 0 %
				h. pH: Range 7.7 to 7.8

i. Liquid Flash Point: ☐ <73°F ☐ 73-99°F ☐ 100-139°F ☐ 140-199°F ☒ ≥ 200°F ☐ Not applicable

j. Physical and Chemical Composition (List all constituents [including organics, debris, UHC's, and any incidental or periodic materials] present in any concentration and submit representative sample or analysis)(where non-hazardous organic solvents are present, please explain source):

Constituents	Concentration Range	Constituents	Concentration Range
GAC	99.5-100%		
MGP constituents	<0.5%		

[illegible]

k. ☐ Oxidizer ☐ Pyrophoric ☐ Explosive ☐ Radioactive ☒ Carcinogen ☐ Infectious ☐ Shock Sensitive ☐ Water Reactive

l. Does the waste represented by this profile contain any of the carcinogens which require OSHA notification? (list in Section B.1.j) ☐ YES ☒ NO

m. Does the waste represented by this profile contain dioxins? (list in Section B.1.j) ☐ YES ☒ NO

n. Does the waste represented by this profile contain asbestos? ☐ YES ☒ NO

If yes ☐ friable ☐ non-friable

o. Does the waste represented by this profile contain benzene subject to the waste operations NESHAP ☐ YES ☒ NO

If yes, concentration _____ ppm

p. Is the waste subject to RCRA Subpart CC controls?.(for hazardous waste only) ☐ YES ☒ NO

If yes, volatile organic concentration _____ ppmw

q. Does the waste contain any Class I or Class II ozone-depleting substances? ☐ YES ☒ NO

r. Does the waste contain debris? (list in Section B.1.j) ☐ YES ☒ NO

s. Are all containers included in this waste stream empty and as defined in 40 CFR 261.7 and/or 761.79 (If yes, please include MSDS for former contents) ☐ YES ☐ NO ☒ NA

2. **Quantity of Waste**

Estimate Annual Volume 8 ☐ Tons ☐ Yards ☒ Drums ☐ Other (specify) _____

3. **Shipping Information**

a. Packaging: ☐ Bulk Solid ☐ Bulk Liquid ☒ Drum ☐ Other _____ Type/Size: 55-Gallon

b. Shipping Frequency: Units _____ Per: ☐ Month ☐ Quarter ☐ Year ☒ One time ☐ Other _____

c. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If no, skip d, e, and f) ☐ YES ☒ NO

d. Reportable Quantity (lbs.,kgs.): _____ e. Hazard Class/ID #: _____

f. USDOT Shipping Name: _____

g. Personal Protective Equipment Requirements: latex gloves

h. Transporter/Transfer Station: _____

Profile Number: WMI EF 1809

B. Generator's Certification

1. Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no, skip to 2 ☐YES ☒NO
   a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D, F, K, P, U) _____
   b. If a characteristic hazardous waste, do underlying hazardous constituents (UHCs) apply? ☐YES ☐NO
   (If yes, list in Section B.1.j)
2. Does the waste represented by this waste profile sheet contain any of the following pesticides or herbicides: Endrin, Lindane, Methoxychlor, Toxaphene, 2,4,D, 2,4,5-TP (silvex), chlordane, Heptachlor (and its epoxide)? ☐YES ☒NO
3. Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up? ☐YES ☒NO
   If yes, attach Record of Decision (ROD), 104/106 or 122 order or court order that governs site clean-up activity. For state mandated clean-up, provide relevant documentation.
4. Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission? ☐YES ☒NO
5. Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? (≥50 ppm or derived from a source ≥ 50 ppm) ☐YES ☒NO
   a. If present, is the concentration based on a dry weight analysis? ☐YES ☐NO
   b. If yes, were the PCBs imported into the U.S.? ☐YES ☐NO
6. Is the waste represented by this waste profile sheet a de-listed or de-characterized hazardous waste, subject to LDR requirements under IL TI 35 728.107? ☐YES ☒NO
7. Is the waste represented by this waste profile sheet Subject to the Illinois Solid Waste Management Act for? ☐YES ☒NO
   If no, explain. A pollution control waste
8. Does the waste profile sheet and all attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor? ☒YES ☐NO
9. Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor? ☒YES ☐NO
10. By checking "yes", I certify my waste is not an Illinois Special Waste, and that I understand that a person who knowingly and falsely certifies that a waste is not special waste is subject to the penalties set forth in subdivision (6) of subsection (h) of section 44 of the Illinois Pollution Control Act. ☐YES ☐NO
11. How has the generator determined the waste is not a RCRA hazardous waste? ☒Analysis ☐ MSDS ☐ Other (explain)

☐Check here if a Certificate of Destruction or Disposal is required.

Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. I authorize WMI to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, contractor, or consultant, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary. If approved for management, Contractor has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Certification Signature: Alison Millerick Title: Environmental Engineer

Name (Type or Print): Alison Millerick Company Name: Peoples Gas Date: 11/8/04

☒Check if additional information is attached. Indicate the number of attached pages 9

D. WMI Management - Division FOR WMI USE ONLY

1. Management Method ☒Landfill ☐Non-hazardous Solidification ☐Bioremediation ☐Incineration ☐Hazardous Stabilization ☐Other (Specify) 26 Disposal
2. Proposed Ultimate Management Facility: CID #4
3. Precautions, Special Handling Procedures, or Limitation on Approval:

Drums must be >90% full for CID Area 4.
~~Not an ESTW per generator's certification~~
~~No manifest or ESTW required.~~
Approved as special waste. ok 11/8/04

4. Waste Form 5. Source 6. System Type

Special Waste decision ☒Approved ☐Disapproved

Salesperson's Signature: Date:

Division Approval Signature: Date:

Special Waste Approvals Person Signature: Joseph Kash Date: 11-8-04

ANALYTICAL RESULTS

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

October 22, 2004

Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas- Hawthorne Regulator Station STAT Project No: 0410287

Dear Joan Gonzalez:

STAT Analysis received 1 sample for the referenced project on 10/13/2004. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Chris Forst
Assistant Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: October 22, 2004

Client: Burns & McDonnell
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Lab Order: 0410287

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0410287-001A	HAS-WC-GAC-101304		10/13/2004 9:15:00 AM	10/13/2004
0410287-001B	HAS-WC-GAC-101304		10/13/2004 9:15:00 AM	10/13/2004

STAT Analysis Corporation **Date:** *October 22, 2004*

CLIENT:	Burns & McDonnell	
Project:	29168, Peoples Gas- Hawthorne Regulator Stati	**CASE NARRATIVE**
Lab Order:	0410287	

The following three parameters apply to sample number HAS-WC-GAC-101304 (0410287-001):

Reactivity with Water: None
Odor: None
Physical Description: Black Pellets

Due to matrix interference, sample HAS-WC-GAC-101304 (0410287-001) had low VOC surrogates recoveries for:
1,2-Dichloroethane-d4: 71% recovery, QC limits 84-129%
Toluene-d8: 73% recovery, QC limits 85-110%
4-Bromofluorobenzenze: 53% recovery, QC limits 63-110%

Due to matrix interference, sample HAS-WC-GAC-101304 (0410287-001) had low SVOC surrogate recoveries for all surrogates:
Phenol-d5: 0% recovery, QC Limits 24-113%
Nitrobenzene-d5: 7.9% recovery, QC Limits 23-120%
4-Terphenyl-d14: 0.1% recovery, QC Limits 18-137%
2-Fluorophenol: 0% recovery, QC Limits 25-121%
2-Fluorobiphenyl: 2.8% recovery, QC Limits 30-115%
2-Chlorophenol-d4: 0% recovery, QC Limits 20-130%
2,4,6-Tribromophenol: 0% recovery, QC Limits 19-122%
1,2-Dichlorobenzene-d4: 13.9% recovery, QC Limits 20-130%

The sample was re-extracted as a waste dilution and re-analyzed (Prep batch 11456). The re-extraction had improved surrogate recovery, with the following surrogates out of control:
2,4,6-Tribromophenol: 6% recovery, QC Limits 19-122%
4-Terphenyl-d14: 15% recovery, QC Limits 18-137%
The waste dilution data was not reported.

Due to matrix interference, sample HAS-WC-GAC-101304 (0410287-001) had the following PNA soil surrogates out of control:
2-Fluorobiphenyl: 14% recovery, QC Limits 30-115%
4-Terphenyl-d14: 4% recovery, QC Limits 18-137%

Due to matrix interference, sample HAS-WC-GAC-101304 (0410287-001) had low PCB soil surrogate recovery for Tetrachloro-m-xylene (2% recovery, QC Limits 30-150%).

CASE NARRATIVE

Due to matrix interference, sample HAS-WC-GAC-101304 (0410287-001) had low MS/MSD recoveries for Phenolics (6% recovery, QC Limits 75-125%). The sample was redistilled with a smaller sample aliquot. The redistillation had similar low MS/MSD recoveries (17% recovery). The redistillation results were reported.

Due to matrix interference, sample HAS-WC-GAC-101304 (0410287-001) had low MS/MSD recoveries for Reactive Sulfide (7%/1% recovery, QC Limits 40-120%).

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Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Date Reported: October 22, 2004
Date Printed: October 22, 2004

Client: Burns & McDonnell
Lab Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Lab ID: 0410287-001

Client Sample ID: HAS-WC-GAC-101304
Collection Date: 10/13/2004 9:15:00 AM
Matrix: Solid

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs		**SW8082 (SW3550B)**		Prep Date: **10/13/2004**		Analyst: **ERP**
Aroclor 1016	ND	0.079		mg/Kg	1	10/14/2004
Aroclor 1221	ND	0.079		mg/Kg	1	10/14/2004
Aroclor 1232	ND	0.079		mg/Kg	1	10/14/2004
Aroclor 1242	ND	0.079		mg/Kg	1	10/14/2004
Aroclor 1248	ND	0.079		mg/Kg	1	10/14/2004
Aroclor 1254	ND	0.079		mg/Kg	1	10/14/2004
Aroclor 1260	ND	0.079		mg/Kg	1	10/14/2004
TCLP Pesticides		**SW8081 (SW3510C)**		Prep Date: **10/15/2004**		Analyst: **ERP**
Chlordane	ND	0.0001		mg/L	1	10/16/2004
Endrin	ND	0.0002		mg/L	1	10/16/2004
gamma-BHC	ND	0.001		mg/L	1	10/16/2004
Heptachlor	ND	0.0001		mg/L	1	10/16/2004
Heptachlor epoxide	ND	0.0001		mg/L	1	10/16/2004
Methoxychlor	ND	0.001		mg/L	1	10/16/2004
Toxaphene	ND	0.002		mg/L	1	10/16/2004
TCLP Herbicides		**SW1311/8321 (SW3510C)**		Prep Date: **10/19/2004**		Analyst: **JF**
2,4,5-TP (Silvex)	ND	0.008	*	mg/L	1	10/20/2004
2,4-D	ND	0.017	*	mg/L	1	10/20/2004
TCLP Mercury		**SW1311/7470A**		Prep Date: **10/18/2004**		Analyst: **JG**
Mercury	ND	0.00025		mg/L	1	10/18/2004
TCLP Metals by ICP/MS		**SW1311/6020 (SW3005A)**		Prep Date: **10/14/2004**		Analyst: **BJA**
Arsenic	0.046	0.01		mg/L	5	10/18/2004
Barium	0.17	0.02		mg/L	5	10/18/2004
Cadmium	ND	0.005		mg/L	5	10/18/2004
Chromium	0.027	0.01		mg/L	5	10/18/2004
Copper	ND	0.05		mg/L	5	10/18/2004
Lead	ND	0.005		mg/L	5	10/18/2004
Nickel	ND	0.02		mg/L	5	10/18/2004
Selenium	ND	0.01		mg/L	5	10/18/2004
Silver	ND	0.01		mg/L	5	10/18/2004
Zinc	0.065	0.05		mg/L	5	10/18/2004
F-Listed Semivolatile Compounds		**SW8270C (SW3550B)**		Prep Date: **10/13/2004**		Analyst: **PAB**
2-Ethoxyethanol	ND	0.33	*	mg/Kg	1	10/18/2004
2-Methylphenol	ND	0.33		mg/Kg	1	10/18/2004
3- & 4-Methylphenol	ND	0.33		mg/Kg	1	10/18/2004
Cyclohexanone	ND	0.33	*	mg/Kg	1	10/18/2004

Qualifiers:
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Date Reported: October 22, 2004
Date Printed: October 22, 2004

Client: Burns & McDonnell
Lab Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Lab ID: 0410287-001

Client Sample ID: HAS-WC-GAC-101304
Collection Date: 10/13/2004 9:15:00 AM
Matrix: Solid

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
F-Listed Semivolatile Compounds	**SW8270C (SW3550B)**			Prep Date: **10/13/2004**		Analyst: **PAB**
Nitrobenzene	ND	0.33		mg/Kg	1	10/18/2004
Pyridine	ND	0.33		mg/Kg	1	10/18/2004
Polynuclear Aromatic Hydrocarbons in Soil	**SW8270C-SIM (SW3580A)**			Prep Date: **10/19/2004**		Analyst: **VS**
Naphthalene	ND	0.073		mg/Kg	1	10/20/2004
Acenaphthylene	ND	0.073		mg/Kg	1	10/20/2004
Acenaphthene	ND	0.073		mg/Kg	1	10/20/2004
Fluorene	ND	0.073		mg/Kg	1	10/20/2004
Phenanthrene	ND	0.073		mg/Kg	1	10/20/2004
Anthracene	ND	0.073		mg/Kg	1	10/20/2004
Fluoranthene	ND	0.073		mg/Kg	1	10/20/2004
Pyrene	ND	0.073		mg/Kg	1	10/20/2004
Benz(a)anthracene	ND	0.073		mg/Kg	1	10/20/2004
Chrysene	ND	0.073		mg/Kg	1	10/20/2004
Benzo(b)fluoranthene	ND	0.073		mg/Kg	1	10/20/2004
Benzo(k)fluoranthene	ND	0.073		mg/Kg	1	10/20/2004
Benzo(a)pyrene	ND	0.073		mg/Kg	1	10/20/2004
Indeno(1,2,3-cd)pyrene	ND	0.073		mg/Kg	1	10/20/2004
Dibenz(a,h)anthracene	ND	0.073		mg/Kg	1	10/20/2004
Benzo(g,h,i)perylene	ND	0.073		mg/Kg	1	10/20/2004
TCLP Semivolatile Organic Compounds	**SW1311/8270C (SW3520C)**			Prep Date: **10/14/2004**		Analyst: **PAB**
1,4-Dichlorobenzene	ND	0.02		mg/L	1	10/19/2004
2,4,5-Trichlorophenol	ND	0.02		mg/L	1	10/19/2004
2,4,6-Trichlorophenol	ND	0.02		mg/L	1	10/19/2004
2,4-Dinitrotoluene	ND	0.02		mg/L	1	10/19/2004
2-methylphenol	ND	0.02		mg/L	1	10/19/2004
3- & 4-Methylphenol	ND	0.02		mg/L	1	10/19/2004
Hexachlorobenzene	ND	0.02		mg/L	1	10/19/2004
Hexachlorobutadiene	ND	0.02		mg/L	1	10/19/2004
Hexachloroethane	ND	0.02		mg/L	1	10/19/2004
Nitrobenzene	ND	0.02		mg/L	1	10/19/2004
Pentachlorophenol	ND	0.05		mg/L	1	10/19/2004
Pyridine	ND	0.05		mg/L	1	10/19/2004
BTEX by GC/MS	**SW8260B**			Prep Date: **10/14/2004**		Analyst: **MP**
Benzene	ND	0.014		mg/Kg	1	10/17/2004
Toluene	ND	0.014		mg/Kg	1	10/17/2004
Ethylbenzene	ND	0.014		mg/Kg	1	10/17/2004
Xylenes, Total	ND	0.028		mg/Kg	1	10/17/2004

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Date Reported: October 22, 2004
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Client: Burns & McDonnell
Lab Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Lab ID: 0410287-001

Client Sample ID: HAS-WC-GAC-101304
Collection Date: 10/13/2004 9:15:00 AM
Matrix: Solid

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
F-Listed Volatile Compounds	**SW8260B**			Prep Date: **10/14/2004**		Analyst: **MP**
1,1,1-Trichloroethane	18	0.4		mg/Kg	50	10/17/2004
1,1,2-Trichloroethane	ND	0.014		mg/Kg	1	10/17/2004
1,2-Dichlorobenzene	ND	0.014		mg/Kg	1	10/17/2004
1-Butanol	ND	0.57		mg/Kg	1	10/17/2004
2-Butanone	ND	0.014		mg/Kg	1	10/17/2004
2-Nitropropane	ND	0.14		mg/Kg	1	10/17/2004
4-Methyl-2-pentanone	ND	0.014		mg/Kg	1	10/17/2004
Acetone	ND	0.014		mg/Kg	1	10/17/2004
Benzene	ND	0.014		mg/Kg	1	10/17/2004
Carbon disulfide	ND	0.014		mg/Kg	1	10/17/2004
Carbon tetrachloride	ND	0.014		mg/Kg	1	10/17/2004
Chlorobenzene	ND	0.014		mg/Kg	1	10/17/2004
Ethyl acetate	ND	0.14		mg/Kg	1	10/17/2004
Ethyl Ether	ND	0.014		mg/Kg	1	10/17/2004
Ethylbenzene	ND	0.014		mg/Kg	1	10/17/2004
Freon-113	ND	0.014		mg/Kg	1	10/17/2004
Isobutyl Alcohol	ND	0.57		mg/Kg	1	10/17/2004
Methanol	ND	1.4	*	mg/Kg	1	10/18/2004
Methylene chloride	ND	0.014		mg/Kg	1	10/17/2004
Tetrachloroethene	ND	0.014		mg/Kg	1	10/17/2004
Toluene	ND	0.014		mg/Kg	1	10/17/2004
Trichloroethene	2	0.4		mg/Kg	50	10/17/2004
Trichlorofluoromethane	ND	0.014		mg/Kg	1	10/17/2004
Xylenes, Total	ND	0.8		mg/Kg	50	10/17/2004
Xylenes, Total	ND	0.028		mg/Kg	1	10/17/2004
TCLP Volatile Organic Compounds by GC/MS	**SW1311/8260B (SW5030B)**			Prep Date: **10/13/2004**		Analyst: **PS**
Benzene	ND	0.05		mg/L	10	10/15/2004
2-Butanone	ND	0.05		mg/L	10	10/15/2004
Carbon tetrachloride	ND	0.05		mg/L	10	10/15/2004
Chlorobenzene	ND	0.05		mg/L	10	10/15/2004
Chloroform	ND	0.05		mg/L	10	10/15/2004
1,2-Dichloroethane	ND	0.05		mg/L	10	10/15/2004
1,1-Dichloroethene	ND	0.05		mg/L	10	10/15/2004
Tetrachloroethene	ND	0.05		mg/L	10	10/15/2004
Trichloroethene	ND	0.05		mg/L	10	10/15/2004
Vinyl chloride	ND	0.05		mg/L	10	10/15/2004
Ash Content	**E160.4**			Prep Date: **10/13/2004**		Analyst: **JC**

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Lab ID: 0410287-001

Client Sample ID: HAS-WC-GAC-101304
Collection Date: 10/13/2004 9:15:00 AM
Matrix: Solid

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Ash Content	**E160.4**			Prep Date: **10/13/2004**		Analyst: **JC**
Ash Content	47.06	0.01	*	wt%	1	10/14/2004
Cyanide on ASTM Extract	**D3987-85/SW9012A**			Prep Date: **10/14/2004**		Analyst: **YZ**
Cyanide	ND	0.005	*	mg/L	1	10/15/2004
Chemical Oxygen Demand on ASTM Extract	**D3987-85/E410.4**			Prep Date: **10/14/2004**		Analyst: **YZ**
Chemical Oxygen Demand	30	20	*	mg/L	1	10/15/2004
Ammonia as Nitrogen on ASTM Extract	**D3987-85/E350.1**			Prep Date: **10/15/2004**		Analyst: **YZ**
Nitrogen, Ammonia (As N)	0.27	0.05	*	mg/L	1	10/18/2004
Oil and Grease on ASTM Extract	**D3987-85/E1664**			Prep Date: **10/15/2004**		Analyst: **RW**
Oil and Grease	ND	5	*	mg/L	1	10/18/2004
Oxidizing Agents Screen on ASTM Extract	**D4981-89**			Prep Date: **10/14/2004**		Analyst: **RW**
Oxidizing Agents	NEG		*	POS/NEG	1	10/14/2004
PH on ASTM Extract	**D3987-85/E150.1**			Prep Date: **10/14/2004**		Analyst: **RW**
pH	7.7		*	pH Units	1	10/14/2004
Cyanide, Reactive	**SW7.3.3.2**			Prep Date: **10/15/2004**		Analyst: **YZ**
Reactive Cyanide	ND	1		mg/Kg	1	10/15/2004
Cyanide, Total	**SW9012A**			Prep Date: **10/14/2004**		Analyst: **YZ**
Cyanide	ND	0.25		mg/Kg	1	10/15/2004
Flash Point (Open-Cup)	**SW1010**			Prep Date: **10/14/2004**		Analyst: **RW**
Flashpoint	No Flash up to 212			°F	1	10/14/2004
Paint Filter	**SW9095A**			Prep Date: **10/13/2004**		Analyst: **RW**
Paint Filter	Pass			Pass/Fail	1	10/13/2004
pH (1:10, 25 °C)	**SW9045C**			Prep Date: **10/13/2004**		Analyst: **RW**
pH	7.8			pH Units	1	10/13/2004
Phenolics	**SW9066 (SW9065)**			Prep Date: **10/14/2004**		Analyst: **YZ**
Phenolics, Total Recoverable	ND	2.5		mg/Kg	1	10/17/2004
Solids, Total	**D2974**			Prep Date: **10/13/2004**		Analyst: **JC**
Total Solid	69.05	0.01	*	wt%	1	10/14/2004
Sulfide, Reactive	**SW7.3.4.2**			Prep Date: **10/19/2004**		Analyst: **YZ**
Reactive Sulfide	ND	10		mg/Kg	1	10/19/2004

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Burns & McDonnell
SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: (312) 733-0551

Document Control No: HAS-034-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: Code R	BTEX	PAHs	TCLP Herbicides/Pesticides (D012-D017, D020, D021)	Reactive Cyanide + Sulfide	PCBs (1 ppm)	LN Panel	F-Code Solvent Scan	Remarks
HAS-WC-GAC-101304			-	-	-	-	10/13/04	0915		X		2	X	X	X	X	X	X	X	X	001

10/13/04

Sampler (signature): D S[illegible]
Sampler (signature):
Custody Seal Number: 101304 STAT-001, 101304 STAT-002
Special Instructions: 5 DAY TAT!

Relinquished By (signature): 1. D S[illegible] Date/Time: 10/13/04 1200
Received By (signature): [illegible] Date/Time: 10/13/04 1420
Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt: 6

Relinquished By (signature): 2. Date/Time
Received By (signature): Date/Time
Laboratory Comments: 0410287

061301 Form WCD-KC1-CHI

STAT Analysis Corporation

Sample Receipt Checklist

Client Name B&M

Work Order Numbe 0410287

Date and Time Received: 10/13/2004

Received by JC

Checklist completed b [signature] 10/13/04 (Signature / Date)

Reviewed by [initials] 10/13/04 (Initials / Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 6 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☐	No ☐	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

STAT Analysis Corporation

Date: 22-Oct-04

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Test No: SW8260B **Matrix:** S

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	BR4FBZ	BZMED8	DBFM	DCA12D4				
VBLK101704-2	109	98.1	105	106				
VLCS101704-2	107	99.8	104	96.5				
VLCSD101704-2	108	109	100	110				
0410287-001B:50	107	103	106	101				
0410287-001B	53.2 *	72.5 *	104	71.1 *				
0410287-001A	53.2 *	72.5 *	104	71.1 *				

Acronym		Surrogate	QC Limits
BR4FBZ	=	4-Bromofluorobenzene	63-110
BZMED8	=	Toluene-d8	85-110
DBFM	=	Dibromofluoromethane	83-119
DCA12D4	=	1,2-Dichloroethane-d4	84-129

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

Date: 22-Oct-04

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Test No: SW1311/8260B **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	BR4FBZ	BZMED8	DBFM	DCA12D4				
VBLK101504-2	105	101	100	101				
VLCS101504-2	97.8	101	106	108				
0410287-001B:10	104	103	104	107				
0410287-001BMS	100	104	107	105				
0410287-001BMSD	102	102	105	107				

Acronym		Surrogate	QC Limits
BR4FBZ	=	4-Bromofluorobenzene	86-115
BZMED8	=	Toluene-d8	88-110
DBFM	=	Dibromofluoromethane	86-118
DCA12D4	=	1,2-Dichloroethane-d4	80-120

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

Date: 22-Oct-04

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Test No: SW8270C-SIM **Matrix:** S

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	DCBZ12D4	NO2BZD5	PHEN2F	PHEND14				
MB-11453-PNA	110	112	114	124				
LCS-11453-PNA	108	116	114	124				
LCSD-11453-PNA	110	118	112	122				
0410287-001B	38.0	24.0	14.0 *	4.00 *				

Acronym		Surrogate	QC Limits
DCBZ12D4	=	1,2-Dichlorobenzene-d4	20-130
NO2BZD5	=	Nitrobenzene-d5	23-120
PHEN2F	=	2-Fluorobiphenyl	30-115
PHEND14	=	4-Terphenyl-d14	18-137

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/19/04 11:48:24 A**
Prep End Date:

Prep Batch **11453** Prep Code: **3580_PNA** Technician: **CDC**

Prep Factor Units: **mL / Kg**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001B	Solid		0.00137	0	0	10	7299.270	10/19/04	10/19/04
LCS-11453-PNA			0.001	0	0	10	10000.000	10/19/04	10/19/04
LCSD-11453-PNA			0.001	0	0	10	10000.000	10/19/04	10/19/04
MB-11453-PNA			0.001	0	0	10	10000.000	10/19/04	10/19/04

STAT Analysis Corporation Date: 22-Oct-04

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Test No: SW8270C **Matrix:** S

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
MB-11363-SVOC	81.3	82.8	80.4	86.7	78.6	86.8	83.0	87.7
LCS-11363-SVOC	70.8	69.5	69.8	80.9	68.1	76.6	74.6	85.2
LCSD-11363-SVOC	73.3	71.7	73.5	80.8	69.2	78.9	76.7	87.9
0410287-001B	0 *	13.9 *	7.90 *	0 *	0 *	0 *	2.84 *	0.120 *

Acronym		Surrogate	QC Limits
CLPH2D4	=	2-Chlorophenol-d4	20-130
DCBZ12D4	=	1,2-Dichlorobenzene-d4	20-130
NO2BZD5	=	Nitrobenzene-d5	23-120
PH246BR	=	2,4,6-Tribromophenol	19-122
PH2F	=	2-Fluorophenol	25-121
PHD5	=	Phenol-d5	24-113
PHEN2F	=	2-Fluorobiphenyl	30-115
PHEND14	=	4-Terphenyl-d14	18-137

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/13/04 1:50:50 P**
Prep End Date: **10/14/04 1:36:30 P**

Prep Batch **11363** Prep Code: **3550_SVOC** Technician: **CDC**

Prep Factor Units: **mL / Kg**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410257-001B	Soil		0.03096	0	0	1	32.300	10/13/04	10/13/04
0410287-001B	Solid		0.03017	0	0	1	33.146	10/13/04	10/14/04
LCS-11363-SVOC			0.03	0	0	1	33.333	10/13/04	10/13/04
LCSD-11363-SVOC			0.03	0	0	1	33.333	10/13/04	10/13/04
MB-11363-SVOC			0.03	0	0	1	33.333	10/13/04	10/13/04

STAT Analysis Corporation

Date: 22-Oct-04

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Test No: SW1311/8270C **Matrix:** W

Sample ID	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
MB-11395-SVOC	99.9	103	98.9	96.5	98.6	103	96.8	92.2
LCS-11395-SVOC	91.1	92.3	90.5	89.9	88.4	94.3	91.8	82.1
LCSD-11395-SVOC	89.4	92.3	89.4	84.0	87.6	92.0	86.7	77.7
MB-11395-TCLP	92.4	90.3	90.3	87.6	88.1	96.5	90.2	81.5
0410287-001B	89.8	91.3	87.8	88.6	87.9	93.8	87.0	80.2

Acronym		Surrogate	QC Limits
CLPH2D4	=	2-Chlorophenol-d4	33-110
DCBZ12D4	=	1,2-Dichlorobenzene-d4	16-110
NO2BZD5	=	Nitrobenzene-d5	35-114
PH246BR	=	2,4,6-Tribromophenol	10-123
PH2F	=	2-Fluorophenol	21-110
PHD5	=	Phenol-d5	10-110
PHEN2F	=	2-Fluorobiphenyl	43-116
PHEND14	=	4-Terphenyl-d14	33-141

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/14/04 8:53:56 P**
Prep End Date: **10/19/04 1:33:40 P**

Prep Factor Units: **mL / L**

Prep Batch **11395** Prep Code: **3520_SVOC** Technician: **VA**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001B	Solid		0.5	0	0	1	2.000	10/14/04	10/19/04
LCS-11395-SVOC			1	0	0	1	1.000	10/14/04	10/19/04
LCSD-11395-SVOC			1	0	0	1	1.000	10/14/04	10/19/04
MB-11395-SVOC			1	0	0	1	1.000	10/14/04	10/19/04
MB-11395-TCLP			0.5	0	0	1	2.000	10/14/04	10/19/04

STAT Analysis Corporation Date: 22-Oct-04

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Test No: SW8082 **Matrix:** S

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
MB-11369-PCB	93.9	89.9						
LCS-11369-PCB	86.9	82.8						
LCSD-11369-PCB	90.9	87.9						
0410287-001B	83.8	2.02 *						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/13/04 5:43:07 P**
Prep End Date: **10/14/04 1:36:08 P**

Prep Batch **11369** Prep Code: **3550_PCB** Technician: **CDC**

Prep Factor Units: **mL / Kg**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410213-003B	Soil		0.03043	0	0	10	328.623	10/13/04	10/14/04
0410228-001A	Soil		0.03037	0	0	10	329.272	10/13/04	10/14/04
0410228-002A	Soil		0.03042	0	0	10	328.731	10/13/04	10/14/04
0410228-003A	Soil		0.03075	0	0	10	325.203	10/13/04	10/14/04
0410228-004A	Soil		0.0301	0	0	10	332.226	10/13/04	10/14/04
0410266-001A	Soil		0.03078	0	0	10	324.886	10/13/04	10/14/04
0410287-001B	Solid		0.03019	0	0	10	331.236	10/13/04	10/14/04
0410295-001A	Soil		0.03012	0	0	10	332.005	10/13/04	10/13/04
0410296-001A	Soil		0.0307	0	0	10	325.733	10/13/04	10/13/04
0410297-006A	Soil		0.0302	0	0	10	331.126	10/13/04	10/14/04
LCSD-11369-PCB			0.03	0	0	10	333.333	10/13/04	10/13/04
LCS-11369-PCB			0.03	0	0	10	333.333	10/13/04	10/13/04
MB-11369-PCB			0.03	0	0	10	333.333	10/13/04	10/13/04

STAT Analysis Corporation

Date: 22-Oct-04

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Test No: SW8081 **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
MB-11416-PEST	61.0	77.0						
LCS-11416-PEST	57.0	78.0						
LCSD-11416-PEST	55.0	75.0						
0410287-001B	61.0	87.0						
MB-11416-TCLP	72.0	81.0						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/15/04 7:23:40 P**
Prep End Date: **10/15/04 10:14:33 P**

Prep Factor Units: **mL / L**

Prep Batch **11416** Prep Code: **3510_PEST** Technician: **VA**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001B	Solid		0.5	0	0	10	20.000	10/15/04	10/15/04
LCS-11416-PEST			1	0	0	10	10.000	10/15/04	10/15/04
LCSD-11416-PEST			1	0	0	10	10.000	10/15/04	10/15/04
MB-11416-PEST			1	0	0	10	10.000	10/15/04	10/15/04
MB-11416-TCLP			0.5	0	0	10	20.000	10/15/04	10/15/04

STAT Analysis Corporation Date: 22-Oct-04

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station
Test No: SW1311/8321 **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	DCPA							
MB-11465-HERB	121							
LCS-11465-HERB	96.3							
LCSD-11465-HERB	112							
MB-11465-TCLP	112							
0410287-001B	125							

Acronym		Surrogate	QC Limits
DCPA	=	2,4-Dichlororphenylacetic Acid	50-150

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/19/04 5:04:20 P**
Prep End Date:

Prep Batch **11465** Prep Code: **3510_H** Technician: **VA**

Prep Factor Units: **mL / L**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001B	Solid		0.5	0	0	1	2.000	10/19/04	10/20/04
0410382-001A	Water		1	0	0	1	1.000	10/19/04	10/20/04
LCS-11465-Herb			1	0	0	1	1.000	10/19/04	10/20/04
LCSD-11465-Herb			1	0	0	1	1.000	10/19/04	10/20/04
MB-11465-Herb			1	0	0	1	1.000	10/19/04	10/20/04
MB-11465-TCLP			0.5	0	0	1	2.000	10/19/04	10/20/04

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/14/04 8:20:00 A**
Prep End Date: **10/15/04 2:30:00 P**

Prep Batch **11383** Prep Code: **M_W_PREP** Technician: **DGI**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410263-019A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-020A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-021A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-022A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-023A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-024A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-025A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-026A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-027A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-028A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-029A	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-029AMS	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410263-029AMSD	Water		50	0	0	50	1.000	10/15/04	10/15/04
0410271-001A	Soil		50	0	0	50	1.000	10/14/04	10/14/04
0410271-001AMS	Soil		50	0	0	50	1.000	10/14/04	10/14/04
0410271-001AMSD	Soil		50	0	0	50	1.000	10/14/04	10/14/04
0410271-002A	Soil		50	0	0	50	1.000	10/14/04	10/14/04
0410287-001B	Solid		50	0	0	50	1.000	10/15/04	10/15/04
0410308-001A	Soil		50	0	0	50	1.000	10/15/04	10/15/04
0410308-001AMS	Soil		50	0	0	50	1.000	10/15/04	10/15/04
ILCSW1 10/14/04			50	0	0	50	1.000	10/14/04	10/14/04
IMBTCLP1 10/13/04			50	0	0	50	1.000	10/14/04	10/14/04
IMBTCLP1 10/14/04			50	0	0	50	1.000	10/15/04	10/15/04
IMBW1 10/14/04			50	0	0	50	1.000	10/14/04	10/14/04

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/18/04 9:25:00 A**
Prep End Date: **10/18/04 11:25:00 A**

Prep Batch **11424** Prep Code: **M_HG_W_PR** Technician: **PMS**

Prep Factor Units: **mL /**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001B	Solid		30	0	0	30	1.000	10/18/04	10/18/04
0410287-001BMS	Solid		30	0	0	30	1.000	10/18/04	10/18/04
0410316-001C	Water		30	0	0	30	1.000	10/18/04	10/18/04
0410317-001B	Water		30	0	0	30	1.000	10/18/04	10/18/04
0410317-001BMS	Water		30	0	0	30	1.000	10/18/04	10/18/04
0410344-001A	Soil		30	0	0	30	1.000	10/18/04	10/18/04
0410344-001AMS	Soil		30	0	0	30	1.000	10/18/04	10/18/04
0410344-001AMSD	Soil		30	0	0	30	1.000	10/18/04	10/18/04
HGLCSW1 10/18/04			30	0	0	30	1.000	10/18/04	10/18/04
HGMBTCLP1 10/13/0			30	0	0	30	1.000	10/18/04	10/18/04
HGMBTCLP1 10/15/0			30	0	0	30	1.000	10/18/04	10/18/04
HGMBTCLP1 10/17/0			30	0	0	30	1.000	10/18/04	10/18/04
HGMBW1 10/18/04			30	0	0	30	1.000	10/18/04	10/18/04

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/14/04 2:00:00 P**
Prep End Date: **10/14/04 3:45:00 P**

Prep Batch **11389** Prep Code: **TCNPREP_S** Technician: **YZ**

Prep Factor Units: **mL / g**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001B	Solid		1	0	0	50	50.000	10/14/04	10/14/04
0410287-001BMS	Solid		1	0	0	50	50.000	10/14/04	10/14/04
0410287-001BMSD	Solid		1	0	0	50	50.000	10/14/04	10/14/04
TCNLCSDS1 101404			1	0	0	50	50.000	10/14/04	10/14/04
TCNLCSS1 101404			1	0	0	50	50.000	10/14/04	10/14/04
TCNMBS1 101404			1	0	0	50	50.000	10/14/04	10/14/04

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/15/04 8:00:00 A**
Prep End Date: **10/15/04 8:30:00 A**

Prep Batch **11399** Prep Code: **RCNPRP_S** Technician: **YZ**

Prep Factor Units: **mL / g**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001B	Solid		1	0	0	50	50.000	10/15/04	10/15/04
0410287-001BMS	Solid		1	0	0	50	50.000	10/15/04	10/15/04
0410287-001BMSD	Solid		1	0	0	50	50.000	10/15/04	10/15/04
RCNLCSS1 101504			1	0	0	50	50.000	10/15/04	10/15/04
RCNMBS1 101504			1	0	0	50	50.000	10/15/04	10/15/04

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/15/04 9:00:00 A**
Prep End Date: **10/15/04 10:00:00 A**

Prep Batch **11400** Prep Code: **PHENOLPR_S** Technician: **YZ**

Prep Factor Units: **mL / g**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001BO	Solid		1	0	0	50	50.000	10/14/04	10/14/04
0410287-001BOMS	Solid		1	0	0	50	50.000	10/14/04	10/14/04
0410287-001BOMSD	Solid		1	0	0	50	50.000	10/14/04	10/14/04
PHLCSS1 101404			1	0	0	50	50.000	10/14/04	10/14/04
PHMBS1 101404			1	0	0	50	50.000	10/14/04	10/14/04
0410287-001B	Solid		0.2	0	0	50	250.000	10/15/04	10/15/04
0410287-001BMS	Solid		0.2	0	0	50	250.000	10/15/04	10/15/04
0410287-001BMSD	Solid		0.2	0	0	50	250.000	10/15/04	10/15/04

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/15/04 7:45:00 A**
Prep End Date: **10/15/04 9:00:00 A**

Prep Factor Units: **mL / mL**

Prep Batch **11402** Prep Code: **NH4PREP_W** Technician: **YZ**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001B	Solid		50	0	0	50	1.000	10/15/04	10/15/04
0410287-001BMS	Solid		50	0	0	50	1.000	10/15/04	10/15/04
0410287-001BMSD	Solid		50	0	0	50	1.000	10/15/04	10/15/04
0410317-001D	Water		50	0	0	50	1.000	10/15/04	10/15/04
ASTMBL			50	0	0	50	1.000	10/15/04	10/15/04
NH4LCSW1 101504			50	0	0	50	1.000	10/15/04	10/15/04
NH4MBW1 101504			50	0	0	50	1.000	10/15/04	10/15/04

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/18/04 1:00:00 P**
Prep End Date: **10/18/04 2:00:00 P**

Prep Batch **11434** Prep Code: **PHENOLPR_S** Technician: **YZ**

Prep Factor Units: **mL / g**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0410287-001B	Solid		0.1	0	0	50	500.000	10/18/04	10/18/04
0410287-001BMS	Solid		0.1	0	0	50	500.000	10/18/04	10/18/04
0410287-001BMSD	Solid		0.1	0	0	50	500.000	10/18/04	10/18/04
PHLCSS1 101804			1	0	0	50	50.000	10/18/04	10/18/04
PHMBS1 101804			1	0	0	50	50.000	10/18/04	10/18/04

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **10/19/04 9:00:00 A**
Prep End Date: **10/20/04 9:30:00 A**

Prep Factor Units: **mL / g**

Prep Batch **11471** Prep Code: **RSPRP_S** Technician: **YZ**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
RSMBS1 101904			1	0	0	50	50.000	10/19/04	10/19/04
RSLCSS1 101904			1	0	0	50	50.000	10/19/04	10/19/04
0410164-001A	Oil		1	0	0	50	50.000	10/19/04	10/19/04
0410401-001A	Soil		1	0	0	50	50.000	10/20/04	10/20/04
0410164-001AMS	Oil		1	0	0	50	50.000	10/19/04	10/19/04
0410164-001AMSD	Oil		1	0	0	50	50.000	10/19/04	10/19/04
0410287-001B	Solid		1	0	0	50	50.000	10/19/04	10/19/04
0410287-001BMS	Solid		1	0	0	50	50.000	10/19/04	10/19/04
0410287-001BMSD	Solid		1	0	0	50	50.000	10/19/04	10/19/04

STAT Analysis Corporation Date: *October 22, 2004*

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11369

Sample ID **MB-11369-PCB** SampType: **MBLK** TestCode: **PCB_SOIL** Units: **mg/Kg** Prep Date: **10/13/04** Run ID: **GC-ECD_041013B**
Client ID: **ZZZZZ** Batch ID: **11369** TestNo: **SW8082** Analysis Date: **10/13/04** SeqNo: **298072**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.080									
Aroclor 1221	ND	0.080									
Aroclor 1232	ND	0.080									
Aroclor 1242	ND	0.080									
Aroclor 1248	ND	0.080									
Aroclor 1254	ND	0.080									
Aroclor 1260	ND	0.080									

Sample ID **LCS-11369-PCB** SampType: **LCS** TestCode: **PCB_SOIL** Units: **mg/Kg** Prep Date: **10/13/04** Run ID: **GC-ECD_041013B**
Client ID: **ZZZZZ** Batch ID: **11369** TestNo: **SW8082** Analysis Date: **10/13/04** SeqNo: **298073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.353	0.080	0.333	0	106	30	150	0	0		
Aroclor 1260	0.3877	0.080	0.333	0	116	30	150	0	0		

Sample ID **LCSD-11369-PCB** SampType: **LCSD** TestCode: **PCB_SOIL** Units: **mg/Kg** Prep Date: **10/13/04** Run ID: **GC-ECD_041013B**
Client ID: **ZZZZZ** Batch ID: **11369** TestNo: **SW8082** Analysis Date: **10/13/04** SeqNo: **298074**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.3523	0.080	0.333	0	106	30	150	0.353	0.208	25	
Aroclor 1260	0.3685	0.080	0.333	0	111	30	150	0.3877	5.06	25	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11416

Sample ID **MB-11416-TCLP** SampType: **MBLK** TestCode: **PEST_TCLP** Units: **mg/L** Prep Date: **10/15/04** Run ID: **GC-ECD_041015B**
Client ID: **ZZZZZ** Batch ID: **11416** TestNo: **SW8081** Analysis Date: **10/16/04** SeqNo: **295987**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlordane	ND	0.00010									
Endrin	ND	0.00020									
gamma-BHC	ND	0.0010									
Heptachlor	ND	0.00010									
Heptachlor epoxide	ND	0.00010									
Methoxychlor	ND	0.0010									
Toxaphene	ND	0.0020									

Sample ID **MB-11416-PEST** SampType: **MBLK** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **10/15/04** Run ID: **GC-ECD_041015B**
Client ID: **ZZZZZ** Batch ID: **11416** TestNo: **SW8081** Analysis Date: **10/16/04** SeqNo: **295991**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.00010	0	0	0	0	0	0	0		
4,4'-DDE	ND	0.00010	0	0	0	0	0	0	0		
4,4'-DDT	ND	0.00010	0	0	0	0	0	0	0		
Aldrin	ND	0.000050	0	0	0	0	0	0	0		
alpha-BHC	ND	0.000050	0	0	0	0	0	0	0		
alpha-Chlordane	ND	0.000050	0	0	0	0	0	0	0		
beta-BHC	ND	0.000050	0	0	0	0	0	0	0		
Chlordane	ND	0.00050	0	0	0	0	0	0	0		
delta-BHC	ND	0.000050	0	0	0	0	0	0	0		
Dieldrin	ND	0.00010	0	0	0	0	0	0	0		
Endosulfan I	ND	0.000050	0	0	0	0	0	0	0		
Endosulfan II	ND	0.00010	0	0	0	0	0	0	0		
Endosulfan sulfate	ND	0.00010	0	0	0	0	0	0	0		
Endrin	ND	0.00010	0	0	0	0	0	0	0		
Endrin aldehyde	ND	0.00010	0	0	0	0	0	0	0		
Endrin ketone	ND	0.00010	0	0	0	0	0	0	0		
gamma-BHC	ND	0.000050	0	0	0	0	0	0	0		
gamma-Chlordane	ND	0.000050	0	0	0	0	0	0	0		
Heptachlor	ND	0.000050	0	0	0	0	0	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11416

Sample ID **MB-11416-PEST** SampType: **MBLK** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **10/15/04** Run ID: **GC-ECD_041015B**
Client ID: **ZZZZZ** Batch ID: **11416** TestNo: **SW8081** Analysis Date: **10/16/04** SeqNo: **295991**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Heptachlor epoxide	ND	0.000050	0	0	0	0	0	0	0		
Methoxychlor	ND	0.00050	0	0	0	0	0	0	0		
Toxaphene	ND	0.0010	0	0	0	0	0	0	0		

Sample ID **LCS-11416-PEST** SampType: **LCS** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **10/15/04** Run ID: **GC-ECD_041015B**
Client ID: **ZZZZZ** Batch ID: **11416** TestNo: **SW8081** Analysis Date: **10/16/04** SeqNo: **295993**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.00021	0.00010	0.00025	0	84	30	150	0	0		
4,4'-DDE	0.00019	0.00010	0.00025	0	76	30	150	0	0		
4,4'-DDT	0.00024	0.00010	0.00025	0	96	30	150	0	0		
Aldrin	0.00018	0.000050	0.00025	0	72	30	150	0	0		
alpha-BHC	0.00021	0.000050	0.00025	0	84	30	150	0	0		
alpha-Chlordane	0.00015	0.000050	0.00025	0	60	30	150	0	0		
beta-BHC	0.00023	0.000050	0.00025	0	92	30	150	0	0		
delta-BHC	0.00022	0.000050	0.00025	0	88	30	150	0	0		
Dieldrin	0.00017	0.00010	0.00025	0	68	30	150	0	0		
Endosulfan I	0.00021	0.000050	0.00025	0	84	30	150	0	0		
Endosulfan II	0.00022	0.00010	0.00025	0	88	30	150	0	0		
Endosulfan sulfate	0.00023	0.00010	0.00025	0	92	30	150	0	0		
Endrin	0.0003	0.00010	0.00025	0	120	30	150	0	0		
Endrin aldehyde	0.00015	0.00010	0.00025	0	60	30	150	0	0		
Endrin ketone	0.00028	0.00010	0.00025	0	112	30	150	0	0		
gamma-BHC	0.00019	0.000050	0.00025	0	76	30	150	0	0		
gamma-Chlordane	0.0002	0.000050	0.00025	0	80	30	150	0	0		
Heptachlor	0.00021	0.000050	0.00025	0	84	30	150	0	0		
Heptachlor epoxide	0.0002	0.000050	0.00025	0	80	30	150	0	0		
Methoxychlor	0.00014	0.00050	0.00025	0	56	30	150	0	0		J

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11416

Sample ID **LCSD-11416-PEST** SampType: **LCSD** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **10/15/04** Run ID: **GC-ECD_041015B**
Client ID: **ZZZZZ** Batch ID: **11416** TestNo: **SW8081** Analysis Date: **10/16/04** SeqNo: **295995**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.0002	0.00010	0.00025	0	80	30	150	0.00021	4.88	25	
4,4'-DDE	0.0002	0.00010	0.00025	0	80	30	150	0.00019	5.13	25	
4,4'-DDT	0.00023	0.00010	0.00025	0	92	30	150	0.00024	4.26	25	
Aldrin	0.00019	0.000050	0.00025	0	76	30	150	0.00018	5.41	25	
alpha-BHC	0.00021	0.000050	0.00025	0	84	30	150	0.00021	0	25	
alpha-Chlordane	0.00016	0.000050	0.00025	0	64	30	150	0.00015	6.45	25	
beta-BHC	0.00022	0.000050	0.00025	0	88	30	150	0.00023	4.44	25	
delta-BHC	0.00023	0.000050	0.00025	0	92	30	150	0.00022	4.44	25	
Dieldrin	0.00018	0.00010	0.00025	0	72	30	150	0.00017	5.71	25	
Endosulfan I	0.00021	0.000050	0.00025	0	84	30	150	0.00021	0	25	
Endosulfan II	0.00023	0.00010	0.00025	0	92	30	150	0.00022	4.44	25	
Endosulfan sulfate	0.00022	0.00010	0.00025	0	88	30	150	0.00023	4.44	25	
Endrin	0.00033	0.00010	0.00025	0	132	30	150	0.0003	9.52	25	
Endrin aldehyde	0.00016	0.00010	0.00025	0	64	30	150	0.00015	6.45	25	
Endrin ketone	0.00027	0.00010	0.00025	0	108	30	150	0.00028	3.64	25	
gamma-BHC	0.0002	0.000050	0.00025	0	80	30	150	0.00019	5.13	25	
gamma-Chlordane	0.0002	0.000050	0.00025	0	80	30	150	0.0002	0	25	
Heptachlor	0.00021	0.000050	0.00025	0	84	30	150	0.00021	0	25	
Heptachlor epoxide	0.00021	0.000050	0.00025	0	84	30	150	0.0002	4.88	25	
Methoxychlor	0.00015	0.00050	0.00025	0	60	30	150	0.00014	0	25	J

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11465

Sample ID **MB-11465-TCLP** SampType: **MBLK** TestCode: **HERB_TCLP** Units: **mg/L** Prep Date: **10/19/04** Run ID: **HPLC-1_041020A**
Client ID: **ZZZZZ** Batch ID: **11465** TestNo: **SW1311/8321** Analysis Date: **10/20/04** SeqNo: **297744**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	ND	0.0080									*
2,4-D	ND	0.017									*

Sample ID **MB-11465-HERB** SampType: **MBLK** TestCode: **HERB_W** Units: **mg/L** Prep Date: **10/19/04** Run ID: **HPLC-1_041020A**
Client ID: **ZZZZZ** Batch ID: **11465** TestNo: **SW8321** Analysis Date: **10/20/04** SeqNo: **297931**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	ND	0.00020									*
2,4-D	ND	0.00030									*

Sample ID **LCS-11465-HERB** SampType: **LCS** TestCode: **HERB_W** Units: **mg/L** Prep Date: **10/19/04** Run ID: **HPLC-1_041020A**
Client ID: **ZZZZZ** Batch ID: **11465** TestNo: **SW8321** Analysis Date: **10/20/04** SeqNo: **297932**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	0.00063	0.00020	0.001	0	63	50	150	0	0		*
2,4-D	0.000887	0.00030	0.001	0	88.7	50	150	0	0		*

Sample ID **LCSD-11465-HERB** SampType: **LCSD** TestCode: **HERB_W** Units: **mg/L** Prep Date: **10/19/04** Run ID: **HPLC-1_041020A**
Client ID: **ZZZZZ** Batch ID: **11465** TestNo: **SW8321** Analysis Date: **10/20/04** SeqNo: **297933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	0.000803	0.00020	0.001	0	80.3	50	150	0.00063	24.1	25	*
2,4-D	0.001096	0.00030	0.001	0	110	50	150	0.000887	21.1	25	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11465

Sample ID **MB-11465-TCLP** SampType: **MBLK** TestCode: **HERB_TCLP** Units: **mg/L** Prep Date: **10/19/04** Run ID: **HPLC-1_041020A**
Client ID: **ZZZZZ** Batch ID: **11465** TestNo: **SW1311/8321** Analysis Date: **10/20/04** SeqNo: **297744**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	ND	0.0080									*
2,4-D	ND	0.017									*

Sample ID **MB-11465-HERB** SampType: **MBLK** TestCode: **HERB_W** Units: **mg/L** Prep Date: **10/19/04** Run ID: **HPLC-1_041020A**
Client ID: **ZZZZZ** Batch ID: **11465** TestNo: **SW8321** Analysis Date: **10/20/04** SeqNo: **297931**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	ND	0.00020									*
2,4-D	ND	0.00030									*

Sample ID **LCS-11465-HERB** SampType: **LCS** TestCode: **HERB_W** Units: **mg/L** Prep Date: **10/19/04** Run ID: **HPLC-1_041020A**
Client ID: **ZZZZZ** Batch ID: **11465** TestNo: **SW8321** Analysis Date: **10/20/04** SeqNo: **297932**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	0.00063	0.00020	0.001	0	63	50	150	0	0		*
2,4-D	0.000887	0.00030	0.001	0	88.7	50	150	0	0		*

Sample ID **LCSD-11465-HERB** SampType: **LCSD** TestCode: **HERB_W** Units: **mg/L** Prep Date: **10/19/04** Run ID: **HPLC-1_041020A**
Client ID: **ZZZZZ** Batch ID: **11465** TestNo: **SW8321** Analysis Date: **10/20/04** SeqNo: **297933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4,5-TP (Silvex)	0.000803	0.00020	0.001	0	80.3	50	150	0.00063	24.1	25	*
2,4-D	0.001096	0.00030	0.001	0	110	50	150	0.000887	21.1	25	*

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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11383

Sample ID IMBTCLP1 10/14/04 SampType: MBLK TestCode: M_ICPMS_T+ Units: mg/L Prep Date: 10/14/04 Run ID: ICPMS_041018A
Client ID: ZZZZZ Batch ID: 11383 TestNo: SW1311/6020 Analysis Date: 10/18/04 SeqNo: 296246

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.010									
Barium	0.01483	0.020									J
Cadmium	ND	0.0050									
Chromium	ND	0.010									
Copper	0.01861	0.050									J
Lead	ND	0.0050									
Nickel	0.00786	0.020									J
Selenium	ND	0.010									
Silver	ND	0.010									
Zinc	ND	0.050									

Sample ID 0410271-001AMS SampType: MS TestCode: M_ICPMS_T+ Units: mg/L Prep Date: 10/14/04 Run ID: ICPMS-2_041014A
Client ID: ZZZZZ Batch ID: 11383 TestNo: SW1311/6020 Analysis Date: 10/14/04 SeqNo: 295030

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.78	0.020	0.5	0.2427	107	75	125	0	0		
Cadmium	0.3995	0.0050	0.5	0.00294	79.3	75	125	0	0		
Lead	0.568	0.0050	0.5	0.03833	106	75	125	0	0		
Silver	0.1807	0.010	0.2	0.00164	89.5	75	125	0	0		

Sample ID 0410271-001AMS SampType: MS TestCode: M_ICPMS_T+ Units: mg/L Prep Date: 10/14/04 Run ID: ICPMS_041021A
Client ID: ZZZZZ Batch ID: 11383 TestNo: SW1311/6020 Analysis Date: 10/21/04 SeqNo: 298796

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5566	0.010	0.5	0.00429	110	75	125	0	0		
Chromium	0.476	0.010	0.5	0.00664	93.9	75	125	0	0		
Copper	0.5366	0.050	0.5	0.08688	89.9	75	125	0	0		
Nickel	0.4234	0.020	0.5	0	84.7	75	125	0	0		
Selenium	0.5438	0.010	0.5	0	109	75	125	0	0		
Zinc	0.4423	0.050	0.5	0	88.5	75	125	0	0		

Qualifiers:
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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11383

Sample ID **0410271-001AMSD** SampType: **MSD** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS-2_041014A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW1311/6020** Analysis Date: **10/14/04** SeqNo: **295031**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.7935	0.020	0.5	0.2427	110	75	125	0.78	1.72	20	
Cadmium	0.4073	0.0050	0.5	0.00294	80.9	75	125	0.3995	1.93	20	
Lead	0.5815	0.0050	0.5	0.03833	109	75	125	0.568	2.35	20	
Silver	0.1834	0.010	0.2	0.00164	90.9	75	125	0.1807	1.48	20	

Sample ID **0410271-001AMSD** SampType: **MSD** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS_041021A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW1311/6020** Analysis Date: **10/21/04** SeqNo: **298797**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5676	0.010	0.5	0.00429	113	75	125	0.5566	1.96	20	
Chromium	0.4843	0.010	0.5	0.00664	95.5	75	125	0.476	1.73	20	
Copper	0.5382	0.050	0.5	0.08688	90.3	75	125	0.5366	0.298	20	
Nickel	0.4205	0.020	0.5	0	84.1	75	125	0.4234	0.687	20	
Selenium	0.5537	0.010	0.5	0	111	75	125	0.5438	1.80	20	
Zinc	0.4494	0.050	0.5	0	89.9	75	125	0.4423	1.59	20	

Sample ID **IMBW1 10/14/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS-2_041014A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW6020** Analysis Date: **10/14/04** SeqNo: **295019**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.00129	0.0040									J
Cadmium	0.0012	0.0020									J
Lead	0.00144	0.0020									J
Silver	0.00087	0.0040									J

Sample ID **IMBW1 10/14/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS_041021A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW6020** Analysis Date: **10/21/04** SeqNo: **298790**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.010									
Chromium	ND	0.010									

Qualifiers:
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B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11383

Sample ID **IMBW1 10/14/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS_041021A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW6020** Analysis Date: **10/21/04** SeqNo: **298790**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.025									
Nickel	ND	0.010									
Selenium	ND	0.010									
Zinc	ND	0.050									

Sample ID **ILCSW1 10/14/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS-2_041014A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW6020** Analysis Date: **10/14/04** SeqNo: **295020**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.519	0.0040	0.5	0.00129	104	80	120	0	0		
Cadmium	0.535	0.0020	0.5	0.0012	107	80	120	0	0		
Lead	0.5123	0.0020	0.5	0.00144	102	80	120	0	0		
Silver	0.2181	0.0040	0.2	0.00087	109	80	120	0	0		

Sample ID **ILCSW1 10/14/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS_041021A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW6020** Analysis Date: **10/21/04** SeqNo: **298793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5245	0.010	0.5	0	105	80	120	0	0		
Chromium	0.5169	0.010	0.5	0	103	80	120	0	0		
Copper	0.5128	0.025	0.5	0	103	80	120	0	0		
Nickel	0.4808	0.010	0.5	0	96.2	80	120	0	0		
Selenium	0.5206	0.010	0.5	0	104	80	120	0	0		
Zinc	0.523	0.050	0.5	0	105	80	120	0	0		

Sample ID **0410263-029AMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS_041018A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW6020** Analysis Date: **10/18/04** SeqNo: **296244**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5958	0.010	0.5	0	119	75	125	0	0		
Barium	0.6848	0.010	0.5	0.08397	120	75	125	0	0		

Qualifiers:
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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11383

Sample ID **0410263-029AMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS_041018A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW6020** Analysis Date: **10/18/04** SeqNo: **296244**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.5585	0.0050	0.5	0	112	75	125	0	0		
Chromium	0.5798	0.010	0.5	0	116	75	125	0	0		
Copper	0.599	0.025	0.5	0.03935	112	75	125	0	0		
Lead	0.585	0.0050	0.5	0.00959	115	75	125	0	0		
Nickel	0.569	0.010	0.5	0.00065	114	75	125	0	0		
Selenium	0.5608	0.010	0.5	0	112	75	125	0	0		
Silver	0.223	0.010	0.2	0	112	75	125	0	0		
Zinc	0.696	0.050	0.5	0.1204	115	75	125	0	0		

Sample ID **0410263-029AMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **10/14/04** Run ID: **ICPMS_041018A**
Client ID: **ZZZZZ** Batch ID: **11383** TestNo: **SW6020** Analysis Date: **10/18/04** SeqNo: **296245**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.6072	0.010	0.5	0	121	75	125	0.5958	1.91	20	
Barium	0.695	0.010	0.5	0.08397	122	75	125	0.6848	1.49	20	
Cadmium	0.5738	0.0050	0.5	0	115	75	125	0.5585	2.69	20	
Chromium	0.6062	0.010	0.5	0	121	75	125	0.5798	4.47	20	
Copper	0.622	0.025	0.5	0.03935	117	75	125	0.599	3.77	20	
Lead	0.6095	0.0050	0.5	0.00959	120	75	125	0.585	4.10	20	
Nickel	0.589	0.010	0.5	0.00065	118	75	125	0.569	3.45	20	
Selenium	0.5888	0.010	0.5	0	118	75	125	0.5608	4.87	20	
Silver	0.229	0.010	0.2	0	115	75	125	0.223	2.64	20	
Zinc	0.7235	0.050	0.5	0.1204	121	75	125	0.696	3.87	20	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11424

Sample ID HGMBTCLP1 10/13/ SampType: MBLK TestCode: M_1311_HG Units: mg/L Prep Date: 10/18/04 Run ID: CETAC_041018A
Client ID: ZZZZZ Batch ID: 11424 TestNo: SW1311/7470 Analysis Date: 10/18/04 SeqNo: 296084

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID HGMBTCLP1 10/15/ SampType: MBLK TestCode: M_1311_HG Units: mg/L Prep Date: 10/18/04 Run ID: CETAC_041018A
Client ID: ZZZZZ Batch ID: 11424 TestNo: SW1311/7470 Analysis Date: 10/18/04 SeqNo: 296086

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID 0410344-001AMS SampType: MS TestCode: M_1311_HG Units: mg/L Prep Date: 10/18/04 Run ID: CETAC_041018A
Client ID: ZZZZZ Batch ID: 11424 TestNo: SW1311/7470 Analysis Date: 10/18/04 SeqNo: 296090

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.00025	0.0025	0	100	75	125	0	0		

Sample ID 0410287-001BMS SampType: MS TestCode: M_1311_HG Units: mg/L Prep Date: 10/18/04 Run ID: CETAC_041018A
Client ID: HAS-WC-GAC-1013 Batch ID: 11424 TestNo: SW1311/7470 Analysis Date: 10/18/04 SeqNo: 296094

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00246	0.00025	0.0025	0	98.4	75	125	0	0		

Sample ID 0410344-001AMSD SampType: MSD TestCode: M_1311_HG Units: mg/L Prep Date: 10/18/04 Run ID: CETAC_041018A
Client ID: ZZZZZ Batch ID: 11424 TestNo: SW1311/7470 Analysis Date: 10/18/04 SeqNo: 296092

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00269	0.00025	0.0025	0	108	75	125	0.0025	7.32	20	

Sample ID HGMBW1 10/18/04 SampType: MBLK TestCode: M_HG_WATE Units: mg/L Prep Date: 10/18/04 Run ID: CETAC_041018A
Client ID: ZZZZZ Batch ID: 11424 TestNo: SW7470A Analysis Date: 10/18/04 SeqNo: 296081

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11424

Sample ID	HGMBW1 10/18/04	SampType:	MBLK	TestCode:	M_HG_WATE	Units:	mg/L	Prep Date:	10/18/04	Run ID:	CETAC_041018A
Client ID:	ZZZZZ	Batch ID:	11424	TestNo:	SW7470A			Analysis Date:	10/18/04	SeqNo:	296081

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID	HGMBTCLP1 10/17/	SampType:	MBLK	TestCode:	M_HG_WATE	Units:	mg/L	Prep Date:	10/18/04	Run ID:	CETAC_041018A
Client ID:	ZZZZZ	Batch ID:	11424	TestNo:	SW7470A			Analysis Date:	10/18/04	SeqNo:	296100

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID	HGLCSW1 10/18/04	SampType:	LCS	TestCode:	M_HG_WATE	Units:	mg/L	Prep Date:	10/18/04	Run ID:	CETAC_041018A
Client ID:	ZZZZZ	Batch ID:	11424	TestNo:	SW7470A			Analysis Date:	10/18/04	SeqNo:	296082

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00242	0.00025	0.0025	0	96.8	80	120	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11363

Sample ID	MB-11363-SVOC	SampType:	MBLK	TestCode:	SVOC_SOIL	Units:	mg/Kg	Prep Date:	10/13/04	Run ID:	SVOC-2_041014A
Client ID:	ZZZZZ	Batch ID:	11363	TestNo:	SW8270C			Analysis Date:	10/14/04	SeqNo:	294844

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.17									
1,2-Dichlorobenzene	ND	0.17									
1,3-Dichlorobenzene	ND	0.17									
1,4-Dichlorobenzene	ND	0.17									
2, 2'-oxybis(1-Chloropropane)	ND	0.17									
2,4,5-Trichlorophenol	ND	0.33									
2,4,6-Trichlorophenol	ND	0.17									
2,4-Dichlorophenol	ND	0.17									
2,4-Dimethylphenol	ND	0.17									
2,4-Dinitrophenol	ND	0.80									
2,4-Dinitrotoluene	ND	0.17									
2,6-Dinitrotoluene	ND	0.17									
2-Chloronaphthalene	ND	0.17									
2-Chlorophenol	ND	0.17									
2-Methylnaphthalene	ND	0.17									
2-Methylphenol	ND	0.17									
2-Nitroaniline	ND	0.80									
2-Nitrophenol	ND	0.17									
3,3'-Dichlorobenzidine	ND	0.33									
3-Nitroaniline	ND	0.80									
4,6-Dinitro-2-methylphenol	ND	0.80									
4-Bromophenyl phenyl ether	ND	0.17									
4-Chloro-3-methylphenol	ND	0.17									
4-Chloroaniline	ND	0.17									
4-Chlorophenyl phenyl ether	ND	0.17									
4-Methylphenol	ND	0.17									
4-Nitroaniline	ND	0.80									
4-Nitrophenol	ND	0.80									
Acenaphthene	ND	0.17									
Acenaphthylene	ND	0.17									
Aniline	ND	0.17									

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11363

Sample ID	MB-11363-SVOC	SampType:	MBLK	TestCode:	SVOC_SOIL	Units:	mg/Kg	Prep Date:	10/13/04	Run ID:	SVOC-2_041014A
Client ID:	ZZZZZ	Batch ID:	11363	TestNo:	SW8270C			Analysis Date:	10/14/04	SeqNo:	294844

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Anthracene	ND	0.17									
Benz(a)anthracene	ND	0.17									
Benzidine	ND	0.17									
Benzo(a)pyrene	ND	0.17									
Benzo(b)fluoranthene	ND	0.17									
Benzo(g,h,i)perylene	ND	0.17									
Benzo(k)fluoranthene	ND	0.17									
Benzoic acid	ND	0.80									
Benzyl alcohol	ND	0.17									
Bis(2-chloroethoxy)methane	ND	0.17									
Bis(2-chloroethyl)ether	ND	0.17									
Bis(2-ethylhexyl)phthalate	ND	0.17									
Butyl benzyl phthalate	ND	0.17									
Carbazole	ND	0.17									
Chrysene	ND	0.17									
Di-n-butyl phthalate	ND	0.17									
Di-n-octyl phthalate	ND	0.17									
Dibenz(a,h)anthracene	ND	0.17									
Dibenzofuran	ND	0.17									
Diethyl phthalate	ND	0.17									
Dimethyl phthalate	ND	0.17									
Fluoranthene	ND	0.17									
Fluorene	ND	0.17									
Hexachlorobenzene	ND	0.17									
Hexachlorobutadiene	ND	0.17									
Hexachlorocyclopentadiene	ND	0.17									
Hexachloroethane	ND	0.17									
Indeno(1,2,3-cd)pyrene	ND	0.17									
Isophorone	ND	0.17									
N-Nitrosodi-n-propylamine	ND	0.17									
N-Nitrosodimethylamine	ND	0.17									

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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11363

Sample ID **MB-11363-SVOC** SampType: **MBLK** TestCode: **SVOC_SOIL** Units: **mg/Kg** Prep Date: **10/13/04** Run ID: **SVOC-2_041014A**
Client ID: **ZZZZZ** Batch ID: **11363** TestNo: **SW8270C** Analysis Date: **10/14/04** SeqNo: **294844**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
N-Nitrosodiphenylamine	ND	0.17									
Naphthalene	ND	0.17									
Nitrobenzene	ND	0.17									
Pentachlorophenol	ND	0.80									
Phenanthrene	ND	0.17									
Phenol	ND	0.17									
Pyrene	ND	0.17									
Pyridine	ND	0.17									

Sample ID **LCS-11363-SVOC** SampType: **LCS** TestCode: **SVOC_SOIL** Units: **mg/Kg** Prep Date: **10/13/04** Run ID: **SVOC-2_041014A**
Client ID: **ZZZZZ** Batch ID: **11363** TestNo: **SW8270C** Analysis Date: **10/14/04** SeqNo: **294845**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	1.175	0.17	1.667	0	70.5	55	106	0	0		
1,4-Dichlorobenzene	1.171	0.17	1.667	0	70.2	55	90	0	0		
2,4-Dinitrotoluene	1.209	0.17	1.667	0	72.5	55	101	0	0		
2-Chlorophenol	2.321	0.17	3.333	0	69.6	61	91	0	0		
4-Chloro-3-methylphenol	2.459	0.17	3.333	0	73.8	62	100	0	0		
4-Nitrophenol	2.446	0.80	3.333	0	73.4	53	123	0	0		
Acenaphthene	1.387	0.17	1.667	0	83.2	65	101	0	0		
N-Nitrosodi-n-propylamine	1.121	0.17	1.667	0	67.2	55	100	0	0		
Pentachlorophenol	2.084	0.80	3.333	0	62.5	40	120	0	0		
Phenol	2.383	0.17	3.333	0	71.5	60	91	0	0		
Pyrene	1.399	0.17	1.667	0	83.9	50	131	0	0		

Sample ID **LCSD-11363-SVOC** SampType: **LCSD** TestCode: **SVOC_SOIL** Units: **mg/Kg** Prep Date: **10/13/04** Run ID: **SVOC-2_041014A**
Client ID: **ZZZZZ** Batch ID: **11363** TestNo: **SW8270C** Analysis Date: **10/14/04** SeqNo: **294846**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	1.189	0.17	1.667	0	71.3	55	106	1.175	1.18	23	
1,4-Dichlorobenzene	1.179	0.17	1.667	0	70.7	55	90	1.171	0.738	27	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11363

Sample ID **LCSD-11363-SVOC** SampType: **LCSD** TestCode: **SVOC_SOIL** Units: mg/Kg Prep Date: **10/13/04** Run ID: **SVOC-2_041014A**
Client ID: **ZZZZZ** Batch ID: **11363** TestNo: **SW8270C** Analysis Date: **10/14/04** SeqNo: **294846**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	1.199	0.17	1.667	0	71.9	55	101	1.209	0.831	47	
2-Chlorophenol	2.369	0.17	3.333	0	71.1	61	91	2.321	2.06	50	
4-Chloro-3-methylphenol	2.48	0.17	3.333	0	74.4	62	100	2.459	0.850	33	
4-Nitrophenol	2.536	0.80	3.333	0	76.1	53	123	2.446	3.61	50	
Acenaphthene	1.418	0.17	1.667	0	85	65	101	1.387	2.19	19	
N-Nitrosodi-n-propylamine	1.162	0.17	1.667	0	69.7	55	100	1.121	3.59	38	
Pentachlorophenol	2.015	0.80	3.333	0	60.5	40	120	2.084	3.38	47	
Phenol	2.458	0.17	3.333	0	73.7	60	91	2.383	3.11	35	
Pyrene	1.38	0.17	1.667	0	82.8	50	131	1.399	1.39	36	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11395

Sample ID **MB-11395-TCLP** SampType: **MBLK** TestCode: **SVOC_TCLP** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SVOC-2_041019A**
Client ID: **ZZZZZ** Batch ID: **11395** TestNo: **SW1311/8270** Analysis Date: **10/19/04** SeqNo: **297327**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.020									
2,4,5-Trichlorophenol	ND	0.020									
2,4,6-Trichlorophenol	ND	0.020									
2,4-Dinitrotoluene	ND	0.020									
2-methylphenol	ND	0.020									
3- & 4-Methylphenol	ND	0.020									
Hexachlorobenzene	ND	0.020									
Hexachlorobutadiene	ND	0.020									
Hexachloroethane	ND	0.020									
Nitrobenzene	ND	0.020									
Pentachlorophenol	ND	0.050									
Pyridine	ND	0.050									

Sample ID **MB-11395-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SVOC-2_041019A**
Client ID: **ZZZZZ** Batch ID: **11395** TestNo: **SW8270C** Analysis Date: **10/19/04** SeqNo: **297324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.010									
1,2-Dichlorobenzene	ND	0.010									
1,3-Dichlorobenzene	ND	0.010									
1,4-Dichlorobenzene	ND	0.010									
2, 2'-oxybis(1-Chloropropane)	ND	0.010									
2,4,5-Trichlorophenol	ND	0.010									
2,4,6-Trichlorophenol	ND	0.010									
2,4-Dichlorophenol	ND	0.010									
2,4-Dimethylphenol	ND	0.010									
2,4-Dinitrophenol	ND	0.025									
2,4-Dinitrotoluene	ND	0.010									
2,6-Dinitrotoluene	ND	0.010									
2-Chloronaphthalene	ND	0.010									
2-Chlorophenol	ND	0.010									

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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11395

Sample ID	MB-11395-SVOC	SampType:	MBLK	TestCode:	SVOC_WATE	Units:	mg/L	Prep Date:	10/14/04	Run ID:	SVOC-2_041019A
Client ID:	ZZZZZ	Batch ID:	11395	TestNo:	SW8270C			Analysis Date:	10/19/04	SeqNo:	297324

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	0.010									
2-Methylphenol	ND	0.010									
2-Nitroaniline	ND	0.025									
2-Nitrophenol	ND	0.010									
3,3'-Dichlorobenzidine	ND	0.020									
3-Nitroaniline	ND	0.025									
4,6-Dinitro-2-methylphenol	ND	0.025									
4-Bromophenyl phenyl ether	ND	0.010									
4-Chloro-3-methylphenol	ND	0.010									
4-Chloroaniline	ND	0.010									
4-Chlorophenyl phenyl ether	ND	0.010									
4-Methylphenol	ND	0.010									
4-Nitroaniline	ND	0.025									
4-Nitrophenol	ND	0.025									
Acenaphthene	ND	0.010									
Acenaphthylene	ND	0.010									
Aniline	ND	0.025									
Anthracene	ND	0.010									
Benz(a)anthracene	ND	0.010									
Benzidine	ND	0.025									
Benzo(a)pyrene	ND	0.010									
Benzo(b)fluoranthene	ND	0.010									
Benzo(g,h,i)perylene	ND	0.010									
Benzo(k)fluoranthene	ND	0.010									
Benzoic acid	0.00489	0.025									J
Benzyl alcohol	ND	0.010									
Bis(2-chloroethoxy)methane	ND	0.010									
Bis(2-chloroethyl)ether	ND	0.010									
Bis(2-ethylhexyl)phthalate	ND	0.010									
Butyl benzyl phthalate	ND	0.010									
Carbazole	ND	0.025									

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11395

Sample ID **MB-11395-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SVOC-2_041019A**
Client ID: **ZZZZZ** Batch ID: **11395** TestNo: **SW8270C** Analysis Date: **10/19/04** SeqNo: **297324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	ND	0.010									
Di-n-butyl phthalate	ND	0.010									
Di-n-octyl phthalate	ND	0.010									
Dibenz(a,h)anthracene	ND	0.010									
Dibenzofuran	ND	0.010									
Diethyl phthalate	ND	0.010									
Dimethyl phthalate	ND	0.010									
Fluoranthene	ND	0.010									
Fluorene	ND	0.010									
Hexachlorobenzene	ND	0.010									
Hexachlorobutadiene	ND	0.010									
Hexachlorocyclopentadiene	ND	0.010									
Hexachloroethane	ND	0.010									
Indeno(1,2,3-cd)pyrene	ND	0.010									
Isophorone	ND	0.010									
N-Nitrosodi-n-propylamine	ND	0.010									
N-Nitrosodimethylamine	ND	0.010									
N-Nitrosodiphenylamine	ND	0.010									
Naphthalene	ND	0.010									
Nitrobenzene	ND	0.010									
Pentachlorophenol	ND	0.010									
Phenanthrene	ND	0.010									
Phenol	ND	0.010									
Pyrene	ND	0.010									
Pyridine	ND	0.025									

Sample ID **LCS-11395-SVOC** SampType: **LCS** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SVOC-2_041019A**
Client ID: **ZZZZZ** Batch ID: **11395** TestNo: **SW8270C** Analysis Date: **10/19/04** SeqNo: **297325**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.04457	0.010	0.05	0	89.1	31	101	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11395

Sample ID **LCS-11395-SVOC** SampType: **LCS** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SVOC-2_041019A**
Client ID: **ZZZZZ** Batch ID: **11395** TestNo: **SW8270C** Analysis Date: **10/19/04** SeqNo: **297325**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.04605	0.010	0.05	0	92.1	27	99	0	0		
2,4-Dinitrotoluene	0.03988	0.010	0.05	0	79.8	44	123	0	0		
2-Chlorophenol	0.08645	0.010	0.1	0	86.5	30	97	0	0		
4-Chloro-3-methylphenol	0.07973	0.010	0.1	0	79.7	43	113	0	0		
4-Nitrophenol	0.07498	0.025	0.1	0	75	10	129	0	0		
Acenaphthene	0.05059	0.010	0.05	0	101	43	122	0	0		
N-Nitrosodi-n-propylamine	0.03881	0.010	0.05	0	77.6	36	104	0	0		
Pentachlorophenol	0.07293	0.010	0.1	0	72.9	50	113	0	0		
Phenol	0.08428	0.010	0.1	0	84.3	12	101	0	0		
Pyrene	0.04209	0.010	0.05	0	84.2	54	131	0	0		

Sample ID **LCSD-11395-SVOC** SampType: **LCSD** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SVOC-2_041019A**
Client ID: **ZZZZZ** Batch ID: **11395** TestNo: **SW8270C** Analysis Date: **10/19/04** SeqNo: **297326**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.0441	0.010	0.05	0	88.2	31	101	0.04457	1.06	28	
1,4-Dichlorobenzene	0.04583	0.010	0.05	0	91.7	27	99	0.04605	0.479	28	
2,4-Dinitrotoluene	0.03754	0.010	0.05	0	75.1	44	123	0.03988	6.04	38	
2-Chlorophenol	0.08617	0.010	0.1	0	86.2	30	97	0.08645	0.324	40	
4-Chloro-3-methylphenol	0.07652	0.010	0.1	0	76.5	43	113	0.07973	4.11	42	
4-Nitrophenol	0.07209	0.025	0.1	0	72.1	10	129	0.07498	3.93	50	
Acenaphthene	0.04874	0.010	0.05	0	97.5	43	122	0.05059	3.72	31	
N-Nitrosodi-n-propylamine	0.03805	0.010	0.05	0	76.1	36	104	0.03881	1.98	38	
Pentachlorophenol	0.07054	0.010	0.1	0	70.5	50	113	0.07293	3.33	50	
Phenol	0.0841	0.010	0.1	0	84.1	12	101	0.08428	0.214	42	
Pyrene	0.04051	0.010	0.05	0	81	54	131	0.04209	3.83	31	

Qualifiers:
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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11453

Sample ID **MB-11453-PNA** SampType: **MBLK** TestCode: **PNA_SOLID** Units: **mg/Kg** Prep Date: **10/19/04** Run ID: **SVOC-3_041020A**
Client ID: **ZZZZZ** Batch ID: **11453** TestNo: **SW8270C-SI** Analysis Date: **10/20/04** SeqNo: **297562**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.10									
Acenaphthylene	ND	0.10									
Acenaphthene	ND	0.10									
Fluorene	ND	0.10									
Phenanthrene	ND	0.10									
Anthracene	ND	0.10									
Fluoranthene	ND	0.10									
Pyrene	ND	0.10									
Benz(a)anthracene	ND	0.10									
Chrysene	ND	0.10									
Benzo(b)fluoranthene	ND	0.10									
Benzo(k)fluoranthene	ND	0.10									
Benzo(a)pyrene	ND	0.10									
Indeno(1,2,3-cd)pyrene	ND	0.10									
Dibenz(a,h)anthracene	ND	0.10									
Benzo(g,h,i)perylene	ND	0.10									

Sample ID **LCS-11453-PNA** SampType: **LCS** TestCode: **PNA_SOLID** Units: **mg/Kg** Prep Date: **10/19/04** Run ID: **SVOC-3_041020A**
Client ID: **ZZZZZ** Batch ID: **11453** TestNo: **SW8270C-SI** Analysis Date: **10/20/04** SeqNo: **297563**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	5.2	0.10	5	0	104	30	130	0	0		
Acenaphthylene	5.5	0.10	5	0	110	30	130	0	0		
Acenaphthene	5.2	0.10	5	0	104	30	130	0	0		
Fluorene	5.5	0.10	5	0	110	30	130	0	0		
Phenanthrene	5.3	0.10	5	0	106	30	130	0	0		
Anthracene	5.7	0.10	5	0	114	30	130	0	0		
Fluoranthene	5.6	0.10	5	0	112	30	130	0	0		
Pyrene	5.3	0.10	5	0	106	30	130	0	0		
Benz(a)anthracene	5.3	0.10	5	0	106	30	130	0	0		
Chrysene	5.2	0.10	5	0	104	30	130	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11453

Sample ID **LCS-11453-PNA** SampType: **LCS** TestCode: **PNA_SOLID** Units: **mg/Kg** Prep Date: **10/19/04** Run ID: **SVOC-3_041020A**
Client ID: **ZZZZZ** Batch ID: **11453** TestNo: **SW8270C-SI** Analysis Date: **10/20/04** SeqNo: **297563**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	5.6	0.10	5	0	112	30	130	0	0		
Benzo(k)fluoranthene	5.1	0.10	5	0	102	30	130	0	0		
Benzo(a)pyrene	5.4	0.10	5	0	108	30	130	0	0		
Indeno(1,2,3-cd)pyrene	5.3	0.10	5	0	106	30	130	0	0		
Dibenz(a,h)anthracene	5.2	0.10	5	0	104	30	130	0	0		
Benzo(g,h,i)perylene	5.2	0.10	5	0	104	30	130	0	0		

Sample ID **LCSD-11453-PNA** SampType: **LCSD** TestCode: **PNA_SOLID** Units: **mg/Kg** Prep Date: **10/19/04** Run ID: **SVOC-3_041020A**
Client ID: **ZZZZZ** Batch ID: **11453** TestNo: **SW8270C-SI** Analysis Date: **10/20/04** SeqNo: **297625**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	5.2	0.10	5	0	104	30	130	5.2	0	50	
Acenaphthylene	5.5	0.10	5	0	110	30	130	5.5	0	50	
Acenaphthene	5.3	0.10	5	0	106	30	130	5.2	1.90	50	
Fluorene	5.5	0.10	5	0	110	30	130	5.5	0	50	
Phenanthrene	5.3	0.10	5	0	106	30	130	5.3	0	50	
Anthracene	5.7	0.10	5	0	114	30	130	5.7	0	50	
Fluoranthene	5.6	0.10	5	0	112	30	130	5.6	0	50	
Pyrene	5.3	0.10	5	0	106	30	130	5.3	0	50	
Benz(a)anthracene	5.3	0.10	5	0	106	30	130	5.3	0	50	
Chrysene	5.3	0.10	5	0	106	30	130	5.2	1.90	50	
Benzo(b)fluoranthene	5.7	0.10	5	0	114	30	130	5.6	1.77	50	
Benzo(k)fluoranthene	5.2	0.10	5	0	104	30	130	5.1	1.94	50	
Benzo(a)pyrene	5.5	0.10	5	0	110	30	130	5.4	1.83	50	
Indeno(1,2,3-cd)pyrene	5.3	0.10	5	0	106	30	130	5.3	0	50	
Dibenz(a,h)anthracene	5.3	0.10	5	0	106	30	130	5.2	1.90	50	
Benzo(g,h,i)perylene	5.3	0.10	5	0	106	30	130	5.2	1.90	50	

Qualifiers:
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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R14821

Sample ID **VBLK101504-2** SampType: **MBLK** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-2_041015A**
Client ID: **ZZZZZ** Batch ID: **R14821** TestNo: **SW8260B** Analysis Date: **10/15/04** SeqNo: **295268**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
2-Butanone	ND	0.010									
Benzene	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroform	ND	0.0050									
Ethylbenzene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									
Xylenes, Total	ND	0.010									

Sample ID **VLCS101504-2** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-2_041015A**
Client ID: **ZZZZZ** Batch ID: **R14821** TestNo: **SW8260B** Analysis Date: **10/15/04** SeqNo: **295269**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	0.05104	0.0050	0.05	0	102	70	130	0	0		
1,2-Dichloroethane	0.05479	0.0050	0.05	0	110	70	130	0	0		
2-Butanone	0.05242	0.010	0.05	0	105	70	130	0	0		
Benzene	0.0474	0.0050	0.05	0	94.8	70	130	0	0		
Carbon tetrachloride	0.04623	0.0050	0.05	0	92.5	70	130	0	0		
Chlorobenzene	0.04909	0.0050	0.05	0	98.2	70	130	0	0		
Chloroform	0.05048	0.0050	0.05	0	101	70	130	0	0		
Ethylbenzene	0.04678	0.0050	0.05	0	93.6	70	130	0	0		
Tetrachloroethene	0.04975	0.0050	0.05	0	99.5	70	130	0	0		
Toluene	0.04772	0.0050	0.05	0	95.4	70	130	0	0		
Trichloroethene	0.04857	0.0050	0.05	0	97.1	70	130	0	0		
Vinyl chloride	0.05349	0.0050	0.05	0	107	70	130	0	0		
Xylenes, Total	0.1449	0.010	0.15	0	96.6	70	130	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R14821

Sample ID **0410287-001BMS** SampType: **MS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-2_041015A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **R14821** TestNo: **SW8260B** Analysis Date: **10/15/04** SeqNo: **295302**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	0.5108	0.050	0.5	0	102	70	130	0	0		
1,2-Dichloroethane	0.5511	0.050	0.5	0	110	70	130	0	0		
2-Butanone	0.5888	0.10	0.5	0	118	70	130	0	0		
Benzene	0.4803	0.050	0.5	0	96.1	70	130	0	0		
Carbon tetrachloride	0.4739	0.050	0.5	0	94.8	70	130	0	0		
Chlorobenzene	0.4871	0.050	0.5	0	97.4	70	130	0	0		
Chloroform	0.497	0.050	0.5	0	99.4	70	130	0	0		
Ethylbenzene	0.4677	0.050	0.5	0	93.5	70	130	0	0		
Tetrachloroethene	0.4935	0.050	0.5	0	98.7	70	130	0	0		
Toluene	0.4979	0.050	0.5	0	99.6	70	130	0	0		
Trichloroethene	0.4943	0.050	0.5	0.0493	89	70	130	0	0		
Vinyl chloride	0.5366	0.050	0.5	0	107	70	130	0	0		
Xylenes, Total	1.477	0.10	1.5	0	98.5	70	130	0	0		

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-2_041015A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **R14821** TestNo: **SW8260B** Analysis Date: **10/15/04** SeqNo: **295303**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	0.49	0.050	0.5	0	98	70	130	0.5108	4.16	15	
1,2-Dichloroethane	0.5337	0.050	0.5	0	107	70	130	0.5511	3.21	15	
2-Butanone	0.5905	0.10	0.5	0	118	70	130	0.5888	0.288	15	
Benzene	0.456	0.050	0.5	0	91.2	70	130	0.4803	5.19	15	
Carbon tetrachloride	0.4472	0.050	0.5	0	89.4	70	130	0.4739	5.80	15	
Chlorobenzene	0.4959	0.050	0.5	0	99.2	70	130	0.4871	1.79	15	
Chloroform	0.4905	0.050	0.5	0	98.1	70	130	0.497	1.32	15	
Ethylbenzene	0.4629	0.050	0.5	0	92.6	70	130	0.4677	1.03	15	
Tetrachloroethene	0.4988	0.050	0.5	0	99.8	70	130	0.4935	1.07	15	
Toluene	0.4776	0.050	0.5	0	95.5	70	130	0.4979	4.16	15	
Trichloroethene	0.463	0.050	0.5	0.0493	82.7	70	130	0.4943	6.54	15	
Vinyl chloride	0.5008	0.050	0.5	0	100	70	130	0.5366	6.90	15	
Xylenes, Total	1.484	0.10	1.5	0	99	70	130	1.477	0.500	15	

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R14836

Sample ID **VBLK101704-2** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_041017A**
Client ID: **ZZZZZ** Batch ID: **R14836** TestNo: **SW5035/8260** Analysis Date: **10/17/04** SeqNo: **295717**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
2-Butanone	ND	0.010									
Benzene	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroform	ND	0.0050									
Ethylbenzene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									
Xylenes, Total	ND	0.010									

Sample ID **VLCS101704-2** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_041017A**
Client ID: **ZZZZZ** Batch ID: **R14836** TestNo: **SW5035/8260** Analysis Date: **10/17/04** SeqNo: **295718**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	0.05123	0.0050	0.05	0	102	70	130	0	0		
1,2-Dichloroethane	0.04842	0.0050	0.05	0	96.8	70	130	0	0		
2-Butanone	0.04815	0.010	0.05	0	96.3	70	130	0	0		
Benzene	0.04696	0.0050	0.05	0	93.9	70	130	0	0		
Carbon tetrachloride	0.05256	0.0050	0.05	0	105	70	130	0	0		
Chlorobenzene	0.05136	0.0050	0.05	0	103	70	130	0	0		
Chloroform	0.04871	0.0050	0.05	0	97.4	70	130	0	0		
Ethylbenzene	0.04787	0.0050	0.05	0	95.7	70	130	0	0		
Tetrachloroethene	0.05901	0.0050	0.05	0	118	70	130	0	0		
Toluene	0.04952	0.0050	0.05	0	99	70	130	0	0		
Trichloroethene	0.05136	0.0050	0.05	0	103	70	130	0	0		
Vinyl chloride	0.05434	0.0050	0.05	0	109	70	130	0	0		
Xylenes, Total	0.1563	0.010	0.15	0	104	70	130	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R14836

Sample ID **VLCSD101704-2** SampType: **LCSD** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_041017A**
Client ID: **ZZZZZ** Batch ID: **R14836** TestNo: **SW5035/8260** Analysis Date: **10/17/04** SeqNo: **295719**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	0.0515	0.0050	0.05	0	103	70	130	0.05123	0.526	20	
1,2-Dichloroethane	0.05654	0.0050	0.05	0	113	70	130	0.04842	15.5	20	
2-Butanone	0.05508	0.010	0.05	0	110	70	130	0.04815	13.4	20	
Benzene	0.04488	0.0050	0.05	0	89.8	70	130	0.04696	4.53	20	
Carbon tetrachloride	0.05808	0.0050	0.05	0	116	70	130	0.05256	9.98	20	
Chlorobenzene	0.05214	0.0050	0.05	0	104	70	130	0.05136	1.51	20	
Chloroform	0.0495	0.0050	0.05	0	99	70	130	0.04871	1.61	20	
Ethylbenzene	0.05006	0.0050	0.05	0	100	70	130	0.04787	4.47	20	
Tetrachloroethene	0.05881	0.0050	0.05	0	118	70	130	0.05901	0.340	20	
Toluene	0.0546	0.0050	0.05	0	109	70	130	0.04952	9.76	20	
Trichloroethene	0.0556	0.0050	0.05	0	111	70	130	0.05136	7.93	20	
Vinyl chloride	0.05278	0.0050	0.05	0	106	70	130	0.05434	2.91	20	
Xylenes, Total	0.1573	0.010	0.15	0	105	70	130	0.1563	0.644	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11389

Sample ID TCNMBS1 101404 SampType: MBLK TestCode: CN_TS Units: mg/Kg Prep Date: 10/14/04 Run ID: LACHAT_041015C
Client ID: ZZZZZ Batch ID: 11389 TestNo: SW9012A Analysis Date: 10/15/04 SeqNo: 295914

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.25									

Sample ID TCNLCSS1 101404 SampType: LCS TestCode: CN_TS Units: mg/Kg Prep Date: 10/14/04 Run ID: LACHAT_041015C
Client ID: ZZZZZ Batch ID: 11389 TestNo: SW9012A Analysis Date: 10/15/04 SeqNo: 295915

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	9.837	0.25	10	0	98.4	90	110	0	0		

Sample ID TCNLCSDS1 101404 SampType: LCSD TestCode: CN_TS Units: mg/Kg Prep Date: 10/14/04 Run ID: LACHAT_041015C
Client ID: ZZZZZ Batch ID: 11389 TestNo: SW9012A Analysis Date: 10/15/04 SeqNo: 295918

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	10.15	0.25	10	0	101	90	110	9.837	3.13	20	

Sample ID 0410287-001BMS SampType: MS TestCode: CN_TS Units: mg/Kg Prep Date: 10/14/04 Run ID: LACHAT_041015C
Client ID: HAS-WC-GAC-1013 Batch ID: 11389 TestNo: SW9012A Analysis Date: 10/15/04 SeqNo: 295920

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	9.91	0.25	10	0	99.1	75	125	0	0		

Sample ID 0410287-001BMSD SampType: MSD TestCode: CN_TS Units: mg/Kg Prep Date: 10/14/04 Run ID: LACHAT_041015C
Client ID: HAS-WC-GAC-1013 Batch ID: 11389 TestNo: SW9012A Analysis Date: 10/15/04 SeqNo: 295921

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	9.679	0.25	10	0	96.8	75	125	9.91	2.35	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11390

Sample ID **ASTMBL** SampType: **MBLK** TestCode: **ASTM_CN** Units: **mg/L** Prep Date: **10/14/04** Run ID: **LACHAT_041015C**
Client ID: **ZZZZZ** Batch ID: **11390** TestNo: **D3987-85/SW** Analysis Date: **10/15/04** SeqNo: **295911**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.0050	0	0	0	0	0	0	0		*

Sample ID **0410287-001BMS** SampType: **MS** TestCode: **ASTM_CN** Units: **mg/L** Prep Date: **10/14/04** Run ID: **LACHAT_041015C**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11390** TestNo: **D3987-85/SW** Analysis Date: **10/15/04** SeqNo: **295909**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.2012	0.0050	0.25	0	80.5	75	125	0	0		*

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **ASTM_CN** Units: **mg/L** Prep Date: **10/14/04** Run ID: **LACHAT_041015C**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11390** TestNo: **D3987-85/SW** Analysis Date: **10/15/04** SeqNo: **295910**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.1955	0.0050	0.25	0	78.2	75	125	0.2012	2.90	20	*

Sample ID **TCNMBW1 101404** SampType: **MBLK** TestCode: **CN_TW** Units: **mg/L** Prep Date: **10/14/04** Run ID: **LACHAT_041015C**
Client ID: **ZZZZZ** Batch ID: **11390** TestNo: **SW9012A** Analysis Date: **10/15/04** SeqNo: **295906**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.0050									

Sample ID **TCNLCSW1 101404** SampType: **LCS** TestCode: **CN_TW** Units: **mg/L** Prep Date: **10/14/04** Run ID: **LACHAT_041015C**
Client ID: **ZZZZZ** Batch ID: **11390** TestNo: **SW9012A** Analysis Date: **10/15/04** SeqNo: **295907**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.2113	0.0050	0.2	0	106	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11399

Sample ID **RCNMBS1 101504** SampType: **MBLK** TestCode: **CN_SRXT** Units: **mg/Kg** Prep Date: **10/15/04** Run ID: **LACHAT_041015B**
Client ID: **ZZZZZ** Batch ID: **11399** TestNo: **SW7.3.3.2** Analysis Date: **10/15/04** SeqNo: **295758**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	ND	1.0									

Sample ID **RCNLCSS1 101504** SampType: **LCS** TestCode: **CN_SRXT** Units: **mg/Kg** Prep Date: **10/15/04** Run ID: **LACHAT_041015B**
Client ID: **ZZZZZ** Batch ID: **11399** TestNo: **SW7.3.3.2** Analysis Date: **10/15/04** SeqNo: **295759**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	10.53	1.0	10	0	105	50	150	0	0		

Sample ID **0410287-001BMS** SampType: **MS** TestCode: **CN_SRXT** Units: **mg/Kg** Prep Date: **10/15/04** Run ID: **LACHAT_041015B**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11399** TestNo: **SW7.3.3.2** Analysis Date: **10/15/04** SeqNo: **295761**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	5.764	1.0	10	0	57.6	40	120	0	0		

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **CN_SRXT** Units: **mg/Kg** Prep Date: **10/15/04** Run ID: **LACHAT_041015B**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11399** TestNo: **SW7.3.3.2** Analysis Date: **10/15/04** SeqNo: **295762**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	5.501	1.0	10	0	55	40	120	5.764	4.68	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11400

Sample ID **PHMBS1 101404** SampType: **MBLK** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/14/04** Run ID: **LACHAT_041017B**
Client ID: **ZZZZZ** Batch ID: **11400** TestNo: **SW9066** Analysis Date: **10/17/04** SeqNo: **296250**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.50	0	0	0	0	0	0	0		

Sample ID **PHLCSS1 101404** SampType: **LCS** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/14/04** Run ID: **LACHAT_041017B**
Client ID: **ZZZZZ** Batch ID: **11400** TestNo: **SW9066** Analysis Date: **10/17/04** SeqNo: **296251**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	4.501	0.50	5	0	90	80	120	0	0		

Sample ID **0410287-001BOMS** SampType: **MS** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/14/04** Run ID: **LACHAT_041017B**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11400** TestNo: **SW9066** Analysis Date: **10/17/04** SeqNo: **296253**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.7465	0.25	5	0.4381	6.17	75	125	0	0		S

Sample ID **0410287-001BMS** SampType: **MS** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/14/04** Run ID: **LACHAT_041017B**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11400** TestNo: **SW9066** Analysis Date: **10/17/04** SeqNo: **296263**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	4.904	2.5	25	0.5416	17.4	75	125	0	0		S

Sample ID **0410287-001BOMSD** SampType: **MSD** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/14/04** Run ID: **LACHAT_041017B**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11400** TestNo: **SW9066** Analysis Date: **10/17/04** SeqNo: **296254**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	0.7309	0.50	5	0.4381	5.86	75	125	0.7465	2.10	20	S

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/14/04** Run ID: **LACHAT_041017B**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11400** TestNo: **SW9066** Analysis Date: **10/17/04** SeqNo: **296264**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11400

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **PHENOLICS_** Units: mg/Kg Prep Date: **10/14/04** Run ID: **LACHAT_041017B**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11400** TestNo: **SW9066** Analysis Date: **10/17/04** SeqNo: **296264**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	4.914	2.5	25	0.5416	17.5	75	125	4.904	0.213	20	S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11402

Sample ID **ASTMBL** SampType: **MBLK** TestCode: **ASTM_NH4** Units: **mg/L** Prep Date: **10/15/04** Run ID: **LACHAT_041018A**
Client ID: **ZZZZZ** Batch ID: **11402** TestNo: **D3987-85/E35** Analysis Date: **10/18/04** SeqNo: **295933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	ND	0.050	0	0	0	0	0	0	0		*

Sample ID **0410287-001BMS** SampType: **MS** TestCode: **ASTM_NH4** Units: **mg/L** Prep Date: **10/15/04** Run ID: **LACHAT_041018A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11402** TestNo: **D3987-85/E35** Analysis Date: **10/18/04** SeqNo: **295931**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	2.291	0.050	2.5	0.2714	80.8	75	125	0	0		*

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **ASTM_NH4** Units: **mg/L** Prep Date: **10/15/04** Run ID: **LACHAT_041018A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11402** TestNo: **D3987-85/E35** Analysis Date: **10/18/04** SeqNo: **295932**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	2.288	0.050	2.5	0.2714	80.7	75	125	2.291	0.153	20	*

Sample ID **NH4MBW1 101504** SampType: **MBLK** TestCode: **NH4_W** Units: **mg/L** Prep Date: **10/15/04** Run ID: **LACHAT_041018A**
Client ID: **ZZZZZ** Batch ID: **11402** TestNo: **E350.1** Analysis Date: **10/18/04** SeqNo: **295928**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	ND	0.050									*

Sample ID **NH4LCSW1 101504** SampType: **LCS** TestCode: **NH4_W** Units: **mg/L** Prep Date: **10/15/04** Run ID: **LACHAT_041018A**
Client ID: **ZZZZZ** Batch ID: **11402** TestNo: **E350.1** Analysis Date: **10/18/04** SeqNo: **295929**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	2.206	0.050	2.5	0	88.3	80	120	0	0		*

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11434

Sample ID **PHMBS1 101804** SampType: **MBLK** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/18/04** Run ID: **LACHAT_041017B**
Client ID: **ZZZZZ** Batch ID: **11434** TestNo: **SW9066** Analysis Date: **10/18/04** SeqNo: **296273**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.50	0	0	0	0	0	0	0		

Sample ID **PHLCSS1 101804** SampType: **LCS** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/18/04** Run ID: **LACHAT_041017B**
Client ID: **ZZZZZ** Batch ID: **11434** TestNo: **SW9066** Analysis Date: **10/18/04** SeqNo: **296274**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	4.597	0.50	5	0	91.9	80	120	0	0		

Sample ID **0410287-001BMS** SampType: **MS** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/18/04** Run ID: **LACHAT_041017B**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11434** TestNo: **SW9066** Analysis Date: **10/18/04** SeqNo: **296276**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	9.9	5.0	50	3.385	13	75	125	0	0		S

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **PHENOLICS_** Units: **mg/Kg** Prep Date: **10/18/04** Run ID: **LACHAT_041017B**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11434** TestNo: **SW9066** Analysis Date: **10/18/04** SeqNo: **296277**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	10.4	5.0	50	3.385	14	75	125	9.9	4.89	20	S

Qualifiers:
ND - Not Detected at the Reporting Limit
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* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11471

Sample ID **RSMBS1 101904** SampType: **MBLK** TestCode: **SULF_RXT-S** Units: mg/Kg Prep Date: **10/19/04** Run ID: **LACHAT_041019A**
Client ID: **ZZZZZ** Batch ID: **11471** TestNo: **SW7.3.4.2** Analysis Date: **10/19/04** SeqNo: **297232**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	ND	10									

Sample ID **RSLCSS1 101904** SampType: **LCS** TestCode: **SULF_RXT-S** Units: mg/Kg Prep Date: **10/19/04** Run ID: **LACHAT_041019A**
Client ID: **ZZZZZ** Batch ID: **11471** TestNo: **SW7.3.4.2** Analysis Date: **10/19/04** SeqNo: **297233**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	289.6	10	500	0	57.9	45	150	0	0		

Sample ID **0410164-001AMS** SampType: **MS** TestCode: **SULF_RXT-S** Units: mg/Kg Prep Date: **10/19/04** Run ID: **LACHAT_041019A**
Client ID: **ZZZZZ** Batch ID: **11471** TestNo: **SW7.3.4.2** Analysis Date: **10/19/04** SeqNo: **297235**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	289.8	10	500	0	58	40	120	0	0		H

Sample ID **0410287-001BMS** SampType: **MS** TestCode: **SULF_RXT-S** Units: mg/Kg Prep Date: **10/19/04** Run ID: **LACHAT_041019A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11471** TestNo: **SW7.3.4.2** Analysis Date: **10/19/04** SeqNo: **297238**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	38.96	10	500	0	7.79	40	120	0	0		S

Sample ID **0410164-001AMSD** SampType: **MSD** TestCode: **SULF_RXT-S** Units: mg/Kg Prep Date: **10/19/04** Run ID: **LACHAT_041019A**
Client ID: **ZZZZZ** Batch ID: **11471** TestNo: **SW7.3.4.2** Analysis Date: **10/19/04** SeqNo: **297236**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	250.6	10	500	0	50.1	40	120	289.8	14.5	30	H

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **SULF_RXT-S** Units: mg/Kg Prep Date: **10/19/04** Run ID: **LACHAT_041019A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11471** TestNo: **SW7.3.4.2** Analysis Date: **10/19/04** SeqNo: **297239**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 11471

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **SULF_RXT-S** Units: **mg/Kg** Prep Date: **10/19/04** Run ID: **LACHAT_041019A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **11471** TestNo: **SW7.3.4.2** Analysis Date: **10/19/04** SeqNo: **297239**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	5.628	10	500	0	1.13	40	120	38.96	0	30	JS

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R14808

Sample ID **0410287-001B DUP** SampType: **DUP** TestCode: **ASTM_PH** Units: **pH Units** Prep Date: **10/14/04** Run ID: **PH_041014A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **R14808** TestNo: **D3987-85/E15** Analysis Date: **10/14/04** SeqNo: **294866**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.71	0	0	0	0	0	0	7.66	0.651	20	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R14819

Sample ID **CODMBW1 101404** SampType: **MBLK** TestCode: **ASTM_COD** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SPEC_041014A**
Client ID: **ZZZZZ** Batch ID: **R14819** TestNo: **D3987-85/E41** Analysis Date: **10/15/04** SeqNo: **295173**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	ND	20									*

Sample ID **CODLCSW1 101404** SampType: **LCS** TestCode: **ASTM_COD** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SPEC_041014A**
Client ID: **ZZZZZ** Batch ID: **R14819** TestNo: **D3987-85/E41** Analysis Date: **10/15/04** SeqNo: **295174**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	505.8	20	500	0	101	80	120	0	0		*

Sample ID **0410287-001BMS** SampType: **MS** TestCode: **ASTM_COD** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SPEC_041014A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **R14819** TestNo: **D3987-85/E41** Analysis Date: **10/15/04** SeqNo: **295176**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	531	20	500	14.94	103	75	125	0	0		*

Sample ID **0410287-001BMSD** SampType: **MSD** TestCode: **ASTM_COD** Units: **mg/L** Prep Date: **10/14/04** Run ID: **SPEC_041014A**
Client ID: **HAS-WC-GAC-1013** Batch ID: **R14819** TestNo: **D3987-85/E41** Analysis Date: **10/15/04** SeqNo: **295177**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	528.5	20	500	14.94	103	75	125	531	0.475	20	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0410287
Project: 29168, Peoples Gas- Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R14841

Sample ID **MBLK** SampType: **MBLK** TestCode: **ASTM_OG** Units: **mg/L** Prep Date: **10/15/04** Run ID: **BALANCE_041015A**
Client ID: **ZZZZZ** Batch ID: **R14841** TestNo: **D3987-85/E16** Analysis Date: **10/18/04** SeqNo: **295854**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease	1	5.0									J*

Sample ID **MBLK** SampType: **MBLK** TestCode: **OG_W** Units: **mg/L** Prep Date: **10/15/04** Run ID: **BALANCE_041015A**
Client ID: **ZZZZZ** Batch ID: **R14841** TestNo: **E1664** Analysis Date: **10/18/04** SeqNo: **295847**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	ND	5.0									*

Sample ID **LCS** SampType: **LCS** TestCode: **OG_W** Units: **mg/L** Prep Date: **10/15/04** Run ID: **BALANCE_041015A**
Client ID: **ZZZZZ** Batch ID: **R14841** TestNo: **E1664** Analysis Date: **10/18/04** SeqNo: **295848**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	66	5.0	80	0	82.5	78	114	0	0		*

Sample ID **LCSD** SampType: **LCSD** TestCode: **OG_W** Units: **mg/L** Prep Date: **10/15/04** Run ID: **BALANCE_041015A**
Client ID: **ZZZZZ** Batch ID: **R14841** TestNo: **E1664** Analysis Date: **10/18/04** SeqNo: **295849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	68.4	5.0	80	0	85.5	78	114	66	3.57	20	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

LABORATORY ACCREDITATION

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY
NELAP - RECOGNIZED
ENVIRONMENTAL LABORATORY ACCREDITATION

is hereby granted to

STAT ANALYSIS CORPORATION

2201 WEST CAMPBELL PARK DRIVE

CHICAGO, IL 60612-3547

NELAP ACCREDITED
ACCREDITATION NUMBER #100445

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part 186 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part 186. Please contact the Illinois EPA Environmental Laboratory Accreditation Program (IL ELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Illinois is not an endorsement or a guarantee of validity of the data generated by the laboratory.

Jeff Johnston
Manager
Division of Laboratories

Janet Cruse
Accreditation Officer
Environmental Laboratory Accreditation Program

Certificate No.: 001115
Expiration Date: 09/30/2005
Issued On: 09/27/2004

State of Illinois
Environmental Protection Agency

Certificate No.: 001115

Awards the Certificate of Approval

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part 186 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part 186. Please contact the Illinois EPA Environmental Laboratory Accreditation Program (IL ELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Illinois is not an endorsement or a guarantee of validity of the data generated by the laboratory.

Hazardous and Solid Waste, Inorganic

1010

Ignitability

1311

TCLP (Organic and Inorganic)

1312

Synthetic Precipitation Leaching Procedure

6020

Aluminum	Antimony	Arsenic
Barium	Beryllium	Boron
Cadmium	Calcium	Chromium
Cobalt	Copper	Iron
Lead	Magnesium	Manganese
Nickel	Potassium	Selenium
Silver	Sodium	Thallium
Vanadium	Zinc	

7196A

Chromium VI

7470A

Mercury

7471A

Mercury

9012A

Cyanide

9040B

Hydrogen Ion (pH)

9045C

Hydrogen Ion (pH)

9066

Phenolics

9095A

Paint Filter

Chapter 7/9014

Reactive Cyanide

Chapter 7/9034

Reactive Sulfide

State of Illinois
Environmental Protection Agency
Awards the Certificate of Approval

Certificate No.: 001115

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

Hazardous and Solid Waste, Organic

8015B

Diesel range organics (DRO)
Gasoline range organics (GRO)

8081A

4,4'-DDD
4,4'-DDE
4,4'-DDT
Aldrin
alpha-BHC
alpha-Chlordane
beta-BHC
Chlordane - not otherwise specified
delta-BHC
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Endrin ketone
gamma-BHC (Lindane)
gamma-Chlordane
Heptachlor
Heptachlor epoxide
Methoxychlor
Toxaphene

8082

PCB-1016
PCB-1221
PCB-1232
PCB-1242
PCB-1248
PCB-1254
PCB-1260

8260B

1,1,1,2-Tetrachloroethane
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,1-Dichloropropene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (EDB)
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
1,4-Dioxane
2,2-Dichloropropane
2-Butanone (Methyl ethyl ketone, MEK)
2-Chloroethyl vinyl ether
2-Chlorotoluene
2-Hexanone
2-Methyl-1-propanol (Isobutyl alcohol)
2-Nitropropane
2-Propanol (Isopropyl alcohol)
4-Chlorotoluene
4-Methyl-2-pentanone (Methyl isobutyl ketone, I
Acetone
Acrolein (Propenal)
Acrylonitrile
Benzene
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chlorodibromomethane (Dibromochloromethan
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromomethane
Dichlorodifluoromethane
Dichloromethane (Methylene chloride)
Diethyl ether
Ethyl acetate
Ethyl ether
Ethylbenzene
Hexachlorobutadiene
Isopropylbenzene
Methyl ethyl ketone
Methyl isobutyl ketone
Methyl-t-butyl ether
m-Xylene
Naphthalene
n-Butanol
n-Butylbenzene
o-Xylene
p-Isopropyltoluene
p-Xylene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Trichlorofluoromethane
Vinyl acetate
Vinyl chloride
Xylenes (Total)

8270C

1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,2-Diphenylhydrazine

State of Illinois
Environmental Protection Agency

Certificate No.: 001115

Awards the Certificate of Approval

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

Hazardous and Solid Waste, Organic

8270C

1,4-Dichlorobenzene
1,4-Dinitrobenzene
1,3-Dichlorobenzene
2,3,4,6-Tetrachlorophenol
2,4,5-Trichlorophenol
1-Methylnaphthalene
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4,6-Trichlorophenol
2,4-Dinitrotoluene (2,4-DNT)
2,6-Dinitrotoluene (2,6-DNT)
2,4-Dinitrophenol
2-Chlorophenol
2-Methylnaphthalene
2-Chloronaphthalene
2-Nitroaniline
2-Nitrophenol
2-Methylphenol
3-Nitroaniline
4,6-Dinitro-2-methylphenol
3,3'-Dichlorobenzidine
4-Chloro-3-methylphenol
4-Chloroaniline
4-Bromophenyl phenyl ether
4-Methylphenol
4-Nitroaniline
4-Chlorophenyl phenyl ether
Acenaphthene
Acenaphthylene
4-Nitrophenol
Anthracene
Benzidine
Aniline
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(a)anthracene
Benzo(k)fluoranthene
Benzoic acid
Benzo(g,h,i)perlyene
Bis(2-chloroethoxy) methane
Bis(2-chloroethyl) ether
Benzyl alcohol
Bis(2-ethylhexyl) phthalate
Butyl benzyl phthalate
Bis(2-chloroisopropyl) ether
Chrysene
Dibenz(a,h)anthracene
Carbazole
Diethyl phthalate
Dimethyl phthalate
Dibenzofuran
Di-n-octyl phthalate
Diphenylamine
Di-n-butyl phthalate
Fluorene
Hexachlorobenzene
Fluoranthene
Hexachlorocyclopentadiene
Hexachloroethane
Hexachlorobutadiene
Isophorone
m-Cresol (3-Methylphenol)
Indeno(1,2,3-cd) pyrene
Nitrobenzene
N-Nitrosodimethylamine
Naphthalene
N-Nitrosodiphenylamine
o-Cresol (2-Methylphenol)
N-Nitrosodi-n-propylamine
Pentachlorophenol
Phenanthrene
p-Cresol (4-Methylphenol)
Pyrene
Pyridine
Phenol

8321A

2,4,5-T
2,4,5-TP (Silvex)
2,4-D
2,4-DB
Dalapon
Dicamba
Dichlorprop
Dinoseb
MCPA
MCPP

MANIFEST

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.)

In case of a spill call the Illinois Office of Emergency Response at 217/782-7000 and the National Response Center

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Light & Coke
130 E Randolph Drive
Chicago IL 60601

Location If Different
Hawthorne Station
1729 N Kingsbury St
Chicago IL 60614

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS

A. Illinois Manifest Document Number: IL11324995 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: 0204

D. Transporter's Phone (630) 529-0240

E. Transporter's ID Number:

F. Transporter's Phone ( )

G. Facility's IL ID Number: 0 3 1 0 3 9 0 0 0

H. Facility's Phone (773 646-3099

5. Transporter 1 Company Name: North Branch Environmental | 6. US EPA ID Number:

7. Transporter 2 Company Name: | 8. US EPA ID Number:

9. Designated Facility Name and Site Address
CID RDF # 4
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number:

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT activated carbon	0 0 1	DM	0 8		EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1809

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Alison Millerick | Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL) | Date: Month 11 Day 12 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: TERRY PUTTER | Signature: [signature] | Date: Month 11 Day 12 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: | Signature: | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.
Printed/Typed Name: Patricia Aguilera | Signature: [signature] | Date: Month 11 Day 12 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

APPENDIX K
ANALYTICAL RESULTS FOR SVE LIQUID SAMPLES
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

March 22, 2004

Joan Gonzalez
Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0403100

Dear Joan Gonzalez:

STAT Analysis received 1 sample for the referenced project on 3/15/2004. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: March 22, 2004

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0403100

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0403100-001A	HAS-MWRD-001		3/15/2004 8:10:00 AM	3/15/2004
0403100-001B	HAS-MWRD-001		3/15/2004 8:10:00 AM	3/15/2004
0403100-001C	HAS-MWRD-001		3/15/2004 8:10:00 AM	3/15/2004
0403100-001D	HAS-MWRD-001		3/15/2004 8:10:00 AM	3/15/2004
0403100-001E	HAS-MWRD-001		3/15/2004 8:10:00 AM	3/15/2004
0403100-001F	HAS-MWRD-001		3/15/2004 8:10:00 AM	3/15/2004

STAT Analysis Corporation

Date: *March 22, 2004*

CLIENT:	Burns & McDonnell
Project:	29168, Peoples Gas-Hawthorne Regulator Statio
Lab Order:	0403100

CASE NARRATIVE

The following statements apply to sample HAS-MWRD-001 (0403100-001):

The Laboratory Control Sample (LCS) exceeded the upper control limit for antimony in preparation batch 8867. Antimony results may be biased high.

The analytical results for acetone may be biased high due to high recovery on the LCS/LCSD.

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Date Reported: March 22, 2004
Date Printed: March 22, 2004

Client: Burns & McDonnell
Lab Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0403100-001

Client Sample ID: HAS-MWRD-001
Collection Date: 3/15/2004 8:10:00 AM
Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PCBs	**SW8082**			Prep Date: **3/16/2004**		Analyst: **ERP**
Aroclor 1016	ND	0.0005		mg/L	1	3/16/2004
Aroclor 1221	ND	0.0005		mg/L	1	3/16/2004
Aroclor 1232	ND	0.0005		mg/L	1	3/16/2004
Aroclor 1242	ND	0.0005		mg/L	1	3/16/2004
Aroclor 1248	ND	0.0005		mg/L	1	3/16/2004
Aroclor 1254	ND	0.0005		mg/L	1	3/16/2004
Aroclor 1260	ND	0.0005		mg/L	1	3/16/2004
Pesticides	**SW8081**			Prep Date: **3/16/2004**		Analyst: **ERP**
4,4'-DDD	ND	0.0001		mg/L	1	3/16/2004
4,4'-DDE	ND	0.0001		mg/L	1	3/16/2004
4,4'-DDT	ND	0.0001		mg/L	1	3/16/2004
Aldrin	ND	0.00005		mg/L	1	3/16/2004
alpha-BHC	ND	0.00005		mg/L	1	3/16/2004
alpha-Chlordane	ND	0.00005		mg/L	1	3/16/2004
beta-BHC	ND	0.00005		mg/L	1	3/16/2004
Chlordane	ND	0.0005		mg/L	1	3/16/2004
delta-BHC	ND	0.00005		mg/L	1	3/16/2004
Dieldrin	ND	0.0001		mg/L	1	3/16/2004
Endosulfan I	ND	0.00005		mg/L	1	3/16/2004
Endosulfan II	ND	0.0001		mg/L	1	3/16/2004
Endosulfan sulfate	ND	0.0001		mg/L	1	3/16/2004
Endrin	ND	0.0001		mg/L	1	3/16/2004
Endrin aldehyde	ND	0.0001		mg/L	1	3/16/2004
Endrin ketone	ND	0.0001		mg/L	1	3/16/2004
gamma-BHC	ND	0.00005		mg/L	1	3/16/2004
gamma-Chlordane	ND	0.00005		mg/L	1	3/16/2004
Heptachlor	ND	0.00005		mg/L	1	3/16/2004
Heptachlor epoxide	ND	0.00005		mg/L	1	3/16/2004
Methoxychlor	ND	0.0005		mg/L	1	3/16/2004
Toxaphene	ND	0.001		mg/L	1	3/16/2004
Total Petroleum Hydrocarbons in Water	**SW8015M**			Prep Date: **3/18/2004**		Analyst: **JF**
TPH (Gasoline)	0.52	0.1	*	mg/L	1	3/18/2004
TPH (Diesel)	0.82	0.1	*	mg/L	1	3/18/2004
TPH (Oil)	0.26	0.1	*	mg/L	1	3/18/2004
Mercury	**SW7470A**			Prep Date: **3/16/2004**		Analyst: **JG**
Mercury	ND	0.00025		mg/L	1	3/16/2004

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Date Reported: March 22, 2004
Date Printed: March 22, 2004

Client: Burns & McDonnell
Lab Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0403100-001

Client Sample ID: HAS-MWRD-001
Collection Date: 3/15/2004 8:10:00 AM
Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020**			Prep Date: **3/15/2004**		Analyst: **BJA**
Antimony	ND	0.006		mg/L	2	3/17/2004
Arsenic	ND	0.004		mg/L	2	3/15/2004
Beryllium	ND	0.002		mg/L	2	3/15/2004
Cadmium	ND	0.002		mg/L	2	3/15/2004
Chromium	ND	0.004		mg/L	2	3/15/2004
Copper	ND	0.01		mg/L	2	3/15/2004
Iron	0.49	0.1		mg/L	2	3/15/2004
Lead	ND	0.002		mg/L	2	3/15/2004
Nickel	ND	0.008		mg/L	2	3/15/2004
Selenium	ND	0.004		mg/L	2	3/15/2004
Silver	ND	0.004		mg/L	2	3/15/2004
Thallium	ND	0.004		mg/L	2	3/15/2004
Zinc	ND	0.02		mg/L	2	3/15/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C**			Prep Date: **3/15/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.01		mg/L	1	3/18/2004
1,2-Dichlorobenzene	ND	0.01		mg/L	1	3/18/2004
1,3-Dichlorobenzene	ND	0.01		mg/L	1	3/18/2004
1,4-Dichlorobenzene	ND	0.01		mg/L	1	3/18/2004
2, 2'-oxybis(1-Chloropropane)	ND	0.01		mg/L	1	3/18/2004
2,4,5-Trichlorophenol	ND	0.025		mg/L	1	3/18/2004
2,4,6-Trichlorophenol	ND	0.01		mg/L	1	3/18/2004
2,4-Dichlorophenol	ND	0.01		mg/L	1	3/18/2004
2,4-Dimethylphenol	ND	0.01		mg/L	1	3/18/2004
2,4-Dinitrophenol	ND	0.025		mg/L	1	3/18/2004
2,4-Dinitrotoluene	ND	0.01		mg/L	1	3/18/2004
2,6-Dinitrotoluene	ND	0.01		mg/L	1	3/18/2004
2-Chloronaphthalene	ND	0.01		mg/L	1	3/18/2004
2-Chlorophenol	ND	0.01		mg/L	1	3/18/2004
2-Methylnaphthalene	ND	0.01		mg/L	1	3/18/2004
2-Methylphenol	ND	0.01		mg/L	1	3/18/2004
2-Nitroaniline	ND	0.01		mg/L	1	3/18/2004
2-Nitrophenol	ND	0.01		mg/L	1	3/18/2004
3,3'-Dichlorobenzidine	ND	0.01		mg/L	1	3/18/2004
3-Nitroaniline	ND	0.025		mg/L	1	3/18/2004
4,6-Dinitro-2-methylphenol	ND	0.01		mg/L	1	3/18/2004
4-Bromophenyl phenyl ether	ND	0.01		mg/L	1	3/18/2004
4-Chloro-3-methylphenol	ND	0.01		mg/L	1	3/18/2004
4-Chloroaniline	ND	0.01		mg/L	1	3/18/2004

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Date Reported: March 22, 2004
Date Printed: March 22, 2004

Client: Burns & McDonnell
Lab Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0403100-001

Client Sample ID: HAS-MWRD-001
Collection Date: 3/15/2004 8:10:00 AM
Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C**			Prep Date: **3/15/2004**		Analyst: **JF**
4-Chlorophenyl phenyl ether	ND	0.01		mg/L	1	3/18/2004
4-Methylphenol	ND	0.01		mg/L	1	3/18/2004
4-Nitroaniline	ND	0.025		mg/L	1	3/18/2004
4-Nitrophenol	ND	0.025		mg/L	1	3/18/2004
Acenaphthene	ND	0.01		mg/L	1	3/18/2004
Acenaphthylene	ND	0.01		mg/L	1	3/18/2004
Anthracene	ND	0.01		mg/L	1	3/18/2004
Benz(a)anthracene	ND	0.01		mg/L	1	3/18/2004
Benzo(a)pyrene	ND	0.01		mg/L	1	3/18/2004
Benzo(b)fluoranthene	ND	0.01		mg/L	1	3/18/2004
Benzo(g,h,i)perylene	ND	0.01		mg/L	1	3/18/2004
Benzo(k)fluoranthene	ND	0.01		mg/L	1	3/18/2004
Bis(2-chloroethoxy)methane	ND	0.01		mg/L	1	3/18/2004
Bis(2-chloroethyl)ether	ND	0.01		mg/L	1	3/18/2004
Bis(2-chloroisopropyl)ether	ND	0.01		mg/L	1	3/18/2004
Bis(2-ethylhexyl)phthalate	ND	0.01		mg/L	1	3/18/2004
Butyl benzyl phthalate	ND	0.01		mg/L	1	3/18/2004
Carbazole	ND	0.01		mg/L	1	3/18/2004
Chrysene	ND	0.01		mg/L	1	3/18/2004
Di-n-butyl phthalate	ND	0.01		mg/L	1	3/18/2004
Di-n-octyl phthalate	ND	0.01		mg/L	1	3/18/2004
Dibenz(a,h)anthracene	ND	0.01		mg/L	1	3/18/2004
Dibenzofuran	ND	0.01		mg/L	1	3/18/2004
Diethyl phthalate	ND	0.01		mg/L	1	3/18/2004
Dimethyl phthalate	ND	0.01		mg/L	1	3/18/2004
Fluoranthene	ND	0.01		mg/L	1	3/18/2004
Fluorene	ND	0.01		mg/L	1	3/18/2004
Hexachlorobenzene	ND	0.01		mg/L	1	3/18/2004
Hexachlorobutadiene	ND	0.01		mg/L	1	3/18/2004
Hexachlorocyclopentadiene	ND	0.01		mg/L	1	3/18/2004
Hexachloroethane	ND	0.01		mg/L	1	3/18/2004
Indeno(1,2,3-cd)pyrene	ND	0.01		mg/L	1	3/18/2004
Isophorone	ND	0.01		mg/L	1	3/18/2004
N-Nitrosodi-n-propylamine	ND	0.01		mg/L	1	3/18/2004
N-Nitrosodiphenylamine	ND	0.01		mg/L	1	3/18/2004
Naphthalene	0.027	0.01		mg/L	1	3/18/2004
Nitrobenzene	ND	0.01		mg/L	1	3/18/2004
Pentachlorophenol	ND	0.025		mg/L	1	3/18/2004

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Date Reported: March 22, 2004
Date Printed: March 22, 2004

Client: Burns & McDonnell
Lab Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0403100-001

Client Sample ID: HAS-MWRD-001
Collection Date: 3/15/2004 8:10:00 AM
Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS		**SW8270C**		Prep Date: **3/15/2004**		Analyst: **JF**
Phenanthrene	ND	0.01		mg/L	1	3/18/2004
Phenol	0.018	0.01		mg/L	1	3/18/2004
Pyrene	ND	0.01		mg/L	1	3/18/2004
Volatile Organic Compounds by GC/MS		**SW8260B**		Prep Date:		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.005		mg/L	1	3/18/2004
1,1,2,2-Tetrachloroethane	ND	0.005		mg/L	1	3/18/2004
1,1,2-Trichloroethane	ND	0.005		mg/L	1	3/18/2004
1,1-Dichloroethane	ND	0.005		mg/L	1	3/18/2004
1,1-Dichloroethene	ND	0.005		mg/L	1	3/18/2004
1,2-Dibromoethane	ND	0.005		mg/L	1	3/18/2004
1,2-Dichloroethane	ND	0.005		mg/L	1	3/18/2004
1,2-Dichloropropane	ND	0.005		mg/L	1	3/18/2004
1,3,5-Trimethylbenzene	ND	0.005		mg/L	1	3/18/2004
1,3-Butadiene	ND	0.01	*	mg/L	1	3/18/2004
1,4-Dioxane	ND	0.1		mg/L	1	3/18/2004
1-Ethyl-2-methylbenzene	0.0061	0.005	*	mg/L	1	3/18/2004
2-Butanone	ND	0.01		mg/L	1	3/18/2004
2-Hexanone	ND	0.01		mg/L	1	3/18/2004
4-Methyl-2-pentanone	ND	0.01		mg/L	1	3/18/2004
Acetone	0.2	0.01		mg/L	1	3/18/2004
Acrolein	ND	0.05		mg/L	1	3/18/2004
Acrylonitrile	ND	0.005		mg/L	1	3/18/2004
Benzene	0.0065	0.005		mg/L	1	3/18/2004
Bromodichloromethane	ND	0.005		mg/L	1	3/18/2004
Bromoform	ND	0.005		mg/L	1	3/18/2004
Bromomethane	ND	0.01		mg/L	1	3/18/2004
Carbon disulfide	ND	0.005		mg/L	1	3/18/2004
Carbon tetrachloride	ND	0.005		mg/L	1	3/18/2004
Chlorobenzene	ND	0.005		mg/L	1	3/18/2004
Chloroethane	ND	0.01		mg/L	1	3/18/2004
Chloroform	ND	0.005		mg/L	1	3/18/2004
Chloromethane	ND	0.01		mg/L	1	3/18/2004
cis-1,2-Dichloroethene	ND	0.005		mg/L	1	3/18/2004
cis-1,3-Dichloropropene	ND	0.005		mg/L	1	3/18/2004
Dibromochloromethane	ND	0.005		mg/L	1	3/18/2004
Ethylbenzene	ND	0.005		mg/L	1	3/18/2004
m,p-Xylene	0.011	0.005		mg/L	1	3/18/2004
Methylene chloride	ND	0.01		mg/L	1	3/18/2004

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Date Reported: March 22, 2004
Date Printed: March 22, 2004

Client: Burns & McDonnell
Lab Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0403100-001

Client Sample ID: HAS-MWRD-001
Collection Date: 3/15/2004 8:10:00 AM
Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS		**SW8260B**		Prep Date:		Analyst: **PS**
o-Xylene	0.014	0.005		mg/L	1	3/18/2004
Styrene	ND	0.005		mg/L	1	3/18/2004
Tetrachloroethene	ND	0.005		mg/L	1	3/18/2004
Toluene	0.0051	0.005		mg/L	1	3/18/2004
trans-1,2-Dichloroethene	ND	0.005		mg/L	1	3/18/2004
trans-1,3-Dichloropropene	ND	0.005		mg/L	1	3/18/2004
Trichloroethene	ND	0.005		mg/L	1	3/18/2004
Vinyl chloride	ND	0.01		mg/L	1	3/18/2004
Cyanide, Total		**SW9012A**		Prep Date:	**3/17/2004**	Analyst: **YZ**
Cyanide	0.1	0.025		mg/L	1	3/18/2004
Oil and Grease		**E1664**		Prep Date:	**3/17/2004**	Analyst: **PMS**
Oil and Grease (HEM)	7.4	5	*	mg/L	1	3/18/2004
pH		**E150.1**		Prep Date:	**3/15/2004**	Analyst: **RW**
pH	7.9		*	pH units	1	3/15/2004

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: ~~(312) 733-0551~~ (312) 733-0551

Document Control No: HAS-002-2004
Lab. Reference No. or Episode No.: 0403100

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected		Sample Type / Matrix			Number of Containers	Parameter/Method Code							Remarks
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time	Liquid	Solid	Gas		MWRDGC SDA 202	NAPHTHALENE	TPH - DRO	TPH - GRO	TPH - MOTOR OIL	TPH AS DIESEL	TPH AS GASOLINE	
HAS	MWRD	001	–	–	–	–	3/15/04	0810	X			10	X	X	X	X	X	X	X	001

Sampler (signature): [signature]

Sampler (signature):

Custody Seal Number

Special Instructions: 5 DAY TAT.

Relinquished By (signature): [signature]
1.

Date/Time 3/15/04 1120

Received By (signature): [signature]

Date/Time 3/15/04 1120

Relinquished By (signature):
2.

Date/Time

Received By (signature):

Date/Time

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt: 4

Laboratory Comments:

STAT Analysis Corporation

Sample Receipt Checklist

Client Name **B&M**

Date and Time Received: **03/15/2004**

Work Order Numbe **0403100**

Received by CDF

Checklist completed b Signature 3/15/04 Date

Reviewed by Initials 3/15/04 Date

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 4 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☑	No ☐	

Adjusted? Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted Date contacted: Person contacted

Contacted by: Regarding

Comments:

Corrective Action

STAT Analysis Corporation

Date: 22-Mar-04

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8260B **Matrix:** W

Sample ID	BR4FBZ	BZMED8	DBFM	DCA12D4				
VLCS031804-1	100	99.2	98.5	98.9				
VLCSD031804-1	101	99.8	98.5	99.2				
VBLK031804-1	98.1	98.5	96.5	101				
0403100-001A	98.8	98.2	98.2	101				

Acronym		Surrogate	QC Limits
BR4FBZ	=	4-Bromofluorobenzene	86-115
BZMED8	=	Toluene-d8	88-110
DBFM	=	Dibromofluoromethane	86-118
DCA12D4	=	1,2-Dichloroethane-d4	80-120

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

Date: 22-Mar-04

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8270C **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
MB-8881-SVOC	76.3	64.3	73.6	87.7	68.5	81.4	71.3	79.0
LCS-8881-SVOC	76.5	66.5	77.3	92.3	68.5	79.7	76.2	88.0
LCSD-8881-SVOC	86.3	73.5	87.5	97.9	77.1	88.8	84.1	90.9
0403100-001B	68.2	54.1	65.2	93.6	61.1	74.2	65.6	92.4

Acronym		Surrogate	QC Limits
CLPH2D4	=	2-Chlorophenol-d4	33-110
DCBZ12D4	=	1,2-Dichlorobenzene-d4	16-110
NO2BZD5	=	Nitrobenzene-d5	35-114
PH246BR	=	2,4,6-Tribromophenol	10-123
PH2F	=	2-Fluorophenol	21-110
PHD5	=	Phenol-d5	10-110
PHEN2F	=	2-Fluorobiphenyl	43-116
PHEND14	=	4-Terphenyl-d14	33-141

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **3/15/2004 5:50:46 P**
Prep End Date:

Prep Batch **8881** Prep Code: **3520_SVOC** Technician: **VA**

Prep Factor Units: **mL / L**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0403100-001B	Water		1	0	0	1	1.000	3/15/2004	3/17/2004
LCS-8881-SVOC			1	0	0	1	1.000	3/15/2004	3/17/2004
LCSD-8881-SVOC			1	0	0	1	1.000	3/15/2004	3/17/2004
MB-8881-SVOC			1	0	0	1	1.000	3/15/2004	3/17/2004

STAT Analysis Corporation

Date: 22-Mar-04

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8081 **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
MB-8874-PP	75.0	58.0						
LCS-8874-PEST	108	58.0						
LCSD-8874-PEST	78.0	59.0						
0403100-001B	72.0	93.0						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

Date: 22-Mar-04

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8082 **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
MB-8874-PP	82.0	74.0						
LCS-8874-PCB	96.0	85.0						
LCSD-8874-PCB	93.0	84.0						
0403100-001B	81.0	90.0						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **3/16/2004 5:43:00 P**
Prep End Date:

Prep Batch **8874** Prep Code: **3510_PP** Technician: **VA**

Prep Factor Units:
mL / L

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0403100-001B	Water		1	0	0	10	10.000	3/16/2004	3/16/2004
LCS-8874-PCB			1	0	0	10	10.000	3/16/2004	3/16/2004
LCS-8874-PEST			1	0	0	10	10.000	3/16/2004	3/16/2004
LCSD-8874-PCB			1	0	0	10	10.000	3/16/2004	3/16/2004
LCSD-8874-PEST			1	0	0	10	10.000	3/16/2004	3/16/2004
MB-8874-PP			1	0	0	10	10.000	3/16/2004	3/16/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **3/18/2004 2:47:23 P**
Prep End Date:

Prep Batch **8892** Prep Code: **3510_TPH** Technician: **VA**

Prep Factor Units: **mL / L**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
MB-8892-TPH			1	0	0	1	1.000	3/18/2004	3/18/2004
LCS-8892-TPH			1	0	0	1	1.000	3/18/2004	3/18/2004
LCSD-8892-TPH			1	0	0	1	1.000	3/18/2004	3/18/2004
0403100-001B	Water		1	0	0	1	1.000	3/18/2004	3/18/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **3/16/2004 7:40:00 A**
Prep End Date: **3/16/2004 12:35:00**

Prep Batch **8867** Prep Code: **M_W_PREP** Technician: **DGI**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0403079-001A	Soil		50	0	0	50	1.000	3/16/2004	3/16/2004
0403091-001A	Soil		50	0	0	50	1.000	3/16/2004	3/16/2004
0403091-001AMS	Soil		50	0	0	50	1.000	3/16/2004	3/16/2004
0403095-002A	Soil		50	0	0	50	1.000	3/15/2004	3/15/2004
0403095-004A	Soil		50	0	0	50	1.000	3/15/2004	3/15/2004
0403095-004AMS	Soil		50	0	0	50	1.000	3/15/2004	3/15/2004
0403095-004AMSD	Soil		50	0	0	50	1.000	3/15/2004	3/15/2004
0403100-001C	Water		50	0	0	50	1.000	3/15/2004	3/15/2004
0403102-001A	Water		50	0	0	50	1.000	3/15/2004	3/15/2004
0403102-002A	Water		50	0	0	50	1.000	3/15/2004	3/15/2004
0403103-001A	Water		50	0	0	50	1.000	3/15/2004	3/15/2004
ILCSW1 3/15/04			50	0	0	50	1.000	3/15/2004	3/15/2004
IMBSPLP 3/14/04			50	0	0	50	1.000	3/15/2004	3/15/2004
IMBTCLP1 3/15/04			50	0	0	50	1.000	3/16/2004	3/16/2004
IMBW1 3/15/04			50	0	0	50	1.000	3/15/2004	3/15/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **3/16/2004 9:00:00 A**
Prep End Date: **3/16/2004 11:00:00**

Prep Factor Units: **mL /**

Prep Batch **8872** Prep Code: **M_HG_W_PR** Technician: **PMS**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0403078-012B	Soil		30	0	0	30	1.000	3/15/2004	3/15/2004
0403078-013A	Soil		30	0	0	30	1.000	3/15/2004	3/15/2004
0403078-013AMS	Soil		30	0	0	30	1.000	3/15/2004	3/15/2004
0403078-013AMSD	Soil		30	0	0	30	1.000	3/15/2004	3/15/2004
0403079-001A	Soil		30	0	0	30	1.000	3/16/2004	3/16/2004
0403079-001AMS	Soil		30	0	0	30	1.000	3/16/2004	3/16/2004
0403100-001C	Water		30	0	0	30	1.000	3/16/2004	3/16/2004
0403102-002A	Water		1	0	0	30	30.000	3/16/2004	3/16/2004
HGLCSW1 3/15/04			30	0	0	30	1.000	3/15/2004	3/15/2004
HGMBTCLP1 3/10/04			30	0	0	30	1.000	3/15/2004	3/15/2004
HGMBTCLP1 3/15/04			30	0	0	30	1.000	3/16/2004	3/16/2004
HGMBW1 3/15/04			30	0	0	30	1.000	3/15/2004	3/15/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **3/17/2004 4:00:00 P**
Prep End Date: **3/17/2004 5:45:00 P**

Prep Batch **8888** Prep Code: **TCNPREP_W** Technician: **YZ**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
TCNMBW1 031704			50	0	0	50	1.000	3/17/2004	3/17/2004
TCNLCSW1 031704			50	0	0	50	1.000	3/17/2004	3/17/2004
0403100-001D	Water		10	0	0	50	5.000	3/17/2004	3/17/2004
0403100-001DMS	Water		10	0	0	50	5.000	3/17/2004	3/17/2004
0403100-001DMSD	Water		10	0	0	50	5.000	3/17/2004	3/17/2004

STAT Analysis Corporation Date: *March 22, 2004*

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8874

Sample ID **MB-8874-PP** SampType: **MBLK** TestCode: **PCB_WATER** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **GC-ECD_040316B**
Client ID: **ZZZZZ** Batch ID: **8874** TestNo: **SW8082** Analysis Date: **3/16/2004** SeqNo: **218796**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.00050									
Aroclor 1221	ND	0.00050									
Aroclor 1232	ND	0.00050									
Aroclor 1242	ND	0.00050									
Aroclor 1248	ND	0.00050									
Aroclor 1254	ND	0.00050									
Aroclor 1260	ND	0.00050									

Sample ID **LCS-8874-PCB** SampType: **LCS** TestCode: **PCB_WATER** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **GC-ECD_040316B**
Client ID: **ZZZZZ** Batch ID: **8874** TestNo: **SW8082** Analysis Date: **3/16/2004** SeqNo: **218797**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.00901	0.00050	0.01	0	90.1	30	150	0	0		
Aroclor 1260	0.009912	0.00050	0.01	0	99.1	30	150	0	0		

Sample ID **LCSD-8874-PCB** SampType: **LCSD** TestCode: **PCB_WATER** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **GC-ECD_040316B**
Client ID: **ZZZZZ** Batch ID: **8874** TestNo: **SW8082** Analysis Date: **3/16/2004** SeqNo: **218798**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.009094	0.00050	0.01	0	90.9	30	150	0.00901	0.928	25	
Aroclor 1260	0.01012	0.00050	0.01	0	101	30	150	0.009912	2.06	25	

Sample ID **MB-8874-PP** SampType: **MBLK** TestCode: **Pest_WATER** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **GC-ECD_040316B**
Client ID: **ZZZZZ** Batch ID: **8874** TestNo: **SW8081** Analysis Date: **3/16/2004** SeqNo: **218786**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.00010									
4,4'-DDE	ND	0.00010									
4,4'-DDT	ND	0.00010									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8874

Sample ID **MB-8874-PP** SampType: **MBLK** TestCode: **Pest_WATER** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **GC-ECD_040316B**
Client ID: **ZZZZZ** Batch ID: **8874** TestNo: **SW8081** Analysis Date: **3/16/2004** SeqNo: **218786**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	ND	0.000050									
alpha-BHC	ND	0.000050									
alpha-Chlordane	ND	0.000050									
beta-BHC	ND	0.000050									
Chlordane	ND	0.00050									
delta-BHC	ND	0.000050									
Dieldrin	ND	0.00010									
Endosulfan I	ND	0.000050									
Endosulfan II	ND	0.00010									
Endosulfan sulfate	ND	0.00010									
Endrin	ND	0.00010									
Endrin aldehyde	ND	0.00010									
Endrin ketone	ND	0.00010									
gamma-BHC	ND	0.000050									
gamma-Chlordane	ND	0.000050									
Heptachlor	ND	0.000050									
Heptachlor epoxide	ND	0.000050									
Methoxychlor	ND	0.00050									
Toxaphene	ND	0.0010									

Sample ID **LCS-8874-PEST** SampType: **LCS** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **GC-ECD_040316B**
Client ID: **ZZZZZ** Batch ID: **8874** TestNo: **SW8081** Analysis Date: **3/16/2004** SeqNo: **218787**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.00019	0.00010	0.00025	0	76	30	150	0	0		
4,4'-DDE	0.00018	0.00010	0.00025	0	72	30	150	0	0		
4,4'-DDT	0.0002	0.00010	0.00025	0	80	30	150	0	0		
Aldrin	0.00016	0.000050	0.00025	0	64	30	150	0	0		
alpha-BHC	0.00019	0.000050	0.00025	0	76	30	150	0	0		
alpha-Chlordane	0.00019	0.000050	0.00025	0	76	30	150	0	0		
beta-BHC	0.0002	0.000050	0.00025	0	80	30	150	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8874

Sample ID **LCS-8874-PEST** SampType: **LCS** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **GC-ECD_040316B**
Client ID: **ZZZZZ** Batch ID: **8874** TestNo: **SW8081** Analysis Date: **3/16/2004** SeqNo: **218787**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
delta-BHC	0.00026	0.000050	0.00025	0	104	30	150	0	0		
Dieldrin	0.00021	0.00010	0.00025	0	84	30	150	0	0		
Endosulfan I	0.00019	0.000050	0.00025	0	76	30	150	0	0		
Endosulfan II	0.00022	0.00010	0.00025	0	88	30	150	0	0		
Endosulfan sulfate	0.00031	0.00010	0.00025	0	124	30	150	0	0		
Endrin	0.00023	0.00010	0.00025	0	92	30	150	0	0		
Endrin aldehyde	0.00018	0.00010	0.00025	0	72	30	150	0	0		
Endrin ketone	0.00032	0.00010	0.00025	0	128	30	150	0	0		
gamma-BHC	0.00021	0.000050	0.00025	0	84	30	150	0	0		
gamma-Chlordane	0.00018	0.000050	0.00025	0	72	30	150	0	0		
Heptachlor	0.00017	0.000050	0.00025	0	68	30	150	0	0		
Heptachlor epoxide	0.00019	0.000050	0.00025	0	76	30	150	0	0		
Methoxychlor	0.0002	0.00050	0.00025	0	80	30	150	0	0		J

Sample ID **LCSD-8874-PEST** SampType: **LCSD** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **GC-ECD_040316B**
Client ID: **ZZZZZ** Batch ID: **8874** TestNo: **SW8081** Analysis Date: **3/16/2004** SeqNo: **218788**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.0002	0.00010	0.00025	0	80	30	150	0.00019	5.13	25	
4,4'-DDE	0.00018	0.00010	0.00025	0	72	30	150	0.00018	0	25	
4,4'-DDT	0.0002	0.00010	0.00025	0	80	30	150	0.0002	0	25	
Aldrin	0.00016	0.000050	0.00025	0	64	30	150	0.00016	0	25	
alpha-BHC	0.00019	0.000050	0.00025	0	76	30	150	0.00019	0	25	
alpha-Chlordane	0.00019	0.000050	0.00025	0	76	30	150	0.00019	0	25	
beta-BHC	0.0002	0.000050	0.00025	0	80	30	150	0.0002	0	25	
delta-BHC	0.00026	0.000050	0.00025	0	104	30	150	0.00026	0	25	
Dieldrin	0.00021	0.00010	0.00025	0	84	30	150	0.00021	0	25	
Endosulfan I	0.0002	0.000050	0.00025	0	80	30	150	0.00019	5.13	25	
Endosulfan II	0.00023	0.00010	0.00025	0	92	30	150	0.00022	4.44	25	
Endosulfan sulfate	0.00031	0.00010	0.00025	0	124	30	150	0.00031	0	25	
Endrin	0.00024	0.00010	0.00025	0	96	30	150	0.00023	4.26	25	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8874

Sample ID **LCSD-8874-PEST** SampType: **LCSD** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **GC-ECD_040316B**
Client ID: **ZZZZZ** Batch ID: **8874** TestNo: **SW8081** Analysis Date: **3/16/2004** SeqNo: **218788**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Endrin aldehyde	0.00018	0.00010	0.00025	0	72	30	150	0.00018	0	25	
Endrin ketone	0.00034	0.00010	0.00025	0	136	30	150	0.00032	6.06	25	
gamma-BHC	0.00021	0.000050	0.00025	0	84	30	150	0.00021	0	25	
gamma-Chlordane	0.00018	0.000050	0.00025	0	72	30	150	0.00018	0	25	
Heptachlor	0.00018	0.000050	0.00025	0	72	30	150	0.00017	5.71	25	
Heptachlor epoxide	0.00019	0.000050	0.00025	0	76	30	150	0.00019	0	25	
Methoxychlor	0.0002	0.00050	0.00025	0	80	30	150	0.0002	0	25	J

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8892

Sample ID **MB-8892-TPH** SampType: **MBLK** TestCode: **TPH_W** Units: **mg/L** Prep Date: **3/18/2004** Run ID: **GC-FID_040318A**
Client ID: **ZZZZZ** Batch ID: **8892** TestNo: **SW8015M** Analysis Date: **3/18/2004** SeqNo: **219101**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	0.03113	0.10									J*
TPH (Diesel)	0.01992	0.10									J*
TPH (Oil)	0.04384	0.10									J*

Sample ID **LCS-8892-TPH** SampType: **LCS** TestCode: **TPH_W** Units: **mg/L** Prep Date: **3/18/2004** Run ID: **GC-FID_040318A**
Client ID: **ZZZZZ** Batch ID: **8892** TestNo: **SW8015M** Analysis Date: **3/18/2004** SeqNo: **219102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.6166	0.10	1	0.01992	59.7	30	140	0	0		*

Sample ID **LCSD-8892-TPH** SampType: **LCSD** TestCode: **TPH_W** Units: **mg/L** Prep Date: **3/18/2004** Run ID: **GC-FID_040318A**
Client ID: **ZZZZZ** Batch ID: **8892** TestNo: **SW8015M** Analysis Date: **3/18/2004** SeqNo: **219103**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.694	0.10	1	0.01992	67.4	30	140	0.6166	11.8	25	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8867

Sample ID **0403095-004AMS** SampType: **MS** TestCode: **M_ICPMS_S** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS-2_040315A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW1312/6020** Analysis Date: **3/15/2004** SeqNo: **218420**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4833	0.0040	0.5	0	96.7	80	120	0	0		
Beryllium	0.4835	0.0020	0.5	0	96.7	80	120	0	0		
Cadmium	0.4497	0.0020	0.5	0	89.9	80	120	0	0		
Chromium	0.4897	0.0040	0.5	0.00729	96.5	80	120	0	0		
Copper	0.4877	0.010	0.5	0.0056	96.4	80	120	0	0		
Iron	5.018	0.10	2	3.025	99.7	80	120	0	0		
Lead	0.4964	0.0020	0.5	0.00224	98.8	80	120	0	0		
Nickel	0.4764	0.0080	0.5	0	95.3	80	120	0	0		
Selenium	0.4654	0.0040	0.5	0	93.1	80	120	0	0		
Silver	0.1959	0.0040	0.2	0	98	80	120	0	0		
Thallium	0.4807	0.0040	0.5	0	96.1	80	120	0	0		
Zinc	0.4221	0.020	0.5	0.00925	82.6	80	120	0	0		

Sample ID **0403095-004AMS** SampType: **MS** TestCode: **M_ICPMS_S** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS_040417A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW1312/6020** Analysis Date: **3/17/2004** SeqNo: **218843**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.6165	0.0060	0.5	0	123	80	120	0	0		S

Sample ID **0403095-004AMSD** SampType: **MSD** TestCode: **M_ICPMS_S** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS-2_040315A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW1312/6020** Analysis Date: **3/15/2004** SeqNo: **218421**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4881	0.0040	0.5	0	97.6	80	120	0.4833	0.988	20	
Beryllium	0.4909	0.0020	0.5	0	98.2	80	120	0.4835	1.52	20	
Cadmium	0.4558	0.0020	0.5	0	91.2	80	120	0.4497	1.35	20	
Chromium	0.4856	0.0040	0.5	0.00729	95.7	80	120	0.4897	0.841	20	
Copper	0.4873	0.010	0.5	0.0056	96.3	80	120	0.4877	0.0821	20	
Iron	5.02	0.10	2	3.025	99.8	80	120	5.018	0.0398	20	
Lead	0.4949	0.0020	0.5	0.00224	98.5	80	120	0.4964	0.303	20	
Nickel	0.4746	0.0080	0.5	0	94.9	80	120	0.4764	0.379	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8867

Sample ID **0403095-004AMSD** SampType: **MSD** TestCode: **M_ICPMS_S** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS-2_040315A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW1312/6020** Analysis Date: **3/15/2004** SeqNo: **218421**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.473	0.0040	0.5	0	94.6	80	120	0.4654	1.62	20	
Silver	0.1983	0.0040	0.2	0	99.2	80	120	0.1959	1.22	20	
Thallium	0.4817	0.0040	0.5	0	96.3	80	120	0.4807	0.208	20	
Zinc	0.4244	0.020	0.5	0.00925	83	80	120	0.4221	0.543	20	

Sample ID **0403095-004AMSD** SampType: **MSD** TestCode: **M_ICPMS_S** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS_040417A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW1312/6020** Analysis Date: **3/17/2004** SeqNo: **218846**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.647	0.0060	0.5	0	129	80	120	0.6165	4.83	20	S

Sample ID **0403091-001AMS** SampType: **MS** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **ICPMS-2_040316A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW1311/6020** Analysis Date: **3/16/2004** SeqNo: **218724**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.6263	0.015	0.5	0	125	75	125	0	0		S
Arsenic	0.53	0.010	0.5	0	106	75	125	0	0		
Beryllium	0.5113	0.0050	0.5	0	102	75	125	0	0		
Cadmium	0.4828	0.0050	0.5	0	96.6	75	125	0	0		
Chromium	0.5169	0.010	0.5	0	103	75	125	0	0		
Copper	0.5073	0.025	0.5	0.03061	95.3	75	125	0	0		B
Iron	2.904	0.25	2	0.7201	109	75	125	0	0		
Lead	0.5487	0.0050	0.5	0	110	75	125	0	0		
Nickel	0.5511	0.020	0.5	0.02597	105	75	125	0	0		
Selenium	0.5024	0.010	0.5	0	100	75	125	0	0		
Silver	0.2107	0.010	0.2	0	105	75	125	0	0		
Thallium	0.5349	0.010	0.5	0	107	75	125	0	0		
Zinc	0.4446	0.050	0.5	0.02195	84.5	75	125	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8867

Sample ID **IMBW1 3/15/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS-2_040315A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW6020** Analysis Date: **3/15/2004** SeqNo: **218414**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.0040									
Beryllium	ND	0.0020									
Cadmium	ND	0.0020									
Chromium	ND	0.0040									
Copper	ND	0.010									
Iron	ND	0.10									
Lead	ND	0.0020									
Nickel	ND	0.0080									
Selenium	ND	0.0040									
Silver	ND	0.0040									
Thallium	ND	0.0040									
Zinc	ND	0.020									

Sample ID **IMBSPLP 3/14/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS-2_040315A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW6020** Analysis Date: **3/15/2004** SeqNo: **218418**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.0040									
Beryllium	ND	0.0020									
Cadmium	ND	0.0020									
Chromium	ND	0.0040									
Copper	ND	0.010									
Iron	ND	0.10									
Lead	ND	0.0020									
Nickel	ND	0.0080									
Selenium	ND	0.0040									
Silver	ND	0.0040									
Thallium	ND	0.0040									
Zinc	ND	0.020									

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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8867

Sample ID **IMBTCLP1 3/15/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **ICPMS-2_040316A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW6020** Analysis Date: **3/16/2004** SeqNo: **218722**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.01245	0.015									J
Arsenic	ND	0.010									
Beryllium	ND	0.0050									
Cadmium	ND	0.0050									
Chromium	ND	0.010									
Copper	0.02524	0.025									
Iron	ND	0.25									
Lead	ND	0.0050									
Nickel	ND	0.020									
Selenium	ND	0.010									
Silver	ND	0.010									
Thallium	ND	0.010									
Zinc	ND	0.050									

Sample ID **IMBW1 3/15/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS_040417A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW6020** Analysis Date: **3/17/2004** SeqNo: **218839**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.0060									

Sample ID **ILCSW1 3/15/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS-2_040315A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW6020** Analysis Date: **3/15/2004** SeqNo: **218415**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.493	0.0040	0.5	0	98.6	80	120	0	0		
Beryllium	0.4884	0.0020	0.5	0	97.7	80	120	0	0		
Cadmium	0.4627	0.0020	0.5	0	92.5	80	120	0	0		
Chromium	0.496	0.0040	0.5	0	99.2	80	120	0	0		
Copper	0.4985	0.010	0.5	0	99.7	80	120	0	0		
Iron	2.215	0.10	2	0	111	80	120	0	0		
Lead	0.491	0.0020	0.5	0	98.2	80	120	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8867

Sample ID **ILCSW1 3/15/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS-2_040315A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW6020** Analysis Date: **3/15/2004** SeqNo: **218415**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.4902	0.0080	0.5	0	98	80	120	0	0		
Selenium	0.4901	0.0040	0.5	0	98	80	120	0	0		
Silver	0.1985	0.0040	0.2	0	99.2	80	120	0	0		
Thallium	0.4755	0.0040	0.5	0	95.1	80	120	0	0		
Zinc	0.447	0.020	0.5	0	89.4	80	120	0	0		

Sample ID **ILCSW1 3/15/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **ICPMS_040417A**
Client ID: **ZZZZZ** Batch ID: **8867** TestNo: **SW6020** Analysis Date: **3/17/2004** SeqNo: **218840**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.6264	0.0060	0.5	0	125	80	120	0	0		S

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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8872

Sample ID **HGMBTCLP1 3/10/0** SampType: **MBLK** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **CETAC_040316B**
Client ID: **ZZZZZ** Batch ID: **8872** TestNo: **SW1311/7470** Analysis Date: **3/16/2004** SeqNo: **218646**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID **HGMBTCLP1 3/15/0** SampType: **MBLK** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **CETAC_040316B**
Client ID: **ZZZZZ** Batch ID: **8872** TestNo: **SW1311/7470** Analysis Date: **3/16/2004** SeqNo: **218657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID **0403078-013AMS** SampType: **MS** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **CETAC_040316B**
Client ID: **ZZZZZ** Batch ID: **8872** TestNo: **SW1311/7470** Analysis Date: **3/16/2004** SeqNo: **218649**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00276	0.00025	0.0025	0	110	75	125	0	0		

Sample ID **0403079-001AMS** SampType: **MS** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **3/16/2004** Run ID: **CETAC_040316B**
Client ID: **ZZZZZ** Batch ID: **8872** TestNo: **SW1311/7470** Analysis Date: **3/16/2004** SeqNo: **218658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00307	0.00025	0.0025	0	123	75	125	0	0		

Sample ID **0403078-013AMSD** SampType: **MSD** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **CETAC_040316B**
Client ID: **ZZZZZ** Batch ID: **8872** TestNo: **SW1311/7470** Analysis Date: **3/16/2004** SeqNo: **218650**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00288	0.00025	0.0025	0	115	75	125	0.00276	4.26	20	

Sample ID **HGLCSW1 3/15/04** SampType: **LCS** TestCode: **M_HG_WATE** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **CETAC_040316B**
Client ID: **ZZZZZ** Batch ID: **8872** TestNo: **SW7470A** Analysis Date: **3/16/2004** SeqNo: **218645**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8872

Sample ID **HGLCSW1 3/15/04** SampType: **LCS** TestCode: **M_HG_WATE** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **CETAC_040316B**
Client ID: **ZZZZZ** Batch ID: **8872** TestNo: **SW7470A** Analysis Date: **3/16/2004** SeqNo: **218645**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00224	0.00025	0.0025	0	89.6	80	120	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8881

Sample ID	MB-8881-SVOC	SampType:	MBLK	TestCode:	SVOC_WATE	Units:	mg/L	Prep Date:	3/15/2004	Run ID:	SVOC-2_040317A
Client ID:	ZZZZZ	Batch ID:	8881	TestNo:	SW8270C			Analysis Date:	3/17/2004	SeqNo:	218883

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.010									
1,2-Dichlorobenzene	ND	0.010									
1,3-Dichlorobenzene	ND	0.010									
1,4-Dichlorobenzene	ND	0.010									
2, 2'-oxybis(1-Chloropropane)	ND	0.010									
2,4,5-Trichlorophenol	ND	0.010									
2,4,6-Trichlorophenol	ND	0.010									
2,4-Dichlorophenol	ND	0.010									
2,4-Dimethylphenol	ND	0.010									
2,4-Dinitrophenol	ND	0.025									
2,4-Dinitrotoluene	ND	0.010									
2,6-Dinitrotoluene	ND	0.010									
2-Chloronaphthalene	ND	0.010									
2-Chlorophenol	ND	0.010									
2-Methylnaphthalene	ND	0.010									
2-Methylphenol	ND	0.010									
2-Nitroaniline	ND	0.025									
2-Nitrophenol	ND	0.010									
3,3'-Dichlorobenzidine	ND	0.020									
3-Nitroaniline	ND	0.025									
4,6-Dinitro-2-methylphenol	ND	0.025									
4-Bromophenyl phenyl ether	ND	0.010									
4-Chloro-3-methylphenol	ND	0.010									
4-Chloroaniline	ND	0.010									
4-Chlorophenyl phenyl ether	ND	0.010									
4-Methylphenol	ND	0.010									
4-Nitroaniline	ND	0.025									
4-Nitrophenol	ND	0.025									
Acenaphthene	ND	0.010									
Acenaphthylene	ND	0.010									
Anthracene	ND	0.010									

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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8881

Sample ID **MB-8881-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **SVOC-2_040317A**
Client ID: **ZZZZZ** Batch ID: **8881** TestNo: **SW8270C** Analysis Date: **3/17/2004** SeqNo: **218883**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	0.010									
Benzo(a)pyrene	ND	0.010									
Benzo(b)fluoranthene	ND	0.010									
Benzo(g,h,i)perylene	ND	0.010									
Benzo(k)fluoranthene	ND	0.010									
Bis(2-chloroethoxy)methane	ND	0.010									
Bis(2-chloroethyl)ether	ND	0.010									
Bis(2-ethylhexyl)phthalate	0.00151	0.010									J
Butyl benzyl phthalate	ND	0.010									
Carbazole	ND	0.025									
Chrysene	ND	0.010									
Di-n-butyl phthalate	0.00258	0.010									J
Di-n-octyl phthalate	ND	0.010									
Dibenz(a,h)anthracene	ND	0.010									
Dibenzofuran	ND	0.010									
Diethyl phthalate	ND	0.010									
Dimethyl phthalate	ND	0.010									
Fluoranthene	ND	0.010									
Fluorene	ND	0.010									
Hexachlorobenzene	ND	0.010									
Hexachlorobutadiene	ND	0.010									
Hexachlorocyclopentadiene	ND	0.010									
Hexachloroethane	ND	0.010									
Indeno(1,2,3-cd)pyrene	ND	0.010									
Isophorone	ND	0.010									
N-Nitrosodi-n-propylamine	ND	0.010									
N-Nitrosodiphenylamine	ND	0.010									
Naphthalene	ND	0.010									
Nitrobenzene	ND	0.010									
Pentachlorophenol	ND	0.010									
Phenanthrene	ND	0.010									

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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8881

Sample ID **MB-8881-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **SVOC-2_040317A**
Client ID: **ZZZZZ** Batch ID: **8881** TestNo: **SW8270C** Analysis Date: **3/17/2004** SeqNo: **218883**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	0.010									
Pyrene	ND	0.010									

Sample ID **LCS-8881-SVOC** SampType: **LCS** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **SVOC-2_040317A**
Client ID: **ZZZZZ** Batch ID: **8881** TestNo: **SW8270C** Analysis Date: **3/18/2004** SeqNo: **218884**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.03645	0.010	0.05	0	72.9	31	101	0	0		
1,4-Dichlorobenzene	0.03321	0.010	0.05	0	66.4	27	99	0	0		
2,4-Dinitrotoluene	0.04589	0.010	0.05	0	91.8	44	123	0	0		
2-Chlorophenol	0.07434	0.010	0.1	0	74.3	30	97	0	0		
4-Chloro-3-methylphenol	0.0849	0.010	0.1	0	84.9	43	113	0	0		
4-Nitrophenol	0.0981	0.025	0.1	0	98.1	10	129	0	0		
Acenaphthene	0.04361	0.010	0.05	0	87.2	43	122	0	0		
N-Nitrosodi-n-propylamine	0.0408	0.010	0.05	0	81.6	36	104	0	0		
Pentachlorophenol	0.07781	0.010	0.1	0	77.8	50	113	0	0		
Phenol	0.07463	0.010	0.1	0	74.6	12	101	0	0		
Pyrene	0.04346	0.010	0.05	0	86.9	54	131	0	0		

Sample ID **LCSD-8881-SVOC** SampType: **LCSD** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **SVOC-2_040317A**
Client ID: **ZZZZZ** Batch ID: **8881** TestNo: **SW8270C** Analysis Date: **3/18/2004** SeqNo: **218885**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.04173	0.010	0.05	0	83.5	31	101	0.03645	13.5	28	
1,4-Dichlorobenzene	0.03759	0.010	0.05	0	75.2	27	99	0.03321	12.4	28	
2,4-Dinitrotoluene	0.05106	0.010	0.05	0	102	44	123	0.04589	10.7	38	
2-Chlorophenol	0.08636	0.010	0.1	0	86.4	30	97	0.07434	15.0	40	
4-Chloro-3-methylphenol	0.09571	0.010	0.1	0	95.7	43	113	0.0849	12.0	42	
4-Nitrophenol	0.114	0.025	0.1	0	114	10	129	0.0981	15.0	50	
Acenaphthene	0.04813	0.010	0.05	0	96.3	43	122	0.04361	9.85	31	
N-Nitrosodi-n-propylamine	0.0459	0.010	0.05	0	91.8	36	104	0.0408	11.8	38	

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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8881

Sample ID **LCSD-8881-SVOC** SampType: **LCSD** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **3/15/2004** Run ID: **SVOC-2_040317A**
Client ID: **ZZZZZ** Batch ID: **8881** TestNo: **SW8270C** Analysis Date: **3/18/2004** SeqNo: **218885**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pentachlorophenol	0.08776	0.010	0.1	0	87.8	50	113	0.07781	12.0	50	
Phenol	0.087	0.010	0.1	0	87	12	101	0.07463	15.3	42	
Pyrene	0.0471	0.010	0.05	0	94.2	54	131	0.04346	8.04	31	

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R11765

Sample ID **VBLK031804-1** SampType: **MBLK** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040318A**
Client ID: **ZZZZZ** Batch ID: **R11765** TestNo: **SW8260B** Analysis Date: **3/18/2004** SeqNo: **219024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0050									
1,1,2,2-Tetrachloroethane	ND	0.0050									
1,1,2-Trichloroethane	ND	0.0050									
1,1-Dichloroethane	ND	0.0050									
1,1-Dichloroethene	ND	0.0050									
1,2-Dibromoethane	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
1,2-Dichloropropane	ND	0.0050									
1,3,5-Trimethylbenzene	ND	0.0050									
1,3-Butadiene	ND	0.010									*
1,4-Dioxane	ND	0.10									
1-Ethyl-2-methylbenzene	ND	0.0050									*
2-Butanone	ND	0.010									
2-Hexanone	ND	0.010									
4-Methyl-2-pentanone	ND	0.010									
Acetone	ND	0.010									
Acrolein	ND	0.050									
Acrylonitrile	ND	0.0050									
Benzene	ND	0.0050									
Bromodichloromethane	ND	0.0050									
Bromoform	ND	0.0050									
Bromomethane	ND	0.010									
Carbon disulfide	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroethane	ND	0.010									
Chloroform	ND	0.0050									
Chloromethane	ND	0.010									
cis-1,2-Dichloroethene	ND	0.0050									
cis-1,3-Dichloropropene	ND	0.0050									
Dibromochloromethane	ND	0.0050									

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R11765

Sample ID **VBLK031804-1** SampType: **MBLK** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040318A**
Client ID: **ZZZZZ** Batch ID: **R11765** TestNo: **SW8260B** Analysis Date: **3/18/2004** SeqNo: **219024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	0.0050									
m,p-Xylene	0.00052	0.0050									J
Methylene chloride	ND	0.0050									
o-Xylene	ND	0.0050									
Styrene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	ND	0.0050									
trans-1,2-Dichloroethene	ND	0.0050									
trans-1,3-Dichloropropene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									

Sample ID **VLCS031804-1** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040318A**
Client ID: **ZZZZZ** Batch ID: **R11765** TestNo: **SW8260B** Analysis Date: **3/18/2004** SeqNo: **219022**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05507	0.0050	0.05	0	110	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.05108	0.0050	0.05	0	102	70	130	0	0		
1,1,2-Trichloroethane	0.05326	0.0050	0.05	0	107	70	130	0	0		
1,1-Dichloroethane	0.05433	0.0050	0.05	0	109	70	130	0	0		
1,1-Dichloroethene	0.05056	0.0050	0.05	0	101	70	130	0	0		
1,2-Dibromoethane	0.05351	0.0050	0.05	0	107	70	130	0	0		
1,2-Dichloroethane	0.05464	0.0050	0.05	0	109	70	130	0	0		
1,2-Dichloropropane	0.0543	0.0050	0.05	0	109	70	130	0	0		
1,3,5-Trimethylbenzene	0.05603	0.0050	0.05	0	112	70	130	0	0		
1,4-Dioxane	0.4184	0.10	0.5	0	83.7	50	150	0	0		
2-Butanone	0.06435	0.010	0.05	0	129	70	130	0	0		
2-Hexanone	0.05787	0.010	0.05	0	116	70	130	0	0		
4-Methyl-2-pentanone	0.0522	0.010	0.05	0	104	70	130	0	0		
Acetone	0.08059	0.010	0.05	0	161	70	130	0	0		S
Acrolein	0.04813	0.050	0.05	0	96.3	50	150	0	0		J

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R11765

Sample ID **VLCS031804-1** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040318A**
Client ID: **ZZZZZ** Batch ID: **R11765** TestNo: **SW8260B** Analysis Date: **3/18/2004** SeqNo: **219022**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acrylonitrile	0.04958	0.0050	0.05	0	99.2	70	130	0	0		
Benzene	0.05321	0.0050	0.05	0	106	70	130	0	0		
Bromodichloromethane	0.05029	0.0050	0.05	0	101	70	130	0	0		
Bromoform	0.049	0.0050	0.05	0	98	70	130	0	0		
Bromomethane	0.03591	0.010	0.05	0	71.8	70	130	0	0		
Carbon disulfide	0.0516	0.0050	0.05	0	103	70	130	0	0		
Carbon tetrachloride	0.0538	0.0050	0.05	0	108	70	130	0	0		
Chlorobenzene	0.0541	0.0050	0.05	0	108	70	130	0	0		
Chloroethane	0.04962	0.010	0.05	0	99.2	70	130	0	0		
Chloroform	0.05359	0.0050	0.05	0	107	70	130	0	0		
Chloromethane	0.04341	0.010	0.05	0	86.8	70	130	0	0		
cis-1,2-Dichloroethene	0.0527	0.0050	0.05	0	105	70	130	0	0		
cis-1,3-Dichloropropene	0.05316	0.0050	0.05	0	106	70	130	0	0		
Dibromochloromethane	0.05327	0.0050	0.05	0	107	70	130	0	0		
Ethylbenzene	0.05551	0.0050	0.05	0	111	70	130	0	0		
m,p-Xylene	0.1088	0.0050	0.1	0.00052	108	70	130	0	0		
Methylene chloride	0.05226	0.0050	0.05	0	105	70	130	0	0		
o-Xylene	0.0534	0.0050	0.05	0	107	70	130	0	0		
Styrene	0.05489	0.0050	0.05	0	110	70	130	0	0		
Tetrachloroethene	0.05569	0.0050	0.05	0	111	70	130	0	0		
Toluene	0.05448	0.0050	0.05	0	109	70	130	0	0		
trans-1,2-Dichloroethene	0.05251	0.0050	0.05	0	105	70	130	0	0		
trans-1,3-Dichloropropene	0.05777	0.0050	0.05	0	116	70	130	0	0		
Trichloroethene	0.05601	0.0050	0.05	0	112	70	130	0	0		
Vinyl chloride	0.05002	0.0050	0.05	0	100	70	130	0	0		

Sample ID **VLCSD031804-1** SampType: **LCSD** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040318A**
Client ID: **ZZZZZ** Batch ID: **R11765** TestNo: **SW8260B** Analysis Date: **3/18/2004** SeqNo: **219023**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05537	0.0050	0.05	0	111	70	130	0.05507	0.543	20	

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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R11765

Sample ID **VLCSD031804-1** SampType: **LCSD** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040318A**
Client ID: **ZZZZZ** Batch ID: **R11765** TestNo: **SW8260B** Analysis Date: **3/18/2004** SeqNo: **219023**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	0.04641	0.0050	0.05	0	92.8	70	130	0.05108	9.58	20	
1,1,2-Trichloroethane	0.05298	0.0050	0.05	0	106	70	130	0.05326	0.527	20	
1,1-Dichloroethane	0.05409	0.0050	0.05	0	108	70	130	0.05433	0.443	20	
1,1-Dichloroethene	0.05135	0.0050	0.05	0	103	70	130	0.05056	1.55	20	
1,2-Dibromoethane	0.05262	0.0050	0.05	0	105	70	130	0.05351	1.68	20	
1,2-Dichloroethane	0.05392	0.0050	0.05	0	108	70	130	0.05464	1.33	20	
1,2-Dichloropropane	0.0547	0.0050	0.05	0	109	70	130	0.0543	0.734	20	
1,3,5-Trimethylbenzene	0.05665	0.0050	0.05	0	113	70	130	0.05603	1.10	20	
1,3-Butadiene	0.04432	0.010	0.05	0	88.6	70	130	0.04427	0.113	0	*
1,4-Dioxane	0.3792	0.10	0.5	0	75.8	50	150	0.4184	9.84	20	
1-Ethyl-2-methylbenzene	0.05413	0.0050	0.05	0	108	70	130	0.05359	1.00	20	*
2-Butanone	0.05702	0.010	0.05	0	114	70	130	0.06435	12.1	20	
2-Hexanone	0.05463	0.010	0.05	0	109	70	130	0.05787	5.76	20	
4-Methyl-2-pentanone	0.04955	0.010	0.05	0	99.1	70	130	0.0522	5.21	20	
Acetone	0.08203	0.010	0.05	0	164	70	130	0.08059	1.77	20	S
Acrolein	0.04541	0.050	0.05	0	90.8	50	150	0.04813	0	20	J
Acrylonitrile	0.04846	0.0050	0.05	0	96.9	70	130	0.04958	2.28	20	
Benzene	0.05451	0.0050	0.05	0	109	70	130	0.05321	2.41	20	
Bromodichloromethane	0.05053	0.0050	0.05	0	101	70	130	0.05029	0.476	20	
Bromoform	0.04848	0.0050	0.05	0	97	70	130	0.049	1.07	20	
Bromomethane	0.0354	0.010	0.05	0	70.8	70	130	0.03591	1.43	20	
Carbon disulfide	0.05204	0.0050	0.05	0	104	70	130	0.0516	0.849	20	
Carbon tetrachloride	0.05484	0.0050	0.05	0	110	70	130	0.0538	1.91	20	
Chlorobenzene	0.05474	0.0050	0.05	0	109	70	130	0.0541	1.18	20	
Chloroethane	0.04795	0.010	0.05	0	95.9	70	130	0.04962	3.42	20	
Chloroform	0.05357	0.0050	0.05	0	107	70	130	0.05359	0.0373	20	
Chloromethane	0.0413	0.010	0.05	0	82.6	70	130	0.04341	4.98	20	
cis-1,2-Dichloroethene	0.05252	0.0050	0.05	0	105	70	130	0.0527	0.342	20	
cis-1,3-Dichloropropene	0.05408	0.0050	0.05	0	108	70	130	0.05316	1.72	20	
Dibromochloromethane	0.05368	0.0050	0.05	0	107	70	130	0.05327	0.767	20	
Ethylbenzene	0.0561	0.0050	0.05	0	112	70	130	0.05551	1.06	20	

Qualifiers:
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B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R11765

Sample ID **VLCSD031804-1** SampType: **LCSD** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040318A**
Client ID: **ZZZZZ** Batch ID: **R11765** TestNo: **SW8260B** Analysis Date: **3/18/2004** SeqNo: **219023**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	0.1114	0.0050	0.1	0.00052	111	70	130	0.1088	2.33	20	
Methylene chloride	0.05272	0.0050	0.05	0	105	70	130	0.05226	0.876	20	
o-Xylene	0.05413	0.0050	0.05	0	108	70	130	0.0534	1.36	20	
Styrene	0.05543	0.0050	0.05	0	111	70	130	0.05489	0.979	20	
Tetrachloroethene	0.05653	0.0050	0.05	0	113	70	130	0.05569	1.50	20	
Toluene	0.05514	0.0050	0.05	0	110	70	130	0.05448	1.20	20	
trans-1,2-Dichloroethene	0.05263	0.0050	0.05	0	105	70	130	0.05251	0.228	20	
trans-1,3-Dichloropropene	0.05802	0.0050	0.05	0	116	70	130	0.05777	0.432	20	
Trichloroethene	0.05987	0.0050	0.05	0	120	70	130	0.05601	6.66	20	
Vinyl chloride	0.04833	0.0050	0.05	0	96.7	70	130	0.05002	3.44	20	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 8888

Sample ID **TCNMBW1 031704** SampType: **MBLK** TestCode: **CN_TW** Units: **mg/L** Prep Date: **3/17/2004** Run ID: **LACHAT_040318A**
Client ID: **ZZZZZ** Batch ID: **8888** TestNo: **SW9012A** Analysis Date: **3/18/2004** SeqNo: **218960**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.0050									

Sample ID **TCNLCSW1 031704** SampType: **LCS** TestCode: **CN_TW** Units: **mg/L** Prep Date: **3/17/2004** Run ID: **LACHAT_040318A**
Client ID: **ZZZZZ** Batch ID: **8888** TestNo: **SW9012A** Analysis Date: **3/18/2004** SeqNo: **218961**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.2168	0.0050	0.2	0	108	90	110	0	0		

Sample ID **0403100-001DMS** SampType: **MS** TestCode: **CN_TW** Units: **mg/L** Prep Date: **3/17/2004** Run ID: **LACHAT_040318A**
Client ID: **HAS-MWRD-001** Batch ID: **8888** TestNo: **SW9012A** Analysis Date: **3/18/2004** SeqNo: **218963**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	1.122	0.025	1	0.1021	102	75	125	0	0		

Sample ID **0403100-001DMSD** SampType: **MSD** TestCode: **CN_TW** Units: **mg/L** Prep Date: **3/17/2004** Run ID: **LACHAT_040318A**
Client ID: **HAS-MWRD-001** Batch ID: **8888** TestNo: **SW9012A** Analysis Date: **3/18/2004** SeqNo: **218964**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	1.129	0.025	1	0.1021	103	75	125	1.122	0.663	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
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CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R11716

Sample ID	0403100-001F DUP	SampType:	DUP	TestCode:	PH_W	Units:	pH units	Prep Date:	3/15/2004	Run ID:	PH_040315A
Client ID:	HAS-MWRD-001	Batch ID:	R11716	TestNo:	E150.1			Analysis Date:	3/15/2004	SeqNo:	218389

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.93	0	0	0	0	0	0	7.91	0.253	10	*

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0403100
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R11758

Sample ID **MBLK** SampType: **MBLK** TestCode: **OG_W** Units: **mg/L** Prep Date: **3/17/2004** Run ID: **BALANCE_040317B**
Client ID: **ZZZZZ** Batch ID: **R11758** TestNo: **E1664** Analysis Date: **3/18/2004** SeqNo: **218969**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	1.4	5.0									J*

Sample ID **LCS** SampType: **LCS** TestCode: **OG_W** Units: **mg/L** Prep Date: **3/17/2004** Run ID: **BALANCE_040317B**
Client ID: **ZZZZZ** Batch ID: **R11758** TestNo: **E1664** Analysis Date: **3/18/2004** SeqNo: **218970**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	67	5.0	80	1.4	82	78	114	0	0		*

Sample ID **LCSD** SampType: **LCSD** TestCode: **OG_W** Units: **mg/L** Prep Date: **3/17/2004** Run ID: **BALANCE_040317B**
Client ID: **ZZZZZ** Batch ID: **R11758** TestNo: **E1664** Analysis Date: **3/18/2004** SeqNo: **218971**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	73.2	5.0	80	1.4	89.8	78	114	67	8.84	20	*

Sample ID **0403100-001E DUP** SampType: **DUP** TestCode: **OG_W** Units: **mg/L** Prep Date: **3/17/2004** Run ID: **BALANCE_040317B**
Client ID: **HAS-MWRD-001** Batch ID: **R11758** TestNo: **E1664** Analysis Date: **3/18/2004** SeqNo: **218973**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	6.7	5.0	0	0	0	0	0	7.4	9.93	20	*

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

April 16, 2004

Joan Gonzalez
Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0404063

Dear Joan Gonzalez:

STAT Analysis received 1 sample for the referenced project on 4/8/2004. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone.This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: April 16, 2004

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0404063

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0404063-001A	HAS-MWRD-002		4/8/2004 11:30:00 AM	4/8/2004
0404063-001B	HAS-MWRD-002		4/8/2004 11:30:00 AM	4/8/2004
0404063-001C	HAS-MWRD-002		4/8/2004 11:30:00 AM	4/8/2004
0404063-001D	HAS-MWRD-002		4/8/2004 11:30:00 AM	4/8/2004
0404063-001E	HAS-MWRD-002		4/8/2004 11:30:00 AM	4/8/2004

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Date Reported: April 16, 2004
Date Printed: April 16, 2004

Client: Burns & McDonnell
Lab Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0404063-001

Client Sample ID: HAS-MWRD-002
Collection Date: 4/8/2004 11:30:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3510C)**			Prep Date: **4/9/2004**		Analyst: **ERP**
Aroclor 1016	ND	0.0005		mg/L	1	4/9/2004
Aroclor 1221	ND	0.0005		mg/L	1	4/9/2004
Aroclor 1232	ND	0.0005		mg/L	1	4/9/2004
Aroclor 1242	ND	0.0005		mg/L	1	4/9/2004
Aroclor 1248	ND	0.0005		mg/L	1	4/9/2004
Aroclor 1254	ND	0.0005		mg/L	1	4/9/2004
Aroclor 1260	ND	0.0005		mg/L	1	4/9/2004
Pesticides	**SW8081 (SW3510C)**			Prep Date: **4/9/2004**		Analyst: **ERP**
4,4´-DDD	ND	0.0001		mg/L	1	4/9/2004
4,4´-DDE	ND	0.0001		mg/L	1	4/9/2004
4,4´-DDT	ND	0.0001		mg/L	1	4/9/2004
Aldrin	ND	0.00005		mg/L	1	4/9/2004
alpha-BHC	ND	0.00005		mg/L	1	4/9/2004
alpha-Chlordane	ND	0.00005		mg/L	1	4/9/2004
beta-BHC	ND	0.00005		mg/L	1	4/9/2004
Chlordane	ND	0.0005		mg/L	1	4/9/2004
delta-BHC	ND	0.00005		mg/L	1	4/9/2004
Dieldrin	ND	0.0001		mg/L	1	4/9/2004
Endosulfan I	ND	0.00005		mg/L	1	4/9/2004
Endosulfan II	ND	0.0001		mg/L	1	4/9/2004
Endosulfan sulfate	ND	0.0001		mg/L	1	4/9/2004
Endrin	ND	0.0001		mg/L	1	4/9/2004
Endrin aldehyde	ND	0.0001		mg/L	1	4/9/2004
Endrin ketone	ND	0.0001		mg/L	1	4/9/2004
gamma-BHC	ND	0.00005		mg/L	1	4/9/2004
gamma-Chlordane	ND	0.00005		mg/L	1	4/9/2004
Heptachlor	ND	0.00005		mg/L	1	4/9/2004
Heptachlor epoxide	ND	0.00005		mg/L	1	4/9/2004
Methoxychlor	ND	0.0005		mg/L	1	4/9/2004
Toxaphene	ND	0.001		mg/L	1	4/9/2004
Total Petroleum Hydrocarbons in Water	**SW8015M (SW3510C)**			Prep Date: **4/14/2004**		Analyst: **JF**
TPH (Gasoline)	0.25	0.1	*	mg/L	1	4/14/2004
TPH (Diesel)	1	0.1	*	mg/L	1	4/14/2004
TPH (Oil)	0.47	0.1	*	mg/L	1	4/14/2004
Mercury	**SW7470A**			Prep Date: **4/14/2004**		Analyst: **JG**
Mercury	ND	0.00025		mg/L	1	4/15/2004

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Date Printed: April 16, 2004

Client: Burns & McDonnell
Lab Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0404063-001

Client Sample ID: HAS-MWRD-002
Collection Date: 4/8/2004 11:30:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3005A)**			Prep Date: **4/9/2004**		Analyst: **BJA**
Antimony	ND	0.006		mg/L	1	4/9/2004
Arsenic	ND	0.002		mg/L	1	4/9/2004
Beryllium	ND	0.001		mg/L	1	4/9/2004
Cadmium	ND	0.001		mg/L	1	4/9/2004
Chromium	0.003	0.002		mg/L	1	4/9/2004
Copper	0.0095	0.005		mg/L	1	4/12/2004
Iron	3.2	0.05		mg/L	1	4/12/2004
Lead	0.035	0.001		mg/L	1	4/9/2004
Nickel	0.0036	0.002		mg/L	1	4/12/2004
Selenium	ND	0.002		mg/L	1	4/9/2004
Silver	ND	0.002		mg/L	1	4/9/2004
Thallium	ND	0.002		mg/L	1	4/9/2004
Zinc	0.025	0.01		mg/L	1	4/9/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3510C)**			Prep Date: **4/9/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.01		mg/L	1	4/10/2004
1,2-Dichlorobenzene	ND	0.01		mg/L	1	4/10/2004
1,3-Dichlorobenzene	ND	0.01		mg/L	1	4/10/2004
1,4-Dichlorobenzene	ND	0.01		mg/L	1	4/10/2004
2, 2'-oxybis(1-Chloropropane)	ND	0.01		mg/L	1	4/10/2004
2,4,5-Trichlorophenol	ND	0.025		mg/L	1	4/10/2004
2,4,6-Trichlorophenol	ND	0.01		mg/L	1	4/10/2004
2,4-Dichlorophenol	ND	0.01		mg/L	1	4/10/2004
2,4-Dimethylphenol	ND	0.01		mg/L	1	4/10/2004
2,4-Dinitrophenol	ND	0.025		mg/L	1	4/10/2004
2,4-Dinitrotoluene	ND	0.01		mg/L	1	4/10/2004
2,6-Dinitrotoluene	ND	0.01		mg/L	1	4/10/2004
2-Chloronaphthalene	ND	0.01		mg/L	1	4/10/2004
2-Chlorophenol	ND	0.01		mg/L	1	4/10/2004
2-Methylnaphthalene	ND	0.01		mg/L	1	4/10/2004
2-Methylphenol	ND	0.01		mg/L	1	4/10/2004
2-Nitroaniline	ND	0.01		mg/L	1	4/10/2004
2-Nitrophenol	ND	0.01		mg/L	1	4/10/2004
3,3'-Dichlorobenzidine	ND	0.01		mg/L	1	4/10/2004
3-Nitroaniline	ND	0.025		mg/L	1	4/10/2004
4,6-Dinitro-2-methylphenol	ND	0.01		mg/L	1	4/10/2004
4-Bromophenyl phenyl ether	ND	0.01		mg/L	1	4/10/2004
4-Chloro-3-methylphenol	ND	0.01		mg/L	1	4/10/2004
4-Chloroaniline	ND	0.01		mg/L	1	4/10/2004

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Client: Burns & McDonnell
Lab Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0404063-001
Client Sample ID: HAS-MWRD-002
Collection Date: 4/8/2004 11:30:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3510C)**			Prep Date: **4/9/2004**		Analyst: **JF**
4-Chlorophenyl phenyl ether	ND	0.01		mg/L	1	4/10/2004
4-Methylphenol	ND	0.01		mg/L	1	4/10/2004
4-Nitroaniline	ND	0.025		mg/L	1	4/10/2004
4-Nitrophenol	ND	0.025		mg/L	1	4/10/2004
Acenaphthene	ND	0.01		mg/L	1	4/10/2004
Acenaphthylene	ND	0.01		mg/L	1	4/10/2004
Anthracene	ND	0.01		mg/L	1	4/10/2004
Benz(a)anthracene	ND	0.01		mg/L	1	4/10/2004
Benzo(a)pyrene	ND	0.01		mg/L	1	4/10/2004
Benzo(b)fluoranthene	ND	0.01		mg/L	1	4/10/2004
Benzo(g,h,i)perylene	ND	0.01		mg/L	1	4/10/2004
Benzo(k)fluoranthene	ND	0.01		mg/L	1	4/10/2004
Bis(2-chloroethoxy)methane	ND	0.01		mg/L	1	4/10/2004
Bis(2-chloroethyl)ether	ND	0.01		mg/L	1	4/10/2004
Bis(2-chloroisopropyl)ether	ND	0.01		mg/L	1	4/10/2004
Bis(2-ethylhexyl)phthalate	ND	0.01		mg/L	1	4/10/2004
Butyl benzyl phthalate	ND	0.01		mg/L	1	4/10/2004
Carbazole	ND	0.01		mg/L	1	4/10/2004
Chrysene	ND	0.01		mg/L	1	4/10/2004
Di-n-butyl phthalate	ND	0.01		mg/L	1	4/10/2004
Di-n-octyl phthalate	ND	0.01		mg/L	1	4/10/2004
Dibenz(a,h)anthracene	ND	0.01		mg/L	1	4/10/2004
Dibenzofuran	ND	0.01		mg/L	1	4/10/2004
Diethyl phthalate	ND	0.01		mg/L	1	4/10/2004
Dimethyl phthalate	ND	0.01		mg/L	1	4/10/2004
Fluoranthene	ND	0.01		mg/L	1	4/10/2004
Fluorene	ND	0.01		mg/L	1	4/10/2004
Hexachlorobenzene	ND	0.01		mg/L	1	4/10/2004
Hexachlorobutadiene	ND	0.01		mg/L	1	4/10/2004
Hexachlorocyclopentadiene	ND	0.01		mg/L	1	4/10/2004
Hexachloroethane	ND	0.01		mg/L	1	4/10/2004
Indeno(1,2,3-cd)pyrene	ND	0.01		mg/L	1	4/10/2004
Isophorone	ND	0.01		mg/L	1	4/10/2004
N-Nitrosodi-n-propylamine	ND	0.01		mg/L	1	4/10/2004
N-Nitrosodiphenylamine	ND	0.01		mg/L	1	4/10/2004
Naphthalene	ND	0.01		mg/L	1	4/10/2004
Nitrobenzene	ND	0.01		mg/L	1	4/10/2004
Pentachlorophenol	ND	0.025		mg/L	1	4/10/2004

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Client: Burns & McDonnell
Lab Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0404063-001

Client Sample ID: HAS-MWRD-002
Collection Date: 4/8/2004 11:30:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3510C)**			Prep Date: **4/9/2004**		Analyst: **JF**
Phenanthrene	ND	0.01		mg/L	1	4/10/2004
Phenol	ND	0.01		mg/L	1	4/10/2004
Pyrene	ND	0.01		mg/L	1	4/10/2004
Volatile Organic Compounds by GC/MS	**SW8260B (SW5030B)**			Prep Date:		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.005		mg/L	1	4/16/2004
1,1,2,2-Tetrachloroethane	ND	0.005		mg/L	1	4/16/2004
1,1,2-Trichloroethane	ND	0.005		mg/L	1	4/16/2004
1,1-Dichloroethane	ND	0.005		mg/L	1	4/16/2004
1,1-Dichloroethene	ND	0.005		mg/L	1	4/16/2004
1,2-Dibromoethane	ND	0.005		mg/L	1	4/16/2004
1,2-Dichloroethane	ND	0.005		mg/L	1	4/16/2004
1,2-Dichloropropane	ND	0.005		mg/L	1	4/16/2004
1,3,5-Trimethylbenzene	ND	0.005		mg/L	1	4/16/2004
1,3-Butadiene	ND	0.01	*	mg/L	1	4/16/2004
1,4-Dioxane	ND	0.1		mg/L	1	4/16/2004
1-Ethyl-2-methylbenzene	ND	0.005	*	mg/L	1	4/16/2004
2-Butanone	ND	0.01		mg/L	1	4/16/2004
2-Hexanone	ND	0.01		mg/L	1	4/16/2004
4-Methyl-2-pentanone	ND	0.01		mg/L	1	4/16/2004
Acetone	ND	0.01		mg/L	1	4/16/2004
Acrolein	ND	0.05		mg/L	1	4/16/2004
Acrylonitrile	ND	0.005		mg/L	1	4/16/2004
Benzene	ND	0.005		mg/L	1	4/16/2004
Bromodichloromethane	ND	0.005		mg/L	1	4/16/2004
Bromoform	ND	0.005		mg/L	1	4/16/2004
Bromomethane	ND	0.01		mg/L	1	4/16/2004
Carbon disulfide	ND	0.005		mg/L	1	4/16/2004
Carbon tetrachloride	ND	0.005		mg/L	1	4/16/2004
Chlorobenzene	ND	0.005		mg/L	1	4/16/2004
Chloroethane	ND	0.01		mg/L	1	4/16/2004
Chloroform	ND	0.005		mg/L	1	4/16/2004
Chloromethane	ND	0.01		mg/L	1	4/16/2004
cis-1,2-Dichloroethene	ND	0.005		mg/L	1	4/16/2004
cis-1,3-Dichloropropene	ND	0.005		mg/L	1	4/16/2004
Dibromochloromethane	ND	0.005		mg/L	1	4/16/2004
Ethylbenzene	ND	0.005		mg/L	1	4/16/2004
m,p-Xylene	ND	0.005		mg/L	1	4/16/2004
Methylene chloride	ND	0.01		mg/L	1	4/16/2004

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Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0404063-001

Client Sample ID: HAS-MWRD-002
Collection Date: 4/8/2004 11:30:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW8260B (SW5030B)**			Prep Date:		Analyst: **PS**
Naphthalene	0.038	0.015		mg/L	1	4/16/2004
o-Xylene	ND	0.005		mg/L	1	4/16/2004
Styrene	ND	0.005		mg/L	1	4/16/2004
Tetrachloroethene	ND	0.005		mg/L	1	4/16/2004
Toluene	ND	0.005		mg/L	1	4/16/2004
trans-1,2-Dichloroethene	ND	0.005		mg/L	1	4/16/2004
trans-1,3-Dichloropropene	ND	0.005		mg/L	1	4/16/2004
Trichloroethene	ND	0.005		mg/L	1	4/16/2004
Vinyl chloride	ND	0.01		mg/L	1	4/16/2004
Cyanide, Total	**SW9012A**			Prep Date: **4/9/2004**		Analyst: **YZ**
Cyanide	0.22	0.025		mg/L	1	4/13/2004
Oil and Grease	**E1664**			Prep Date: **4/9/2004**		Analyst: **PMS**
Oil and Grease (HEM)	36	5	*	mg/L	1	4/10/2004
pH	**E150.1**			Prep Date: **4/8/2004**		Analyst: **RW**
pH	7.8		*	pH units	1	4/8/2004

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: (312) 733-0551

Document Control No: HAS-006-2004
Lab. Reference No. or Episode No.: 0404063

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: MWRD&C SDA 202	Naphthalene	TPH-DRO	TPH-GRO	TPH-Motor Oil	TPH as Diesel	TPH as Gasoline	Remarks
HAS	MWRD	002	—	—	—	—	4/8/04	1130	X			8	X	X	X	X	X	X	X	001

4/8/04

Sampler (signature): [signature]
Sampler (signature):
Custody Seal Number: 040804STAT-001, 040804STAT-002
Special Instructions: STANDARD TAT!

Relinquished By (signature): 1. [signature] Date/Time: 4/8/04 1400 Received By (signature): [signature] Date/Time: 4/8/04 1500
Relinquished By (signature): 2. Date/Time: Received By (signature): Date/Time:

Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt: 4°C
Laboratory Comments:

STAT Analysis Corporation

Sample Receipt Checklist

Client Name **B&M**

Work Order Numbe **0404063**

Date and Time Received: **04/08/2004**

Received by CC

Reviewed by cw (Initials) 4/12/04 (Date)

Checklist completed b [signature] Date 4/8/04

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 4 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☑	No ☐	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments:

Corrective Action

STAT Analysis Corporation

Date: 16-Apr-04

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8260B **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	BR4FBZ	BZMED8	DBFM	DCA12D4				
VLCS041504-1	101	99.5	95.2	99.6				
VLCSD041504-1	104	100	94.9	101				
VBLK041504-1	103	100	93.8	99.7				
0404063-001A	102	99.3	94.6	99.0				

Acronym		Surrogate	QC Limits
BR4FBZ	=	4-Bromofluorobenzene	86-115
BZMED8	=	Toluene-d8	88-110
DBFM	=	Dibromofluoromethane	86-118
DCA12D4	=	1,2-Dichloroethane-d4	80-120

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

Date: 16-Apr-04

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8270C **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
MB-9108-SVOC	86.0	75.4	79.4	116	64.5	49.3	86.9	94.9
LCS-9108-SVOC	84.0	74.7	78.8	113	59.4	45.8	85.2	90.6
LCSD-9108-SVOC	82.6	62.1	76.7	110	58.5	45.2	78.1	91.4
0404063-001B	80.6	69.0	74.1	119	58.3	47.0	79.1	96.0

Acronym		Surrogate	QC Limits
CLPH2D4	=	2-Chlorophenol-d4	33-110
DCBZ12D4	=	1,2-Dichlorobenzene-d4	16-110
NO2BZD5	=	Nitrobenzene-d5	35-114
PH246BR	=	2,4,6-Tribromophenol	10-123
PH2F	=	2-Fluorophenol	21-110
PHD5	=	Phenol-d5	10-110
PHEN2F	=	2-Fluorobiphenyl	43-116
PHEND14	=	4-Terphenyl-d14	33-141

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **4/9/2004 5:08:21 P**
Prep End Date: **4/9/2004 9:27:46 P**

Prep Batch **9108** Prep Code: **3510_SVOC** Technician: **VA**

Prep Factor Units: **mL / L**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0404052-001A	Soil		0.5	0	0	1	2.000	4/9/2004	4/9/2004
0404063-001B	Water		1	0	0	1	1.000	4/9/2004	4/9/2004
0404068-001B	Water		0.96	0	0	1	1.042	4/9/2004	4/9/2004
LCS-9108-SVOC			1	0	0	1	1.000	4/9/2004	4/9/2004
LCSD-9108-SVOC			1	0	0	1	1.000	4/9/2004	4/9/2004
MB-9108-SVOC			1	0	0	1	1.000	4/9/2004	4/9/2004
MB-9108-TCLP			0.5	0	0	1	2.000	4/9/2004	4/9/2004

STAT Analysis Corporation

Date: 16-Apr-04

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8081 **Matrix:** W

Sample ID	CL10BZ2	XYL2456CLM						
MB-9101-PP	39.0	59.0						
LCS-9101-PEST	37.0	60.0						
0404063-001B	58.0	66.0						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

Date: 16-Apr-04

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8082 **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
MB-9101-PP	37.0	71.0						
LCS-9101-PCB	59.0	79.0						
LCSD-9101-PCB	72.0	81.0						
0404063-001B	59.0	85.0						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **4/9/2004 11:51:17 A**
Prep End Date: **4/9/2004 8:34:55 P**

Prep Batch **9101** Prep Code: **3510_PP** Technician: **VA**

Prep Factor Units: **mL / L**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0404063-001B	Water		1	0	0	10	10.000	4/9/2004	4/9/2004
0404068-001B	Water		0.97	0	0	10	10.309	4/9/2004	4/9/2004
LCS-9101-PCB			1	0	0	10	10.000	4/9/2004	4/9/2004
LCS-9101-PEST			1	0	0	10	10.000	4/9/2004	4/9/2004
LCSD-9101-PCB			1	0	0	10	10.000	4/9/2004	4/9/2004
LCSD-9101-PEST			1	0	0	10	10.000	4/9/2004	4/9/2004
MB-9101-PP			1	0	0	10	10.000	4/9/2004	4/9/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **4/14/2004 7:54:35 A**
Prep End Date:

Prep Batch **9143** Prep Code: **3510_TPH** Technician: **CDC**

Prep Factor Units: **mL / L**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0404063-001B	Water		1	0	0	1	1.000	4/14/2004	4/14/2004
LCS-9143-TPH			1	0	0	1	1.000	4/14/2004	4/14/2004
LCSD-9143-TPH			1	0	0	1	1.000	4/14/2004	4/14/2004
MB-9143-TPH			1	0	0	1	1.000	4/14/2004	4/14/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **4/9/2004 8:20:00 A**
Prep End Date: **4/9/2004 3:30:00 P**

Prep Batch **9118** Prep Code: **M_W_PREP** Technician: **DGI**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0404054-001A	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404054-002A	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404054-003A	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404054-004A	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404054-005A	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404054-006A	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404054-007A	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404054-008A	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404054-009A	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-001B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-002B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-002BMS	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-002BMSD	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-003B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-004B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-005B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-008B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-009B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-010B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404058-011B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404059-001B	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404063-001C	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
ILCSW1 4/9/04			50	0	0	50	1.000	4/9/2004	4/9/2004
IMBW1 4/9/04			50	0	0	50	1.000	4/9/2004	4/9/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **4/14/2004 11:00:00**
Prep End Date: **4/14/2004 1:00:00 P**

Prep Batch **9140** Prep Code: **M_HG_W_PR** Technician: **PMS**

Prep Factor Units: **mL /**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0404063-001C	Water		30	0	0	30	1.000	4/14/2004	4/14/2004
0404081-001A	Liquid		1	0	0	30	30.000	4/13/2004	4/13/2004
0404097-001A	Solid		30	0	0	30	1.000	4/14/2004	4/14/2004
0404097-001AMS	Solid		30	0	0	30	1.000	4/14/2004	4/14/2004
0404098-001A	Debris		30	0	0	30	1.000	4/13/2004	4/13/2004
0404098-001AMS	Debris		30	0	0	30	1.000	4/13/2004	4/13/2004
0404098-001AMSD	Debris		30	0	0	30	1.000	4/13/2004	4/13/2004
0404098-002A	Liquid		30	0	0	30	1.000	4/13/2004	4/13/2004
0404098-002ATCLP	Liquid		30	0	0	30	1.000	4/13/2004	4/13/2004
0404103-001A	Soil		30	0	0	30	1.000	4/14/2004	4/14/2004
HGLCSW1 4/13/04			30	0	0	30	1.000	4/13/2004	4/13/2004
HGMBTCLP1 4/12/04			30	0	0	30	1.000	4/13/2004	4/13/2004
HGMBTCLP1 4/13/04			30	0	0	30	1.000	4/14/2004	4/14/2004
HGMBW1 4/13/04			30	0	0	30	1.000	4/13/2004	4/13/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **4/9/2004 2:00:00 P**
Prep End Date: **4/9/2004 3:45:00 P**

Prep Batch **9124** Prep Code: **TCNPREP_W** Technician: **YZ**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0404063-001D	Water		10	0	0	50	5.000	4/9/2004	4/9/2004
0404068-001D	Water		50	0	0	50	1.000	4/9/2004	4/9/2004
0404068-001DMS	Water		10	0	0	50	5.000	4/9/2004	4/9/2004
0404068-001DMSD	Water		10	0	0	50	5.000	4/9/2004	4/9/2004
TCNLCSW1 040904			50	0	0	50	1.000	4/9/2004	4/9/2004
TCNMBW1 040904			50	0	0	50	1.000	4/9/2004	4/9/2004

STAT Analysis Corporation Date: *April 16, 2004*

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9101

Sample ID **MB-9101-PP** SampType: **MBLK** TestCode: **PCB_WATER** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **GC-ECD_040409B**
Client ID: **ZZZZZ** Batch ID: **9101** TestNo: **SW8082** Analysis Date: **4/9/2004** SeqNo: **225098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.00050									
Aroclor 1221	ND	0.00050									
Aroclor 1232	ND	0.00050									
Aroclor 1242	ND	0.00050									
Aroclor 1248	ND	0.00050									
Aroclor 1254	ND	0.00050									
Aroclor 1260	ND	0.00050									

Sample ID **LCS-9101-PCB** SampType: **LCS** TestCode: **PCB_WATER** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **GC-ECD_040409B**
Client ID: **ZZZZZ** Batch ID: **9101** TestNo: **SW8082** Analysis Date: **4/9/2004** SeqNo: **225105**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.009208	0.00050	0.01	0	92.1	30	150	0	0		
Aroclor 1260	0.009618	0.00050	0.01	0	96.2	30	150	0	0		

Sample ID **LCSD-9101-PCB** SampType: **LCSD** TestCode: **PCB_WATER** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **GC-ECD_040409B**
Client ID: **ZZZZZ** Batch ID: **9101** TestNo: **SW8082** Analysis Date: **4/9/2004** SeqNo: **225106**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.009268	0.00050	0.01	0	92.7	30	150	0.009208	0.649	25	
Aroclor 1260	0.009408	0.00050	0.01	0	94.1	30	150	0.009618	2.21	25	

Sample ID **MB-9101-PP** SampType: **MBLK** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **GC-ECD_040409B**
Client ID: **ZZZZZ** Batch ID: **9101** TestNo: **SW8081** Analysis Date: **4/9/2004** SeqNo: **225071**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.00010									
4,4'-DDE	ND	0.00010									
4,4'-DDT	ND	0.00010									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9101

Sample ID **MB-9101-PP** SampType: **MBLK** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **GC-ECD_040409B**
Client ID: **ZZZZZ** Batch ID: **9101** TestNo: **SW8081** Analysis Date: **4/9/2004** SeqNo: **225071**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	ND	0.000050									
alpha-BHC	ND	0.000050									
alpha-Chlordane	ND	0.000050									
beta-BHC	ND	0.000050									
Chlordane	ND	0.00050									
delta-BHC	ND	0.000050									
Dieldrin	ND	0.00010									
Endosulfan I	ND	0.000050									
Endosulfan II	ND	0.00010									
Endosulfan sulfate	ND	0.00010									
Endrin	ND	0.00010									
Endrin aldehyde	ND	0.00010									
Endrin ketone	ND	0.00010									
gamma-BHC	ND	0.000050									
gamma-Chlordane	ND	0.000050									
Heptachlor	ND	0.000050									
Heptachlor epoxide	ND	0.000050									
Methoxychlor	ND	0.00050									
Toxaphene	ND	0.0010									

Sample ID **LCS-9101-PEST** SampType: **LCS** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **GC-ECD_040409B**
Client ID: **ZZZZZ** Batch ID: **9101** TestNo: **SW8081** Analysis Date: **4/9/2004** SeqNo: **225073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.00019	0.00010	0.00025	0	76	30	150	0	0		
4,4'-DDE	0.00018	0.00010	0.00025	0	72	30	150	0	0		
4,4'-DDT	0.0002	0.00010	0.00025	0	80	30	150	0	0		
Aldrin	0.00016	0.000050	0.00025	0	64	30	150	0	0		
alpha-BHC	0.00017	0.000050	0.00025	0	68	30	150	0	0		
alpha-Chlordane	0.00017	0.000050	0.00025	0	68	30	150	0	0		
beta-BHC	0.0002	0.000050	0.00025	0	80	30	150	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9101

Sample ID **LCS-9101-PEST** SampType: **LCS** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **GC-ECD_040409B**
Client ID: **ZZZZZ** Batch ID: **9101** TestNo: **SW8081** Analysis Date: **4/9/2004** SeqNo: **225073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
delta-BHC	0.0002	0.000050	0.00025	0	80	30	150	0	0		
Dieldrin	0.00021	0.00010	0.00025	0	84	30	150	0	0		
Endosulfan I	0.00018	0.000050	0.00025	0	72	30	150	0	0		
Endosulfan II	0.0002	0.00010	0.00025	0	80	30	150	0	0		
Endosulfan sulfate	0.00024	0.00010	0.00025	0	96	30	150	0	0		
Endrin	0.00022	0.00010	0.00025	0	88	30	150	0	0		
Endrin aldehyde	0.00018	0.00010	0.00025	0	72	30	150	0	0		
Endrin ketone	0.0002	0.00010	0.00025	0	80	30	150	0	0		
gamma-BHC	0.00025	0.000050	0.00025	0	100	30	150	0	0		
gamma-Chlordane	0.00018	0.000050	0.00025	0	72	30	150	0	0		
Heptachlor	0.00017	0.000050	0.00025	0	68	30	150	0	0		
Heptachlor epoxide	0.00018	0.000050	0.00025	0	72	30	150	0	0		
Methoxychlor	0.0002	0.00050	0.00025	0	80	30	150	0	0		J

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9143

Sample ID **MB-9143-TPH** SampType: **MBLK** TestCode: **TPH_W** Units: **mg/L** Prep Date: **4/14/2004** Run ID: **GC-FID_040414A**
Client ID: **ZZZZZ** Batch ID: **9143** TestNo: **SW8015M** Analysis Date: **4/14/2004** SeqNo: **226686**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	0.08922	0.10									J*
TPH (Diesel)	ND	0.10									*
TPH (Oil)	0.0613	0.10									J*

Sample ID **LCS-9143-TPH** SampType: **LCS** TestCode: **TPH_W** Units: **mg/L** Prep Date: **4/14/2004** Run ID: **GC-FID_040414A**
Client ID: **ZZZZZ** Batch ID: **9143** TestNo: **SW8015M** Analysis Date: **4/14/2004** SeqNo: **226687**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.6327	0.10	1	0	63.3	30	140	0	0		*

Sample ID **LCSD-9143-TPH** SampType: **LCSD** TestCode: **TPH_W** Units: **mg/L** Prep Date: **4/14/2004** Run ID: **GC-FID_040414A**
Client ID: **ZZZZZ** Batch ID: **9143** TestNo: **SW8015M** Analysis Date: **4/14/2004** SeqNo: **226688**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.677	0.10	1	0	67.7	30	140	0.6327	6.76	25	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9118

Sample ID **IMBW1 4/9/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040409A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/9/2004** SeqNo: **225135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.00257	0.0060									J
Arsenic	ND	0.0020									
Beryllium	ND	0.0010									
Cadmium	ND	0.0010									
Chromium	ND	0.0020									
Copper	ND	0.0050									
Lead	ND	0.0010									
Selenium	ND	0.0020									
Silver	ND	0.0020									
Thallium	0.00021	0.0020									J
Zinc	ND	0.010									

Sample ID **IMBW1 4/9/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040412A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/12/2004** SeqNo: **225397**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.0050									
Iron	ND	0.050									
Nickel	ND	0.0020									

Sample ID **ILCSW1 4/9/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040409A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/9/2004** SeqNo: **225136**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.6238	0.012	0.5	0.00257	124	80	120	0	0		S
Arsenic	0.5157	0.0040	0.5	0	103	80	120	0	0		
Beryllium	0.5051	0.0020	0.5	0	101	80	120	0	0		
Cadmium	0.5279	0.0020	0.5	0	106	80	120	0	0		
Chromium	0.5299	0.0040	0.5	0	106	80	120	0	0		
Copper	0.5395	0.010	0.5	0	108	80	120	0	0		
Lead	0.518	0.0020	0.5	0	104	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9118

Sample ID **ILCSW1 4/9/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040409A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/9/2004** SeqNo: **225136**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.4968	0.0040	0.5	0	99.4	80	120	0	0		
Silver	0.1887	0.0040	0.2	0	94.4	80	120	0	0		
Thallium	0.5133	0.0040	0.5	0.00021	103	80	120	0	0		
Zinc	0.5246	0.020	0.5	0	105	80	120	0	0		

Sample ID **ILCSW1 4/9/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040412A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/12/2004** SeqNo: **225399**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.5175	0.010	0.5	0	104	80	120	0	0		
Iron	2.271	0.10	2	0	114	80	120	0	0		
Nickel	0.5111	0.0040	0.5	0	102	80	120	0	0		

Sample ID **0404058-002BMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040409A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/9/2004** SeqNo: **225140**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.6156	0.0060	0.5	0.00186	123	75	125	0	0		
Arsenic	0.4302	0.0020	0.5	0	86	75	125	0	0		
Beryllium	0.4828	0.0010	0.5	0	96.6	75	125	0	0		
Cadmium	0.4434	0.0010	0.5	0	88.7	75	125	0	0		
Chromium	0.5054	0.0020	0.5	0	101	75	125	0	0		
Lead	0.5285	0.0010	0.5	0	106	75	125	0	0		
Selenium	0.4411	0.0020	0.5	0	88.2	75	125	0	0		
Silver	0.1793	0.0020	0.2	0	89.6	75	125	0	0		
Thallium	0.5287	0.0020	0.5	0.00033	106	75	125	0	0		

Sample ID **0404058-002BMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040412A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/12/2004** SeqNo: **225402**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9118

Sample ID **0404058-002BMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040412A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/12/2004** SeqNo: **225402**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.4499	0.0050	0.5	0	90	75	125	0	0		
Iron	2.209	0.050	2	0.2532	97.8	75	125	0	0		
Nickel	0.455	0.0020	0.5	0	91	75	125	0	0		

Sample ID **0404058-002BMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/Kg** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040413A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/13/2004** SeqNo: **226018**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.4758	0.20	0.5	0	95.2	75	125	0	0		

Sample ID **0404058-002BMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040409A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/9/2004** SeqNo: **225141**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.6128	0.0060	0.5	0.00186	122	75	125	0.6156	0.456	20	
Arsenic	0.4264	0.0020	0.5	0	85.3	75	125	0.4302	0.887	20	
Beryllium	0.474	0.0010	0.5	0	94.8	75	125	0.4828	1.84	20	
Cadmium	0.4435	0.0010	0.5	0	88.7	75	125	0.4434	0.0226	20	
Chromium	0.496	0.0020	0.5	0	99.2	75	125	0.5054	1.88	20	
Lead	0.523	0.0010	0.5	0	105	75	125	0.5285	1.05	20	
Selenium	0.4396	0.0020	0.5	0	87.9	75	125	0.4411	0.341	20	
Silver	0.1794	0.0020	0.2	0	89.7	75	125	0.1793	0.0558	20	
Thallium	0.5199	0.0020	0.5	0.00033	104	75	125	0.5287	1.68	20	

Sample ID **0404058-002BMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040412A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/12/2004** SeqNo: **225403**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.4339	0.0050	0.5	0	86.8	75	125	0.4499	3.62	20	
Iron	2.113	0.050	2	0.2532	93	75	125	2.209	4.44	20	
Nickel	0.439	0.0020	0.5	0	87.8	75	125	0.455	3.58	20	

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9118

Sample ID **0404058-002BMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/Kg** Prep Date: **4/9/2004** Run ID: **ICPMS-2_040413A**
Client ID: **ZZZZZ** Batch ID: **9118** TestNo: **SW6020** Analysis Date: **4/13/2004** SeqNo: **226019**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.4874	0.20	0.5	0	97.5	75	125	0.4758	2.41	20	

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CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9140

Sample ID **0404098-001AMS** SampType: **MS** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **4/13/2004** Run ID: **CETAC_040413C**
Client ID: **ZZZZZ** Batch ID: **9140** TestNo: **SW1311/7470** Analysis Date: **4/13/2004** SeqNo: **225964**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00269	0.00025	0.0025	0.00019	100	75	125	0	0		

Sample ID **0404097-001AMS** SampType: **MS** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **4/14/2004** Run ID: **CETAC_040415A**
Client ID: **ZZZZZ** Batch ID: **9140** TestNo: **SW1311/7470** Analysis Date: **4/15/2004** SeqNo: **226458**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00272	0.00025	0.0025	0	109	75	125	0	0		

Sample ID **0404098-001AMSD** SampType: **MSD** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **4/13/2004** Run ID: **CETAC_040413C**
Client ID: **ZZZZZ** Batch ID: **9140** TestNo: **SW1311/7470** Analysis Date: **4/13/2004** SeqNo: **225965**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00266	0.00025	0.0025	0.00019	98.8	75	125	0.00269	1.12	20	

Sample ID **HGMBW1 4/13/04** SampType: **MBLK** TestCode: **M_HG_WATE** Units: **mg/L** Prep Date: **4/13/2004** Run ID: **CETAC_040413C**
Client ID: **ZZZZZ** Batch ID: **9140** TestNo: **SW7470A** Analysis Date: **4/13/2004** SeqNo: **225959**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID **HGLCSW1 4/13/04** SampType: **LCS** TestCode: **M_HG_WATE** Units: **mg/L** Prep Date: **4/13/2004** Run ID: **CETAC_040413C**
Client ID: **ZZZZZ** Batch ID: **9140** TestNo: **SW7470A** Analysis Date: **4/13/2004** SeqNo: **225960**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00261	0.00025	0.0025	0	104	80	120	0	0		

Qualifiers:
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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9108

Sample ID **MB-9108-TCLP** SampType: **MBLK** TestCode: **SVOC_TCLP** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **SVOC-2_040409B**
Client ID: **ZZZZZ** Batch ID: **9108** TestNo: **SW1311/8270** Analysis Date: **4/10/2004** SeqNo: **224948**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.020									
2,4,5-Trichlorophenol	ND	0.020									
2,4,6-Trichlorophenol	ND	0.020									
2,4-Dinitrotoluene	ND	0.020									
2-methylphenol	ND	0.020									
Hexachlorobenzene	ND	0.020									
Hexachlorobutadiene	ND	0.020									
Hexachloroethane	ND	0.020									
Nitrobenzene	ND	0.020									
Pentachlorophenol	ND	0.050									

Sample ID **MB-9108-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **SVOC-2_040409B**
Client ID: **ZZZZZ** Batch ID: **9108** TestNo: **SW8270C** Analysis Date: **4/9/2004** SeqNo: **224945**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.010									
1,2-Dichlorobenzene	ND	0.010									
1,3-Dichlorobenzene	ND	0.010									
1,4-Dichlorobenzene	ND	0.010									
2, 2'-oxybis(1-Chloropropane)	ND	0.010									
2,4,5-Trichlorophenol	ND	0.010									
2,4,6-Trichlorophenol	ND	0.010									
2,4-Dichlorophenol	ND	0.010									
2,4-Dimethylphenol	ND	0.010									
2,4-Dinitrophenol	ND	0.025									
2,4-Dinitrotoluene	ND	0.010									
2,6-Dinitrotoluene	ND	0.010									
2-Chloronaphthalene	ND	0.010									
2-Chlorophenol	ND	0.010									
2-Methylnaphthalene	ND	0.010									
2-Methylphenol	ND	0.010									

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CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9108

Sample ID	MB-9108-SVOC	SampType:	MBLK	TestCode: SVOC_WATE Units: mg/L	Prep Date:	4/9/2004	Run ID: SVOC-2_040409B
Client ID:	ZZZZZ	Batch ID:	9108	TestNo: SW8270C	Analysis Date:	4/9/2004	SeqNo: 224945

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Nitroaniline	ND	0.025									
2-Nitrophenol	ND	0.010									
3,3'-Dichlorobenzidine	ND	0.020									
3-Nitroaniline	ND	0.025									
4,6-Dinitro-2-methylphenol	ND	0.025									
4-Bromophenyl phenyl ether	ND	0.010									
4-Chloro-3-methylphenol	ND	0.010									
4-Chloroaniline	ND	0.010									
4-Chlorophenyl phenyl ether	ND	0.010									
4-Methylphenol	ND	0.010									
4-Nitroaniline	ND	0.025									
4-Nitrophenol	ND	0.025									
Acenaphthene	ND	0.010									
Acenaphthylene	ND	0.010									
Anthracene	ND	0.010									
Benz(a)anthracene	ND	0.010									
Benzo(a)pyrene	ND	0.010									
Benzo(b)fluoranthene	ND	0.010									
Benzo(g,h,i)perylene	ND	0.010									
Benzo(k)fluoranthene	ND	0.010									
Bis(2-chloroethoxy)methane	ND	0.010									
Bis(2-chloroethyl)ether	ND	0.010									
Bis(2-ethylhexyl)phthalate	ND	0.010									
Butyl benzyl phthalate	ND	0.010									
Carbazole	ND	0.025									
Chrysene	ND	0.010									
Di-n-butyl phthalate	ND	0.010									
Di-n-octyl phthalate	ND	0.010									
Dibenz(a,h)anthracene	ND	0.010									
Dibenzofuran	ND	0.010									
Diethyl phthalate	ND	0.010									

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CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9108

Sample ID **MB-9108-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **SVOC-2_040409B**
Client ID: **ZZZZZ** Batch ID: **9108** TestNo: **SW8270C** Analysis Date: **4/9/2004** SeqNo: **224945**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dimethyl phthalate	ND	0.010									
Fluoranthene	ND	0.010									
Fluorene	ND	0.010									
Hexachlorobenzene	ND	0.010									
Hexachlorobutadiene	ND	0.010									
Hexachlorocyclopentadiene	ND	0.010									
Hexachloroethane	ND	0.010									
Indeno(1,2,3-cd)pyrene	ND	0.010									
Isophorone	ND	0.010									
N-Nitrosodi-n-propylamine	ND	0.010									
N-Nitrosodiphenylamine	ND	0.010									
Naphthalene	ND	0.010									
Nitrobenzene	ND	0.010									
Pentachlorophenol	ND	0.010									
Phenanthrene	ND	0.010									
Phenol	ND	0.010									
Pyrene	ND	0.010									

Sample ID **LCS-9108-SVOC** SampType: **LCS** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **SVOC-2_040409B**
Client ID: **ZZZZZ** Batch ID: **9108** TestNo: **SW8270C** Analysis Date: **4/9/2004** SeqNo: **224946**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.04225	0.010	0.05	0	84.5	31	101	0	0		
1,4-Dichlorobenzene	0.03797	0.010	0.05	0	75.9	27	99	0	0		
2,4-Dinitrotoluene	0.04428	0.010	0.05	0	88.6	44	123	0	0		
2-Chlorophenol	0.08266	0.010	0.1	0	82.7	30	97	0	0		
4-Chloro-3-methylphenol	0.09429	0.010	0.1	0	94.3	43	113	0	0		
4-Nitrophenol	0.04929	0.025	0.1	0	49.3	10	129	0	0		
Acenaphthene	0.04515	0.010	0.05	0	90.3	43	122	0	0		
N-Nitrosodi-n-propylamine	0.0453	0.010	0.05	0	90.6	36	104	0	0		
Pentachlorophenol	0.09391	0.010	0.1	0	93.9	50	113	0	0		

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9108

Sample ID **LCS-9108-SVOC** SampType: **LCS** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **SVOC-2_040409B**
Client ID: **ZZZZZ** Batch ID: **9108** TestNo: **SW8270C** Analysis Date: **4/9/2004** SeqNo: **224946**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	0.04403	0.010	0.1	0	44	12	101	0	0		
Pyrene	0.04526	0.010	0.05	0	90.5	54	131	0	0		

Sample ID **LCSD-9108-SVOC** SampType: **LCSD** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **SVOC-2_040409B**
Client ID: **ZZZZZ** Batch ID: **9108** TestNo: **SW8270C** Analysis Date: **4/10/2004** SeqNo: **224947**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.03839	0.010	0.05	0	76.8	31	101	0.04225	9.57	28	
1,4-Dichlorobenzene	0.03459	0.010	0.05	0	69.2	27	99	0.03797	9.32	28	
2,4-Dinitrotoluene	0.04365	0.010	0.05	0	87.3	44	123	0.04428	1.43	38	
2-Chlorophenol	0.08031	0.010	0.1	0	80.3	30	97	0.08266	2.88	40	
4-Chloro-3-methylphenol	0.09293	0.010	0.1	0	92.9	43	113	0.09429	1.45	42	
4-Nitrophenol	0.04823	0.025	0.1	0	48.2	10	129	0.04929	2.17	50	
Acenaphthene	0.04372	0.010	0.05	0	87.4	43	122	0.04515	3.22	31	
N-Nitrosodi-n-propylamine	0.04385	0.010	0.05	0	87.7	36	104	0.0453	3.25	38	
Pentachlorophenol	0.09014	0.010	0.1	0	90.1	50	113	0.09391	4.10	50	
Phenol	0.04281	0.010	0.1	0	42.8	12	101	0.04403	2.81	42	
Pyrene	0.04484	0.010	0.05	0	89.7	54	131	0.04526	0.932	31	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12151

Sample ID	VBLK041504-1	SampType:	MBLK	TestCode:	VOC_W+	Units:	mg/L	Prep Date:		Run ID:	VOA-1_040415A
Client ID:	ZZZZZ	Batch ID:	R12151	TestNo:	SW8260B			Analysis Date:	4/16/2004	SeqNo:	227003

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0050									
1,1,2,2-Tetrachloroethane	ND	0.0050									
1,1,2-Trichloroethane	ND	0.0050									
1,1-Dichloroethane	ND	0.0050									
1,1-Dichloroethene	ND	0.0050									
1,2-Dibromoethane	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
1,2-Dichloropropane	ND	0.0050									
1,3,5-Trimethylbenzene	ND	0.0050									
1,3-Butadiene	ND	0.010									*
1,4-Dioxane	ND	0.10									
1-Ethyl-2-methylbenzene	ND	0.0050									*
2-Butanone	ND	0.010									
2-Hexanone	ND	0.010									
4-Methyl-2-pentanone	ND	0.010									
Acetone	0.00567	0.010									J
Acrolein	ND	0.050									
Acrylonitrile	ND	0.0050									
Benzene	ND	0.0050									
Bromodichloromethane	ND	0.0050									
Bromoform	ND	0.0050									
Bromomethane	ND	0.010									
Carbon disulfide	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroethane	ND	0.010									
Chloroform	ND	0.0050									
Chloromethane	ND	0.010									
cis-1,2-Dichloroethene	ND	0.0050									
cis-1,3-Dichloropropene	ND	0.0050									
Dibromochloromethane	ND	0.0050									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12151

Sample ID **VBLK041504-1** SampType: **MBLK** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040415A**
Client ID: **ZZZZZ** Batch ID: **R12151** TestNo: **SW8260B** Analysis Date: **4/16/2004** SeqNo: **227003**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	0.0050									
m,p-Xylene	ND	0.0050									
Methylene chloride	ND	0.0050									
Naphthalene	0.0129	0.015									J
o-Xylene	ND	0.0050									
Styrene	ND	0.0050									
Tetrachloroethene	0.00067	0.0050									J
Toluene	ND	0.0050									
trans-1,2-Dichloroethene	ND	0.0050									
trans-1,3-Dichloropropene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									

Sample ID **VLCS041504-1** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040415A**
Client ID: **ZZZZZ** Batch ID: **R12151** TestNo: **SW8260B** Analysis Date: **4/16/2004** SeqNo: **227001**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.04731	0.0050	0.05	0	94.6	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.04984	0.0050	0.05	0	99.7	70	130	0	0		
1,1,2-Trichloroethane	0.04781	0.0050	0.05	0	95.6	70	130	0	0		
1,1-Dichloroethane	0.04661	0.0050	0.05	0	93.2	70	130	0	0		
1,1-Dichloroethene	0.04221	0.0050	0.05	0	84.4	70	130	0	0		
1,2-Dibromoethane	0.04909	0.0050	0.05	0	98.2	70	130	0	0		
1,2-Dichloroethane	0.04704	0.0050	0.05	0	94.1	70	130	0	0		
1,2-Dichloropropane	0.04733	0.0050	0.05	0	94.7	70	130	0	0		
1,3,5-Trimethylbenzene	0.04911	0.0050	0.05	0	98.2	70	130	0	0		
1,4-Dioxane	0.5533	0.10	0.5	0	111	50	150	0	0		
2-Butanone	0.05068	0.010	0.05	0	101	70	130	0	0		
2-Hexanone	0.04793	0.010	0.05	0	95.9	70	130	0	0		
4-Methyl-2-pentanone	0.04806	0.010	0.05	0	96.1	70	130	0	0		
Acetone	0.05092	0.010	0.05	0.00567	90.5	70	130	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12151

Sample ID **VLCS041504-1** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040415A**
Client ID: **ZZZZZ** Batch ID: **R12151** TestNo: **SW8260B** Analysis Date: **4/16/2004** SeqNo: **227001**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acrolein	0.03382	0.050	0.05	0	67.6	50	150	0	0		J
Acrylonitrile	0.04831	0.0050	0.05	0	96.6	70	130	0	0		
Benzene	0.04682	0.0050	0.05	0	93.6	70	130	0	0		
Bromodichloromethane	0.0435	0.0050	0.05	0	87	70	130	0	0		
Bromoform	0.04972	0.0050	0.05	0	99.4	70	130	0	0		
Bromomethane	0.0587	0.010	0.05	0	117	70	130	0	0		
Carbon disulfide	0.04762	0.0050	0.05	0	95.2	70	130	0	0		
Carbon tetrachloride	0.04703	0.0050	0.05	0	94.1	70	130	0	0		
Chlorobenzene	0.04711	0.0050	0.05	0	94.2	70	130	0	0		
Chloroethane	0.04335	0.010	0.05	0	86.7	70	130	0	0		
Chloroform	0.04571	0.0050	0.05	0	91.4	70	130	0	0		
Chloromethane	0.039	0.010	0.05	0	78	70	130	0	0		
cis-1,2-Dichloroethene	0.04525	0.0050	0.05	0	90.5	70	130	0	0		
cis-1,3-Dichloropropene	0.04601	0.0050	0.05	0	92	70	130	0	0		
Dibromochloromethane	0.04849	0.0050	0.05	0	97	70	130	0	0		
Ethylbenzene	0.04775	0.0050	0.05	0	95.5	70	130	0	0		
m,p-Xylene	0.09392	0.0050	0.1	0	93.9	70	130	0	0		
Methylene chloride	0.04557	0.0050	0.05	0	91.1	70	130	0	0		
Naphthalene	0.05563	0.015	0.05	0.0129	85.5	70	130	0	0		
o-Xylene	0.0473	0.0050	0.05	0	94.6	70	130	0	0		
Styrene	0.0469	0.0050	0.05	0	93.8	70	130	0	0		
Tetrachloroethene	0.04799	0.0050	0.05	0.00067	94.6	70	130	0	0		
Toluene	0.04733	0.0050	0.05	0	94.7	70	130	0	0		
trans-1,2-Dichloroethene	0.04595	0.0050	0.05	0	91.9	70	130	0	0		
trans-1,3-Dichloropropene	0.0504	0.0050	0.05	0	101	70	130	0	0		
Trichloroethene	0.04622	0.0050	0.05	0	92.4	70	130	0	0		
Vinyl chloride	0.0473	0.0050	0.05	0	94.6	70	130	0	0		

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12151

Sample ID **VLCSD041504-1** SampType: **LCSD** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040415A**
Client ID: **ZZZZZ** Batch ID: **R12151** TestNo: **SW8260B** Analysis Date: **4/16/2004** SeqNo: **227002**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.0483	0.0050	0.05	0	96.6	70	130	0.04731	2.07	20	
1,1,2,2-Tetrachloroethane	0.05052	0.0050	0.05	0	101	70	130	0.04984	1.36	20	
1,1,2-Trichloroethane	0.04879	0.0050	0.05	0	97.6	70	130	0.04781	2.03	20	
1,1-Dichloroethane	0.04751	0.0050	0.05	0	95	70	130	0.04661	1.91	20	
1,1-Dichloroethene	0.04293	0.0050	0.05	0	85.9	70	130	0.04221	1.69	20	
1,2-Dibromoethane	0.04966	0.0050	0.05	0	99.3	70	130	0.04909	1.15	20	
1,2-Dichloroethane	0.04798	0.0050	0.05	0	96	70	130	0.04704	1.98	20	
1,2-Dichloropropane	0.04892	0.0050	0.05	0	97.8	70	130	0.04733	3.30	20	
1,3,5-Trimethylbenzene	0.0492	0.0050	0.05	0	98.4	70	130	0.04911	0.183	20	
1,3-Butadiene	0.04361	0.010	0.05	0	87.2	70	130	0.04081	6.63	0	*
1,4-Dioxane	0.5698	0.10	0.5	0	114	50	150	0.5533	2.93	20	
1-Ethyl-2-methylbenzene	0.05079	0.0050	0.05	0	102	70	130	0.05071	0.158	20	*
2-Butanone	0.04981	0.010	0.05	0	99.6	70	130	0.05068	1.73	20	
2-Hexanone	0.04734	0.010	0.05	0	94.7	70	130	0.04793	1.24	20	
4-Methyl-2-pentanone	0.04784	0.010	0.05	0	95.7	70	130	0.04806	0.459	20	
Acetone	0.04972	0.010	0.05	0.00567	88.1	70	130	0.05092	2.38	20	
Acrolein	0.03425	0.050	0.05	0	68.5	50	150	0.03382	0	20	J
Acrylonitrile	0.04885	0.0050	0.05	0	97.7	70	130	0.04831	1.11	20	
Benzene	0.04774	0.0050	0.05	0	95.5	70	130	0.04682	1.95	20	
Bromodichloromethane	0.0445	0.0050	0.05	0	89	70	130	0.0435	2.27	20	
Bromoform	0.05082	0.0050	0.05	0	102	70	130	0.04972	2.19	20	
Bromomethane	0.05952	0.010	0.05	0	119	70	130	0.0587	1.39	20	
Carbon disulfide	0.04852	0.0050	0.05	0	97	70	130	0.04762	1.87	20	
Carbon tetrachloride	0.04801	0.0050	0.05	0	96	70	130	0.04703	2.06	20	
Chlorobenzene	0.049	0.0050	0.05	0	98	70	130	0.04711	3.93	20	
Chloroethane	0.04381	0.010	0.05	0	87.6	70	130	0.04335	1.06	20	
Chloroform	0.04662	0.0050	0.05	0	93.2	70	130	0.04571	1.97	20	
Chloromethane	0.03808	0.010	0.05	0	76.2	70	130	0.039	2.39	20	
cis-1,2-Dichloroethene	0.04568	0.0050	0.05	0	91.4	70	130	0.04525	0.946	20	
cis-1,3-Dichloropropene	0.0469	0.0050	0.05	0	93.8	70	130	0.04601	1.92	20	
Dibromochloromethane	0.04983	0.0050	0.05	0	99.7	70	130	0.04849	2.73	20	

Qualifiers:
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B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12151

Sample ID **VLCSD041504-1** SampType: **LCSD** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040415A**
Client ID: **ZZZZZ** Batch ID: **R12151** TestNo: **SW8260B** Analysis Date: **4/16/2004** SeqNo: **227002**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	0.04911	0.0050	0.05	0	98.2	70	130	0.04775	2.81	20	
m,p-Xylene	0.09719	0.0050	0.1	0	97.2	70	130	0.09392	3.42	20	
Methylene chloride	0.04658	0.0050	0.05	0	93.2	70	130	0.04557	2.19	20	
Naphthalene	0.05678	0.015	0.05	0.0129	87.8	70	130	0.05563	2.05	20	
o-Xylene	0.04898	0.0050	0.05	0	98	70	130	0.0473	3.49	20	
Styrene	0.04888	0.0050	0.05	0	97.8	70	130	0.0469	4.13	20	
Tetrachloroethene	0.04797	0.0050	0.05	0.00067	94.6	70	130	0.04799	0.0417	20	
Toluene	0.04812	0.0050	0.05	0	96.2	70	130	0.04733	1.66	20	
trans-1,2-Dichloroethene	0.04661	0.0050	0.05	0	93.2	70	130	0.04595	1.43	20	
trans-1,3-Dichloropropene	0.05277	0.0050	0.05	0	106	70	130	0.0504	4.59	20	
Trichloroethene	0.04774	0.0050	0.05	0	95.5	70	130	0.04622	3.24	20	
Vinyl chloride	0.04698	0.0050	0.05	0	94	70	130	0.0473	0.679	20	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9124

Sample ID **TCNMBW1 040904** SampType: **MBLK** TestCode: **CN_TW** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **LACHAT_040413A**
Client ID: **ZZZZZ** Batch ID: **9124** TestNo: **SW9012A** Analysis Date: **4/13/2004** SeqNo: **225487**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.0050									

Sample ID **TCNLCSW1 040904** SampType: **LCS** TestCode: **CN_TW** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **LACHAT_040413A**
Client ID: **ZZZZZ** Batch ID: **9124** TestNo: **SW9012A** Analysis Date: **4/13/2004** SeqNo: **225488**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.2096	0.0050	0.2	0	105	90	110	0	0		

Sample ID **0404068-001DMS** SampType: **MS** TestCode: **CN_TW** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **LACHAT_040413A**
Client ID: **ZZZZZ** Batch ID: **9124** TestNo: **SW9012A** Analysis Date: **4/13/2004** SeqNo: **225490**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	1.186	0.025	1	0.1068	108	75	125	0	0		

Sample ID **0404068-001DMSD** SampType: **MSD** TestCode: **CN_TW** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **LACHAT_040413A**
Client ID: **ZZZZZ** Batch ID: **9124** TestNo: **SW9012A** Analysis Date: **4/13/2004** SeqNo: **225491**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	1.175	0.025	1	0.1068	107	75	125	1.186	0.891	20	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0404063
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12043

Sample ID **MBLK** SampType: **MBLK** TestCode: **OG_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **BALANCE_040409A**
Client ID: **ZZZZZ** Batch ID: **R12043** TestNo: **E1664** Analysis Date: **4/10/2004** SeqNo: **224938**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	ND	5.0									*

Sample ID **LCS** SampType: **LCS** TestCode: **OG_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **BALANCE_040409A**
Client ID: **ZZZZZ** Batch ID: **R12043** TestNo: **E1664** Analysis Date: **4/10/2004** SeqNo: **224939**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	70.8	5.0	80	0	88.5	78	114	0	0		*

Sample ID **LCSD** SampType: **LCSD** TestCode: **OG_W** Units: **mg/L** Prep Date: **4/9/2004** Run ID: **BALANCE_040409A**
Client ID: **ZZZZZ** Batch ID: **R12043** TestNo: **E1664** Analysis Date: **4/10/2004** SeqNo: **224940**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	70.2	5.0	80	0	87.8	78	114	70.8	0.851	20	*

Qualifiers:
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STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

May 19, 2004

Joan Gonzalez
Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0405043

Dear Joan Gonzalez:

STAT Analysis received 1 sample for the referenced project on 5/6/2004. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: May 19, 2004

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0405043

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0405043-001A	HAS- MWRD-003		5/6/2004 11:35:00 AM	5/6/2004
0405043-001B	HAS- MWRD-003		5/6/2004 11:35:00 AM	5/6/2004
0405043-001C	HAS- MWRD-003		5/6/2004 11:35:00 AM	5/6/2004
0405043-001D	HAS- MWRD-003		5/6/2004 11:35:00 AM	5/6/2004
0405043-001E	HAS- MWRD-003		5/6/2004 11:35:00 AM	5/6/2004

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Date Reported: May 19, 2004
Date Printed: May 19, 2004

Client: Burns & McDonnell
Lab Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0405043-001

Client Sample ID: HAS- MWRD-003
Collection Date: 5/6/2004 11:35:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs		SW8082 (SW3510C)		Prep Date: 5/7/2004		Analyst: ERP
Aroclor 1016	ND	0.00051		mg/L	1	5/8/2004
Aroclor 1221	ND	0.00051		mg/L	1	5/8/2004
Aroclor 1232	ND	0.00051		mg/L	1	5/8/2004
Aroclor 1242	ND	0.00051		mg/L	1	5/8/2004
Aroclor 1248	ND	0.00051		mg/L	1	5/8/2004
Aroclor 1254	ND	0.00051		mg/L	1	5/8/2004
Aroclor 1260	ND	0.00051		mg/L	1	5/8/2004
Pesticides		SW8081 (SW3510C)		Prep Date: 5/7/2004		Analyst: ERP
4,4'-DDD	ND	0.0001		mg/L	1	5/8/2004
4,4'-DDE	ND	0.0001		mg/L	1	5/8/2004
4,4'-DDT	ND	0.0001		mg/L	1	5/8/2004
Aldrin	ND	0.000051		mg/L	1	5/8/2004
alpha-BHC	ND	0.000051		mg/L	1	5/8/2004
alpha-Chlordane	ND	0.000051		mg/L	1	5/8/2004
beta-BHC	ND	0.000051		mg/L	1	5/8/2004
Chlordane	ND	0.00051		mg/L	1	5/8/2004
delta-BHC	ND	0.000051		mg/L	1	5/8/2004
Dieldrin	ND	0.0001		mg/L	1	5/8/2004
Endosulfan I	ND	0.000051		mg/L	1	5/8/2004
Endosulfan II	ND	0.0001		mg/L	1	5/8/2004
Endosulfan sulfate	ND	0.0001		mg/L	1	5/8/2004
Endrin	ND	0.0001		mg/L	1	5/8/2004
Endrin aldehyde	ND	0.0001		mg/L	1	5/8/2004
Endrin ketone	ND	0.0001		mg/L	1	5/8/2004
gamma-BHC	ND	0.000051		mg/L	1	5/8/2004
gamma-Chlordane	ND	0.000051		mg/L	1	5/8/2004
Heptachlor	ND	0.000051		mg/L	1	5/8/2004
Heptachlor epoxide	ND	0.000051		mg/L	1	5/8/2004
Methoxychlor	ND	0.00051		mg/L	1	5/8/2004
Toxaphene	ND	0.001		mg/L	1	5/8/2004
Total Petroleum Hydrocarbons in Water		SW8015M (SW3510C)		Prep Date: 5/11/2004		Analyst: JF
TPH (Gasoline)	0.1	0.1	*	mg/L	1	5/12/2004
TPH (Diesel)	1	0.1	*	mg/L	1	5/12/2004
TPH (Oil)	0.72	0.1	*	mg/L	1	5/12/2004
Mercury		SW7470A		Prep Date: 5/13/2004		Analyst: JG
Mercury	ND	0.00025		mg/L	1	5/14/2004

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Date Reported: May 19, 2004
Date Printed: May 19, 2004

Client: Burns & McDonnell
Lab Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0405043-001

Client Sample ID: HAS- MWRD-003
Collection Date: 5/6/2004 11:35:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3005A)**			Prep Date: **5/14/2004**		Analyst: **BJA**
Antimony	ND	0.006		mg/L	1	5/19/2004
Arsenic	ND	0.004		mg/L	1	5/19/2004
Beryllium	ND	0.002		mg/L	1	5/19/2004
Cadmium	ND	0.002		mg/L	1	5/19/2004
Chromium	ND	0.004		mg/L	1	5/19/2004
Copper	ND	0.01		mg/L	1	5/19/2004
Iron	1.9	0.1		mg/L	1	5/19/2004
Lead	0.009	0.002		mg/L	1	5/19/2004
Nickel	ND	0.004		mg/L	1	5/19/2004
Selenium	ND	0.004		mg/L	1	5/19/2004
Silver	ND	0.004		mg/L	1	5/19/2004
Thallium	ND	0.004		mg/L	1	5/19/2004
Zinc	0.025	0.02		mg/L	1	5/19/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3520C)**			Prep Date: **5/6/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.01		mg/L	1	5/11/2004
1,2-Dichlorobenzene	ND	0.01		mg/L	1	5/11/2004
1,3-Dichlorobenzene	ND	0.01		mg/L	1	5/11/2004
1,4-Dichlorobenzene	ND	0.01		mg/L	1	5/11/2004
2, 2'-oxybis(1-Chloropropane	ND	0.01		mg/L	1	5/11/2004
2,4,5-Trichlorophenol	ND	0.025		mg/L	1	5/11/2004
2,4,6-Trichlorophenol	ND	0.01		mg/L	1	5/11/2004
2,4-Dichlorophenol	ND	0.01		mg/L	1	5/11/2004
2,4-Dimethylphenol	ND	0.01		mg/L	1	5/11/2004
2,4-Dinitrophenol	ND	0.025		mg/L	1	5/11/2004
2,4-Dinitrotoluene	ND	0.01		mg/L	1	5/11/2004
2,6-Dinitrotoluene	ND	0.01		mg/L	1	5/11/2004
2-Chloronaphthalene	ND	0.01		mg/L	1	5/11/2004
2-Chlorophenol	ND	0.01		mg/L	1	5/11/2004
2-Methylnaphthalene	ND	0.01		mg/L	1	5/11/2004
2-Methylphenol	ND	0.01		mg/L	1	5/11/2004
2-Nitroaniline	ND	0.01		mg/L	1	5/11/2004
2-Nitrophenol	ND	0.01		mg/L	1	5/11/2004
3,3'-Dichlorobenzidine	ND	0.01		mg/L	1	5/11/2004
3-Nitroaniline	ND	0.025		mg/L	1	5/11/2004
4,6-Dinitro-2-methylphenol	ND	0.01		mg/L	1	5/11/2004
4-Bromophenyl phenyl ether	ND	0.01		mg/L	1	5/11/2004
4-Chloro-3-methylphenol	ND	0.01		mg/L	1	5/11/2004
4-Chloroaniline	ND	0.01		mg/L	1	5/11/2004

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Date Reported: May 19, 2004
Date Printed: May 19, 2004

Client: Burns & McDonnell
Lab Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0405043-001

Client Sample ID: HAS- MWRD-003
Collection Date: 5/6/2004 11:35:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3520C)**			Prep Date: **5/6/2004**		Analyst: **JF**
4-Chlorophenyl phenyl ether	ND	0.01		mg/L	1	5/11/2004
4-Methylphenol	ND	0.01		mg/L	1	5/11/2004
4-Nitroaniline	ND	0.025		mg/L	1	5/11/2004
4-Nitrophenol	ND	0.025		mg/L	1	5/11/2004
Acenaphthene	ND	0.01		mg/L	1	5/11/2004
Acenaphthylene	ND	0.01		mg/L	1	5/11/2004
Anthracene	ND	0.01		mg/L	1	5/11/2004
Benz(a)anthracene	ND	0.01		mg/L	1	5/11/2004
Benzo(a)pyrene	ND	0.01		mg/L	1	5/11/2004
Benzo(b)fluoranthene	ND	0.01		mg/L	1	5/11/2004
Benzo(g,h,i)perylene	ND	0.01		mg/L	1	5/11/2004
Benzo(k)fluoranthene	ND	0.01		mg/L	1	5/11/2004
Bis(2-chloroethoxy)methane	ND	0.01		mg/L	1	5/11/2004
Bis(2-chloroethyl)ether	ND	0.01		mg/L	1	5/11/2004
Bis(2-chloroisopropyl)ether	ND	0.01		mg/L	1	5/11/2004
Bis(2-ethylhexyl)phthalate	ND	0.01		mg/L	1	5/11/2004
Butyl benzyl phthalate	ND	0.01		mg/L	1	5/11/2004
Carbazole	ND	0.01		mg/L	1	5/11/2004
Chrysene	ND	0.01		mg/L	1	5/11/2004
Di-n-butyl phthalate	ND	0.01		mg/L	1	5/11/2004
Di-n-octyl phthalate	ND	0.01		mg/L	1	5/11/2004
Dibenz(a,h)anthracene	ND	0.01		mg/L	1	5/11/2004
Dibenzofuran	ND	0.01		mg/L	1	5/11/2004
Diethyl phthalate	ND	0.01		mg/L	1	5/11/2004
Dimethyl phthalate	ND	0.01		mg/L	1	5/11/2004
Fluoranthene	ND	0.01		mg/L	1	5/11/2004
Fluorene	ND	0.01		mg/L	1	5/11/2004
Hexachlorobenzene	ND	0.01		mg/L	1	5/11/2004
Hexachlorobutadiene	ND	0.01		mg/L	1	5/11/2004
Hexachlorocyclopentadiene	ND	0.01		mg/L	1	5/11/2004
Hexachloroethane	ND	0.01		mg/L	1	5/11/2004
Indeno(1,2,3-cd)pyrene	ND	0.01		mg/L	1	5/11/2004
Isophorone	ND	0.01		mg/L	1	5/11/2004
N-Nitrosodi-n-propylamine	ND	0.01		mg/L	1	5/11/2004
N-Nitrosodiphenylamine	ND	0.01		mg/L	1	5/11/2004
Naphthalene	ND	0.01		mg/L	1	5/11/2004
Nitrobenzene	ND	0.01		mg/L	1	5/11/2004
Pentachlorophenol	ND	0.025		mg/L	1	5/11/2004

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Date Reported: May 19, 2004
Date Printed: May 19, 2004

Client: Burns & McDonnell
Lab Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0405043-001

Client Sample ID: HAS- MWRD-003
Collection Date: 5/6/2004 11:35:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3520C)**			Prep Date: **5/6/2004**		Analyst: **JF**
Phenanthrene	ND	0.01		mg/L	1	5/11/2004
Phenol	ND	0.01		mg/L	1	5/11/2004
Pyrene	0.01	0.01		mg/L	1	5/11/2004
Volatile Organic Compounds by GC/MS	**SW8260B (SW5030B)**			Prep Date:		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.005		mg/L	1	5/18/2004
1,1,2,2-Tetrachloroethane	ND	0.005		mg/L	1	5/18/2004
1,1,2-Trichloroethane	ND	0.005		mg/L	1	5/18/2004
1,1-Dichloroethane	ND	0.005		mg/L	1	5/18/2004
1,1-Dichloroethene	ND	0.005		mg/L	1	5/18/2004
1,2-Dibromoethane	ND	0.005		mg/L	1	5/18/2004
1,2-Dichloroethane	ND	0.005		mg/L	1	5/18/2004
1,2-Dichloropropane	ND	0.005		mg/L	1	5/18/2004
1,3,5-Trimethylbenzene	ND	0.005		mg/L	1	5/18/2004
1,3-Butadiene	ND	0.01	*	mg/L	1	5/18/2004
1,4-Dioxane	ND	0.1		mg/L	1	5/18/2004
1-Ethyl-2-methylbenzene	ND	0.005	*	mg/L	1	5/18/2004
2-Butanone	ND	0.01		mg/L	1	5/18/2004
2-Hexanone	ND	0.01		mg/L	1	5/18/2004
4-Methyl-2-pentanone	ND	0.01		mg/L	1	5/18/2004
Acetone	ND	0.01		mg/L	1	5/18/2004
Acrolein	ND	0.05		mg/L	1	5/18/2004
Acrylonitrile	ND	0.005		mg/L	1	5/18/2004
Benzene	ND	0.005		mg/L	1	5/18/2004
Bromodichloromethane	ND	0.005		mg/L	1	5/18/2004
Bromoform	ND	0.005		mg/L	1	5/18/2004
Bromomethane	ND	0.01		mg/L	1	5/18/2004
Carbon disulfide	ND	0.005		mg/L	1	5/18/2004
Carbon tetrachloride	ND	0.005		mg/L	1	5/18/2004
Chlorobenzene	ND	0.005		mg/L	1	5/18/2004
Chloroethane	ND	0.01		mg/L	1	5/18/2004
Chloroform	ND	0.005		mg/L	1	5/18/2004
Chloromethane	ND	0.01		mg/L	1	5/18/2004
cis-1,2-Dichloroethene	ND	0.005		mg/L	1	5/18/2004
cis-1,3-Dichloropropene	ND	0.005		mg/L	1	5/18/2004
Dibromochloromethane	ND	0.005		mg/L	1	5/18/2004
Ethylbenzene	ND	0.005		mg/L	1	5/18/2004
m,p-Xylene	ND	0.005		mg/L	1	5/18/2004
Methylene chloride	ND	0.01		mg/L	1	5/18/2004

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Client: Burns & McDonnell
Lab Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0405043-001

Client Sample ID: HAS- MWRD-003
Collection Date: 5/6/2004 11:35:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW8260B (SW5030B)**			Prep Date:		Analyst: **PS**
o-Xylene	ND	0.005		mg/L	1	5/18/2004
Styrene	ND	0.005		mg/L	1	5/18/2004
Tetrachloroethene	ND	0.005		mg/L	1	5/18/2004
Toluene	ND	0.005		mg/L	1	5/18/2004
trans-1,2-Dichloroethene	ND	0.005		mg/L	1	5/18/2004
trans-1,3-Dichloropropene	ND	0.005		mg/L	1	5/18/2004
Trichloroethene	ND	0.005		mg/L	1	5/18/2004
Vinyl chloride	ND	0.01		mg/L	1	5/18/2004
Cyanide, Total	**SW9012A**			Prep Date: **5/13/2004**		Analyst: **YZ**
Cyanide	0.23	0.005		mg/L	1	5/13/2004
Oil and Grease	**E1664**			Prep Date: **5/14/2004**		Analyst: **PMS**
Oil and Grease (HEM)	5.2	5	*	mg/L	1	5/17/2004
pH	**E150.1**			Prep Date: **5/6/2004**		Analyst: **RW**
pH	7.9		*	pH units	1	5/6/2004

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: (312) 733-0551

Document Control No: HAS-011-2004
Lab. Reference No. or Episode No.: 0405043

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type / Matrix: Liquid	Sample Type / Matrix: Solid	Sample Type / Matrix: Gas	Number of Containers	Parameter/Method Code: MWPDGC SDA 202	NAPHTHALENE	TPH-DRO	TPH-GRO	TPH-Motor Oil	TPH as Diesel	TPH as Gasoline	Remarks
HAS	MWRD	003	–	–	–	–	5/6/04	1135	X			10	X	X	X	X	X	X	X	001

5/6/04

Sampler (signature): [signature]

Sampler (signature):

Custody Seal Number: 050604STAT-001 THRU 050604STAT002

Special Instructions: STANDARD TAT!

Relinquished By (signature): [signature]
1.

Date/Time: 5/6/04 1330

Received By (signature): [signature]

Date/Time: 5/6/04 14:00

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt: 3

Relinquished By (signature):
2.

Date/Time:

Received By (signature):

Date/Time:

Laboratory Comments:

STAT Analysis Corporation

Sample Receipt Checklist

Client Name **B&M**

Work Order Numbe **0405044**

Date and Time Received: **05/06/2004**

Received by BJA

Checklist completed b _____ Signature | 5/6/04 Date

Reviewed by cc Initials | 5/7/04 Date

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 5 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☒	Yes ☒	No ☒
Water - Samples properly preserved/ pH checked?	Yes ☒	No ☒	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

STAT Analysis Corporation

Date: 19-May-04

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8260B **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	BR4FBZ	BZMED8	DBFM	DCA12D4				
VBLK051804-1	95.7	99.4	97.1	95.9				
VLCS051804-1	100	100	96.6	94.1				
VLCSD051804-1	99.6	101	101	93.5				
0405043-001A	89.4	101	97.5	91.8				

Acronym		Surrogate	QC Limits
BR4FBZ	=	4-Bromofluorobenzene	86-115
BZMED8	=	Toluene-d8	88-110
DBFM	=	Dibromofluoromethane	86-118
DCA12D4	=	1,2-Dichloroethane-d4	80-120

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

Date: 19-May-04

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8270C **Matrix:** W

Sample ID	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
MB-9375-SVOC	82.6	76.4	77.9	106	75.2	86.4	83.8	88.1
LCS-9375-SVOC	93.6	86.3	86.1	102	90.5	93.9	87.4	85.2
LCSD-9375-SVOC	85.3	77.3	79.5	101	77.9	90.0	82.4	83.6
0405043-001B	74.8	64.3	72.1	107	66.6	83.4	75.1	58.8

Acronym		Surrogate	QC Limits
CLPH2D4	=	2-Chlorophenol-d4	33-110
DCBZ12D4	=	1,2-Dichlorobenzene-d4	16-110
NO2BZD5	=	Nitrobenzene-d5	35-114
PH246BR	=	2,4,6-Tribromophenol	10-123
PH2F	=	2-Fluorophenol	21-110
PHD5	=	Phenol-d5	10-110
PHEN2F	=	2-Fluorobiphenyl	43-116
PHEND14	=	4-Terphenyl-d14	33-141

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **5/6/2004 3:34:02 P**
Prep End Date: **5/10/2004 7:26:52 P**

Prep Batch **9375** Prep Code: **3520_SVOC** Technician: **VA**

Prep Factor Units: **mL / L**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0405020-001A	Water		1	0	0	1	1.000	5/6/2004	5/10/2004
0405020-002A	Water		1	0	0	1	1.000	5/6/2004	5/10/2004
0405020-003A	Water		1	0	0	1	1.000	5/6/2004	5/10/2004
0405043-001B	Water		1	0	0	1	1.000	5/6/2004	5/10/2004
LCS-9375-SVOC			1	0	0	1	1.000	5/6/2004	5/10/2004
LCSD-9375-SVOC			1	0	0	1	1.000	5/6/2004	5/10/2004
MB-9375-SVOC			1	0	0	1	1.000	5/6/2004	5/10/2004

STAT Analysis Corporation

Date: 19-May-04

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8081 **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
MB-9382-PP	54.0	38.0						
LCS-9382-PEST	51.0	45.0						
LCSD-9382-PEST	47.0	30.0						
0405043-001B	50.0	35.0						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

Date: 19-May-04

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8082 **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
MB-9382-PP	119	71.0						
LCS-9382-PCB	119	78.0						
LCSD-9382-PCB	114	82.0						
0405043-001B	119	64.0						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **5/7/2004 9:22:08 A**
Prep End Date: **5/7/2004 9:33:54 P**

Prep Batch **9382** Prep Code: **3510_PP** Technician: **VA**

Prep Factor Units: **mL / L**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0405043-001B	Water		0.99	0	0	10	10.101	5/7/2004	5/7/2004
LCS-9382-PCB			1	0	0	10	10.000	5/7/2004	5/7/2004
LCS-9382-PEST			1	0	0	10	10.000	5/7/2004	5/7/2004
LCSD-9382-PCB			1	0	0	10	10.000	5/7/2004	5/7/2004
LCSD-9382-PEST			1	0	0	10	10.000	5/7/2004	5/7/2004
MB-9382-PP			1	0	0	10	10.000	5/7/2004	5/7/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **5/11/2004 12:37:02**
Prep End Date: **5/11/2004 5:32:00 P**

Prep Batch **9418** Prep Code: **3510_TPH** Technician: **VA**

Prep Factor Units: **mL / L**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0405043-001B	Water		0.99	0	0	1	1.010	5/11/2004	5/11/2004
LCS-9418-TPH			1	0	0	1	1.000	5/11/2004	5/11/2004
LCSD-9418-TPH			1	0	0	1	1.000	5/11/2004	5/11/2004
MB-9418-TPH			1	0	0	1	1.000	5/11/2004	5/11/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **5/14/2004 11:30:00**
Prep End Date: **5/14/2004 5:20:00 P**

Prep Batch **9485** Prep Code: **M_W_PREP** Technician: **DGI**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0404254-021B	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
0404254-022B	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
0404254-023B	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
0404254-024B	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
0404254-025B	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
0404254-026B	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
0404254-027B	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
0404254-027BMS	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
0404254-028B	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
0405043-001C	Water		25	0	0	50	2.000	5/14/2004	5/14/2004
0405047-002B	Soil		20	0	0	50	2.500	5/14/2004	5/14/2004
0405047-002BMS	Soil		10	0	0	50	5.000	5/14/2004	5/14/2004
0405047-002BMSD	Soil		10	0	0	50	5.000	5/14/2004	5/14/2004
0405067-001C	Water		50	0	0	50	1.000	5/14/2004	5/14/2004
0405067-002C	Water		50	0	0	50	1.000	5/14/2004	5/14/2004
0405074-001C	Water		50	0	0	50	1.000	5/14/2004	5/14/2004
0405074-002C	Water		50	0	0	50	1.000	5/14/2004	5/14/2004
0405074-002CMS	Water		50	0	0	50	1.000	5/14/2004	5/14/2004
0405074-002CMSD	Water		50	0	0	50	1.000	5/14/2004	5/14/2004
0405098-001A	Concrete		50	0	0	50	1.000	5/14/2004	5/14/2004
0405098-002A	Concrete		50	0	0	50	1.000	5/14/2004	5/14/2004
0405098-003A	Concrete		50	0	0	50	1.000	5/14/2004	5/14/2004
0405100-001A	Soil		50	0	0	50	1.000	5/14/2004	5/14/2004
ILCSW1 5/14/04			50	0	0	50	1.000	5/14/2004	5/14/2004
IMBTCLP1 5/13/04			50	0	0	50	1.000	5/14/2004	5/14/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **5/14/2004 11:30:00**
Prep End Date: **5/14/2004 5:20:00 P**

Prep Batch **9485** Prep Code: **M_W_PREP** Technician: **DGI**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBW1 5/14/04			50	0	0	50	1.000	5/14/2004	5/14/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **5/13/2004 9:21:00 A**
Prep End Date: **5/13/2004 11:21:00**

Prep Batch **9469** Prep Code: **M_HG_W_PR** Technician: **PMS**

Prep Factor Units: **mL /**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0405043-001C	Water		30	0	0	30	1.000	5/13/2004	5/13/2004
0405047-031B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405047-031BMS	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405058-001C	Water		30	0	0	30	1.000	5/13/2004	5/13/2004
0405058-002C	Water		30	0	0	30	1.000	5/13/2004	5/13/2004
0405058-003C	Water		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-001B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-002B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-003B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-004B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-004BMS	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-004BMSD	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-005B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-006B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-007B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-016B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-017B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405062-018B	Soil		30	0	0	30	1.000	5/13/2004	5/13/2004
0405069-035C	Water		30	0	0	30	1.000	5/13/2004	5/13/2004
0405069-036C	Water		30	0	0	30	1.000	5/13/2004	5/13/2004
0405069-037C	Water		30	0	0	30	1.000	5/13/2004	5/13/2004
0405074-001C	Water		30	0	0	30	1.000	5/13/2004	5/13/2004
0405074-002C	Water		30	0	0	30	1.000	5/13/2004	5/13/2004
HGLCSW1 5/13/04			30	0	0	30	1.000	5/13/2004	5/13/2004
HGMBTCLP1 5/10/04			30	0	0	30	1.000	5/13/2004	5/13/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **5/13/2004 9:21:00 A**
Prep End Date: **5/13/2004 11:21:00**

Prep Batch **9469** Prep Code: **M_HG_W_PR** Technician: **PMS**

Prep Factor Units: **mL /**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
HGMBTCLP1 5/11/04			30	0	0	30	1.000	5/13/2004	5/13/2004
HGMBW1 5/13/04			30	0	0	30	1.000	5/13/2004	5/13/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **5/13/2004 9:00:00 A**
Prep End Date: **5/13/2004 10:45:00**

Prep Batch **9475** Prep Code: **TCNPREP_W** Technician: **YZ**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0405043-001D	Water		50	0	0	50	1.000	5/13/2004	5/13/2004
0405043-001DMS	Water		50	0	0	50	1.000	5/13/2004	5/13/2004
0405043-001DMSD	Water		50	0	0	50	1.000	5/13/2004	5/13/2004
TCNLCSW1 051304			50	0	0	50	1.000	5/13/2004	5/13/2004
TCNMBW1 051304			50	0	0	50	1.000	5/13/2004	5/13/2004

STAT Analysis Corporation

Date: *May 19, 2004*

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9382

Sample ID **MB-9382-PP** SampType: **MBLK** TestCode: **PCB_WATER** Units: **mg/L** Prep Date: **5/7/2004** Run ID: **GC-ECD_040507B**
Client ID: **ZZZZZ** Batch ID: **9382** TestNo: **SW8082** Analysis Date: **5/7/2004** SeqNo: **234417**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.00050									
Aroclor 1221	ND	0.00050									
Aroclor 1232	ND	0.00050									
Aroclor 1242	ND	0.00050									
Aroclor 1248	ND	0.00050									
Aroclor 1254	ND	0.00050									
Aroclor 1260	ND	0.00050									

Sample ID **LCS-9382-PCB** SampType: **LCS** TestCode: **PCB_WATER** Units: **mg/L** Prep Date: **5/7/2004** Run ID: **GC-ECD_040507B**
Client ID: **ZZZZZ** Batch ID: **9382** TestNo: **SW8082** Analysis Date: **5/7/2004** SeqNo: **234418**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.00675	0.00050	0.01	0	67.5	30	150	0	0		
Aroclor 1260	0.01213	0.00050	0.01	0	121	30	150	0	0		

Sample ID **LCSD-9382-PCB** SampType: **LCSD** TestCode: **PCB_WATER** Units: **mg/L** Prep Date: **5/7/2004** Run ID: **GC-ECD_040507B**
Client ID: **ZZZZZ** Batch ID: **9382** TestNo: **SW8082** Analysis Date: **5/7/2004** SeqNo: **234419**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.00813	0.00050	0.01	0	81.3	30	150	0.00675	18.5	25	
Aroclor 1260	0.01247	0.00050	0.01	0	125	30	150	0.01213	2.76	25	

Sample ID **MB-9382-PP** SampType: **MBLK** TestCode: **Pest_WATER** Units: **mg/L** Prep Date: **5/7/2004** Run ID: **GC-ECD_040507B**
Client ID: **ZZZZZ** Batch ID: **9382** TestNo: **SW8081** Analysis Date: **5/7/2004** SeqNo: **234406**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.00010									
4,4'-DDE	ND	0.00010									
4,4'-DDT	ND	0.00010									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9382

Sample ID **MB-9382-PP** SampType: **MBLK** TestCode: **Pest_WATER** Units: **mg/L** Prep Date: **5/7/2004** Run ID: **GC-ECD_040507B**
Client ID: **ZZZZZ** Batch ID: **9382** TestNo: **SW8081** Analysis Date: **5/7/2004** SeqNo: **234406**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	ND	0.000050									
alpha-BHC	ND	0.000050									
alpha-Chlordane	ND	0.000050									
beta-BHC	ND	0.000050									
Chlordane	ND	0.00050									
delta-BHC	ND	0.000050									
Dieldrin	ND	0.00010									
Endosulfan I	ND	0.000050									
Endosulfan II	ND	0.00010									
Endosulfan sulfate	ND	0.00010									
Endrin	ND	0.00010									
Endrin aldehyde	ND	0.00010									
Endrin ketone	ND	0.00010									
gamma-BHC	ND	0.000050									
gamma-Chlordane	ND	0.000050									
Heptachlor	ND	0.000050									
Heptachlor epoxide	ND	0.000050									
Methoxychlor	ND	0.00050									
Toxaphene	ND	0.0010									

Sample ID **LCS-9382-PEST** SampType: **LCS** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **5/7/2004** Run ID: **GC-ECD_040507B**
Client ID: **ZZZZZ** Batch ID: **9382** TestNo: **SW8081** Analysis Date: **5/7/2004** SeqNo: **234407**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.00013	0.00010	0.00025	0	52	30	150	0	0		
4,4'-DDE	0.00013	0.00010	0.00025	0	52	30	150	0	0		
4,4'-DDT	0.00012	0.00010	0.00025	0	48	30	150	0	0		
Aldrin	0.00011	0.000050	0.00025	0	44	30	150	0	0		
alpha-BHC	0.00012	0.000050	0.00025	0	48	30	150	0	0		
alpha-Chlordane	0.00012	0.000050	0.00025	0	48	30	150	0	0		
beta-BHC	0.00014	0.000050	0.00025	0	56	30	150	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9382

Sample ID **LCS-9382-PEST** SampType: **LCS** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **5/7/2004** Run ID: **GC-ECD_040507B**
Client ID: **ZZZZZ** Batch ID: **9382** TestNo: **SW8081** Analysis Date: **5/7/2004** SeqNo: **234407**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
delta-BHC	0.00013	0.000050	0.00025	0	52	30	150	0	0		
Dieldrin	0.00014	0.00010	0.00025	0	56	30	150	0	0		
Endosulfan I	0.00013	0.000050	0.00025	0	52	30	150	0	0		
Endosulfan II	0.00013	0.00010	0.00025	0	52	30	150	0	0		
Endosulfan sulfate	0.00015	0.00010	0.00025	0	60	30	150	0	0		
Endrin	0.00015	0.00010	0.00025	0	60	30	150	0	0		
Endrin aldehyde	0.00016	0.00010	0.00025	0	64	30	150	0	0		
Endrin ketone	0.00016	0.00010	0.00025	0	64	30	150	0	0		
gamma-BHC	0.00013	0.000050	0.00025	0	52	30	150	0	0		
gamma-Chlordane	0.00012	0.000050	0.00025	0	48	30	150	0	0		
Heptachlor	0.00011	0.000050	0.00025	0	44	30	150	0	0		
Heptachlor epoxide	0.00013	0.000050	0.00025	0	52	30	150	0	0		
Methoxychlor	0.00014	0.00050	0.00025	0	56	30	150	0	0		J

Sample ID **LCSD-9382-PEST** SampType: **LCSD** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **5/7/2004** Run ID: **GC-ECD_040507B**
Client ID: **ZZZZZ** Batch ID: **9382** TestNo: **SW8081** Analysis Date: **5/7/2004** SeqNo: **234408**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.00013	0.00010	0.00025	0	52	30	150	0.00013	0	25	
4,4'-DDE	0.00012	0.00010	0.00025	0	48	30	150	0.00013	8.00	25	
4,4'-DDT	0.00012	0.00010	0.00025	0	48	30	150	0.00012	0	25	
Aldrin	0.00009	0.000050	0.00025	0	36	30	150	0.00011	20.0	25	
alpha-BHC	0.00011	0.000050	0.00025	0	44	30	150	0.00012	8.70	25	
alpha-Chlordane	0.00012	0.000050	0.00025	0	48	30	150	0.00012	0	25	
beta-BHC	0.00014	0.000050	0.00025	0	56	30	150	0.00014	0	25	
delta-BHC	0.00013	0.000050	0.00025	0	52	30	150	0.00013	0	25	
Dieldrin	0.00014	0.00010	0.00025	0	56	30	150	0.00014	0	25	
Endosulfan I	0.00012	0.000050	0.00025	0	48	30	150	0.00013	8.00	25	
Endosulfan II	0.00013	0.00010	0.00025	0	52	30	150	0.00013	0	25	
Endosulfan sulfate	0.00015	0.00010	0.00025	0	60	30	150	0.00015	0	25	
Endrin	0.00015	0.00010	0.00025	0	60	30	150	0.00015	0	25	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9382

Sample ID **LCSD-9382-PEST** SampType: **LCSD** TestCode: **PEST_WATE** Units: **mg/L** Prep Date: **5/7/2004** Run ID: **GC-ECD_040507B**
Client ID: **ZZZZZ** Batch ID: **9382** TestNo: **SW8081** Analysis Date: **5/7/2004** SeqNo: **234408**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Endrin aldehyde	0.00016	0.00010	0.00025	0	64	30	150	0.00016	0	25	
Endrin ketone	0.00017	0.00010	0.00025	0	68	30	150	0.00016	6.06	25	
gamma-BHC	0.00012	0.000050	0.00025	0	48	30	150	0.00013	8.00	25	
gamma-Chlordane	0.00011	0.000050	0.00025	0	44	30	150	0.00012	8.70	25	
Heptachlor	0.0001	0.000050	0.00025	0	40	30	150	0.00011	9.52	25	
Heptachlor epoxide	0.00012	0.000050	0.00025	0	48	30	150	0.00013	8.00	25	
Methoxychlor	0.00015	0.00050	0.00025	0	60	30	150	0.00014	0	25	J

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9418

Sample ID **MB-9418-TPH** SampType: **MBLK** TestCode: **TPH_W** Units: **mg/L** Prep Date: **5/11/2004** Run ID: **GC-FID_040512A**
Client ID: **ZZZZZ** Batch ID: **9418** TestNo: **SW8015M** Analysis Date: **5/12/2004** SeqNo: **235308**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	0.03713	0.10									J*
TPH (Diesel)	0.01803	0.10									J*
TPH (Oil)	0.01374	0.10									J*

Sample ID **LCS-9418-TPH** SampType: **LCS** TestCode: **TPH_W** Units: **mg/L** Prep Date: **5/11/2004** Run ID: **GC-FID_040512A**
Client ID: **ZZZZZ** Batch ID: **9418** TestNo: **SW8015M** Analysis Date: **5/12/2004** SeqNo: **235309**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.4761	0.10	0.5	0.01803	91.6	30	140	0	0		*

Sample ID **LCSD-9418-TPH** SampType: **LCSD** TestCode: **TPH_W** Units: **mg/L** Prep Date: **5/11/2004** Run ID: **GC-FID_040512A**
Client ID: **ZZZZZ** Batch ID: **9418** TestNo: **SW8015M** Analysis Date: **5/12/2004** SeqNo: **235310**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.4429	0.10	0.5	0.01803	85	30	140	0.4761	7.24	25	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9469

Sample ID **HGMBTCLP1 5/10/0** SampType: **MBLK** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **5/13/2004** Run ID: **CETAC_040514A**
Client ID: **ZZZZZ** Batch ID: **9469** TestNo: **SW1311/7470** Analysis Date: **5/14/2004** SeqNo: **236424**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID **HGMBTCLP1 5/11/0** SampType: **MBLK** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **5/13/2004** Run ID: **CETAC_040514A**
Client ID: **ZZZZZ** Batch ID: **9469** TestNo: **SW1311/7470** Analysis Date: **5/14/2004** SeqNo: **236438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025	0	0	0	0	0	0	0		

Sample ID **0405047-031BMS** SampType: **MS** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **5/13/2004** Run ID: **CETAC_040514A**
Client ID: **ZZZZZ** Batch ID: **9469** TestNo: **SW1311/7470** Analysis Date: **5/14/2004** SeqNo: **236435**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00267	0.00025	0.0025	0	107	75	125	0	0		

Sample ID **0405062-004BMS** SampType: **MS** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **5/13/2004** Run ID: **CETAC_040514A**
Client ID: **ZZZZZ** Batch ID: **9469** TestNo: **SW1311/7470** Analysis Date: **5/14/2004** SeqNo: **236440**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00266	0.00025	0.0025	0	106	75	125	0	0		

Sample ID **0405062-004BMSD** SampType: **MSD** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **5/13/2004** Run ID: **CETAC_040514A**
Client ID: **ZZZZZ** Batch ID: **9469** TestNo: **SW1311/7470** Analysis Date: **5/14/2004** SeqNo: **236441**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00275	0.00025	0.0025	0	110	75	125	0.00266	3.33	20	

Sample ID **HGMBW1 5/13/04** SampType: **MBLK** TestCode: **M_HG_WATE** Units: **mg/L** Prep Date: **5/13/2004** Run ID: **CETAC_040514A**
Client ID: **ZZZZZ** Batch ID: **9469** TestNo: **SW7470A** Analysis Date: **5/14/2004** SeqNo: **236422**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
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* - Non Accredited Parameter
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9469

Sample ID **HGMBW1 5/13/04** SampType: **MBLK** TestCode: **M_HG_WATE** Units: **mg/L** Prep Date: **5/13/2004** Run ID: **CETAC_040514A**
Client ID: **ZZZZZ** Batch ID: **9469** TestNo: **SW7470A** Analysis Date: **5/14/2004** SeqNo: **236422**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID **HGLCSW1 5/13/04** SampType: **LCS** TestCode: **M_HG_WATE** Units: **mg/L** Prep Date: **5/13/2004** Run ID: **CETAC_040514A**
Client ID: **ZZZZZ** Batch ID: **9469** TestNo: **SW7470A** Analysis Date: **5/14/2004** SeqNo: **236423**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0024	0.00025	0.0025	0	96	80	120	0	0		

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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9485

Sample ID **IMBTCLP1 5/13/04** SampType: **MBLK** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **5/14/2004** Run ID: **ICPMS-2_040514A**
Client ID: **ZZZZZ** Batch ID: **9485** TestNo: **SW1311/6020** Analysis Date: **5/14/2004** SeqNo: **236660**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.015									
Arsenic	ND	0.010									
Beryllium	ND	0.0050									
Cadmium	ND	0.0050									
Chromium	0.00302	0.010									J
Copper	0.04421	0.025									
Iron	ND	0.25									
Lead	ND	0.0050									
Nickel	0.00973	0.010									J
Selenium	ND	0.010									
Silver	ND	0.010									
Thallium	ND	0.010									
Zinc	ND	0.050									

Sample ID **0404254-027BMS** SampType: **MS** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **5/14/2004** Run ID: **ICPMS-2_040514A**
Client ID: **ZZZZZ** Batch ID: **9485** TestNo: **SW1311/6020** Analysis Date: **5/14/2004** SeqNo: **236670**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.607	0.015	0.5	0	121	75	125	0	0		
Arsenic	0.5092	0.010	0.5	0	102	75	125	0	0		
Beryllium	0.4925	0.0050	0.5	0	98.5	75	125	0	0		
Cadmium	0.4661	0.0050	0.5	0.00624	92	75	125	0	0		
Chromium	0.5075	0.010	0.5	0.00263	101	75	125	0	0		
Copper	0.4977	0.025	0.5	0.03334	92.9	75	125	0	0		B
Iron	2.93	0.25	2	0.8564	104	75	125	0	0		
Lead	0.5615	0.0050	0.5	0.0117	110	75	125	0	0		
Nickel	0.4785	0.010	0.5	0.00953	93.8	75	125	0	0		
Selenium	0.4597	0.010	0.5	0	91.9	75	125	0	0		
Silver	0.2036	0.010	0.2	0	102	75	125	0	0		
Thallium	0.5522	0.010	0.5	0	110	75	125	0	0		
Zinc	0.6066	0.050	0.5	0.2079	79.7	75	125	0	0		

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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9485

Sample ID **IMBW1 5/14/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **5/14/2004** Run ID: **ICPMS-2_040514A**
Client ID: **ZZZZZ** Batch ID: **9485** TestNo: **SW6020** Analysis Date: **5/14/2004** SeqNo: **236657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.0040									
Beryllium	ND	0.0020									
Cadmium	ND	0.0020									
Chromium	ND	0.0040									
Copper	ND	0.010									
Iron	ND	0.10									
Lead	ND	0.0020									
Nickel	ND	0.0040									
Selenium	ND	0.0040									
Silver	ND	0.0040									
Thallium	ND	0.0040									
Zinc	ND	0.020									

Sample ID **ILCSW1 5/14/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **5/14/2004** Run ID: **ICPMS-2_040514A**
Client ID: **ZZZZZ** Batch ID: **9485** TestNo: **SW6020** Analysis Date: **5/14/2004** SeqNo: **236658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.5803	0.012	0.5	0	116	80	120	0	0		
Arsenic	0.4908	0.0040	0.5	0	98.2	80	120	0	0		
Beryllium	0.4882	0.0020	0.5	0	97.6	80	120	0	0		
Cadmium	0.5095	0.0020	0.5	0	102	80	120	0	0		
Chromium	0.5037	0.0040	0.5	0	101	80	120	0	0		
Copper	0.5147	0.010	0.5	0	103	80	120	0	0		
Iron	2.188	0.10	2	0	109	80	120	0	0		
Lead	0.5002	0.0020	0.5	0	100	80	120	0	0		
Nickel	0.5014	0.0040	0.5	0	100	80	120	0	0		
Selenium	0.4819	0.0040	0.5	0	96.4	80	120	0	0		
Silver	0.2081	0.0040	0.2	0	104	80	120	0	0		
Thallium	0.4927	0.0040	0.5	0	98.5	80	120	0	0		
Zinc	0.5143	0.020	0.5	0	103	80	120	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9485

Sample ID **0405074-002CMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **5/14/2004** Run ID: **ICPMS-2_040514A**
Client ID: **ZZZZZ** Batch ID: **9485** TestNo: **SW6020** Analysis Date: **5/14/2004** SeqNo: **236831**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.5999	0.012	0.5	0.00406	119	75	125	0	0		
Arsenic	0.5833	0.0040	0.5	0.05892	105	75	125	0	0		
Beryllium	0.505	0.0020	0.5	0	101	75	125	0	0		
Cadmium	0.4845	0.0020	0.5	0	96.9	75	125	0	0		
Chromium	1.444	0.0040	0.5	0.8217	124	75	125	0	0		
Copper	0.5052	0.010	0.5	0.03615	93.8	75	125	0	0		
Iron	58.56	0.10	2	49.79	438	75	125	0	0		S
Lead	0.615	0.0020	0.5	0.05315	112	75	125	0	0		
Nickel	0.6115	0.0040	0.5	0.1738	87.5	75	125	0	0		
Selenium	0.4642	0.0040	0.5	0.00244	92.4	75	125	0	0		
Silver	0.2006	0.0040	0.2	0	100	75	125	0	0		
Thallium	0.5556	0.0040	0.5	0.00085	111	75	125	0	0		
Zinc	0.5331	0.020	0.5	0.1051	85.6	75	125	0	0		

Sample ID **0405074-002CMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **5/14/2004** Run ID: **ICPMS-2_040514A**
Client ID: **ZZZZZ** Batch ID: **9485** TestNo: **SW6020** Analysis Date: **5/14/2004** SeqNo: **236832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.5671	0.012	0.5	0.00406	113	75	125	0.5999	5.62	20	
Arsenic	0.5548	0.0040	0.5	0.05892	99.2	75	125	0.5833	5.01	20	
Beryllium	0.4824	0.0020	0.5	0	96.5	75	125	0.505	4.58	20	
Cadmium	0.4597	0.0020	0.5	0	91.9	75	125	0.4845	5.25	20	
Chromium	1.364	0.0040	0.5	0.8217	108	75	125	1.444	5.70	20	
Copper	0.4848	0.010	0.5	0.03615	89.7	75	125	0.5052	4.12	20	
Iron	54.8	0.10	2	49.79	250	75	125	58.56	6.63	20	S
Lead	0.582	0.0020	0.5	0.05315	106	75	125	0.615	5.51	20	
Nickel	0.5901	0.0040	0.5	0.1738	83.3	75	125	0.6115	3.56	20	
Selenium	0.4428	0.0040	0.5	0.00244	88.1	75	125	0.4642	4.72	20	
Silver	0.1917	0.0040	0.2	0	95.8	75	125	0.2006	4.54	20	
Thallium	0.5286	0.0040	0.5	0.00085	106	75	125	0.5556	4.98	20	
Zinc	0.5116	0.020	0.5	0.1051	81.3	75	125	0.5331	4.12	20	

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CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9375

Sample ID **MB-9375-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **5/6/2004** Run ID: **SVOC-2_040510B**
Client ID: **ZZZZZ** Batch ID: **9375** TestNo: **SW8270C** Analysis Date: **5/10/2004** SeqNo: **234706**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.010									
1,2-Dichlorobenzene	ND	0.010									
1,3-Dichlorobenzene	ND	0.010									
1,4-Dichlorobenzene	ND	0.010									
2, 2'-oxybis(1-Chloropropane)	ND	0.010									
2,4,5-Trichlorophenol	ND	0.010									
2,4,6-Trichlorophenol	ND	0.010									
2,4-Dichlorophenol	ND	0.010									
2,4-Dimethylphenol	ND	0.010									
2,4-Dinitrophenol	ND	0.025									
2,4-Dinitrotoluene	ND	0.010									
2,6-Dinitrotoluene	ND	0.010									
2-Chloronaphthalene	ND	0.010									
2-Chlorophenol	ND	0.010									
2-Methylnaphthalene	ND	0.010									
2-Methylphenol	ND	0.010									
2-Nitroaniline	ND	0.025									
2-Nitrophenol	ND	0.010									
3,3'-Dichlorobenzidine	ND	0.020									
3-Nitroaniline	ND	0.025									
4,6-Dinitro-2-methylphenol	ND	0.025									
4-Bromophenyl phenyl ether	ND	0.010									
4-Chloro-3-methylphenol	ND	0.010									
4-Chloroaniline	ND	0.010									
4-Chlorophenyl phenyl ether	ND	0.010									
4-Methylphenol	ND	0.010									
4-Nitroaniline	ND	0.025									
4-Nitrophenol	ND	0.025									
Acenaphthene	ND	0.010									
Acenaphthylene	ND	0.010									
Anthracene	ND	0.010									

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CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9375

Sample ID	MB-9375-SVOC	SampType:	MBLK	TestCode:	SVOC_WATE	Units:	mg/L	Prep Date:	5/6/2004	Run ID:	SVOC-2_040510B
Client ID:	ZZZZZ	Batch ID:	9375	TestNo:	SW8270C			Analysis Date:	5/10/2004	SeqNo:	234706

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	0.010									
Benzo(a)pyrene	ND	0.010									
Benzo(b)fluoranthene	ND	0.010									
Benzo(g,h,i)perylene	ND	0.010									
Benzo(k)fluoranthene	ND	0.010									
Bis(2-chloroethoxy)methane	ND	0.010									
Bis(2-chloroethyl)ether	ND	0.010									
Bis(2-ethylhexyl)phthalate	0.00175	0.010									J
Butyl benzyl phthalate	ND	0.010									
Carbazole	ND	0.025									
Chrysene	ND	0.010									
Di-n-butyl phthalate	0.00144	0.010									J
Di-n-octyl phthalate	ND	0.010									
Dibenz(a,h)anthracene	ND	0.010									
Dibenzofuran	ND	0.010									
Diethyl phthalate	ND	0.010									
Dimethyl phthalate	ND	0.010									
Fluoranthene	ND	0.010									
Fluorene	ND	0.010									
Hexachlorobenzene	ND	0.010									
Hexachlorobutadiene	ND	0.010									
Hexachlorocyclopentadiene	ND	0.010									
Hexachloroethane	ND	0.010									
Indeno(1,2,3-cd)pyrene	ND	0.010									
Isophorone	ND	0.010									
N-Nitrosodi-n-propylamine	ND	0.010									
N-Nitrosodiphenylamine	ND	0.010									
Naphthalene	ND	0.010									
Nitrobenzene	ND	0.010									
Pentachlorophenol	ND	0.010									
Phenanthrene	ND	0.010									

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CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9375

Sample ID **MB-9375-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **5/6/2004** Run ID: **SVOC-2_040510B**
Client ID: **ZZZZZ** Batch ID: **9375** TestNo: **SW8270C** Analysis Date: **5/10/2004** SeqNo: **234706**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	0.010									
Pyrene	ND	0.010									

Sample ID **LCS-9375-SVOC** SampType: **LCS** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **5/6/2004** Run ID: **SVOC-2_040510B**
Client ID: **ZZZZZ** Batch ID: **9375** TestNo: **SW8270C** Analysis Date: **5/10/2004** SeqNo: **234707**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.04753	0.010	0.05	0	95.1	31	101	0	0		
1,4-Dichlorobenzene	0.04292	0.010	0.05	0	85.8	27	99	0	0		
2,4-Dinitrotoluene	0.04331	0.010	0.05	0	86.6	44	123	0	0		
2-Chlorophenol	0.09416	0.010	0.1	0	94.2	30	97	0	0		
4-Chloro-3-methylphenol	0.08649	0.010	0.1	0	86.5	43	113	0	0		
4-Nitrophenol	0.09939	0.025	0.1	0	99.4	10	129	0	0		
Acenaphthene	0.04697	0.010	0.05	0	93.9	43	122	0	0		
N-Nitrosodi-n-propylamine	0.04213	0.010	0.05	0	84.3	36	104	0	0		
Pentachlorophenol	0.07964	0.010	0.1	0	79.6	50	113	0	0		
Phenol	0.08925	0.010	0.1	0	89.2	12	101	0	0		
Pyrene	0.04491	0.010	0.05	0	89.8	54	131	0	0		

Sample ID **LCSD-9375-SVOC** SampType: **LCSD** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **5/6/2004** Run ID: **SVOC-2_040510B**
Client ID: **ZZZZZ** Batch ID: **9375** TestNo: **SW8270C** Analysis Date: **5/10/2004** SeqNo: **234708**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.04509	0.010	0.05	0	90.2	31	101	0.04753	5.27	28	
1,4-Dichlorobenzene	0.03917	0.010	0.05	0	78.3	27	99	0.04292	9.14	28	
2,4-Dinitrotoluene	0.04455	0.010	0.05	0	89.1	44	123	0.04331	2.82	38	
2-Chlorophenol	0.08694	0.010	0.1	0	86.9	30	97	0.09416	7.97	40	
4-Chloro-3-methylphenol	0.08778	0.010	0.1	0	87.8	43	113	0.08649	1.48	42	
4-Nitrophenol	0.1056	0.025	0.1	0	106	10	129	0.09939	6.02	50	
Acenaphthene	0.04698	0.010	0.05	0	94	43	122	0.04697	0.0213	31	
N-Nitrosodi-n-propylamine	0.04169	0.010	0.05	0	83.4	36	104	0.04213	1.05	38	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9375

Sample ID **LCSD-9375-SVOC** SampType: **LCSD** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **5/6/2004** Run ID: **SVOC-2_040510B**
Client ID: **ZZZZZ** Batch ID: **9375** TestNo: **SW8270C** Analysis Date: **5/10/2004** SeqNo: **234708**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pentachlorophenol	0.0844	0.010	0.1	0	84.4	50	113	0.07964	5.80	50	
Phenol	0.08468	0.010	0.1	0	84.7	12	101	0.08925	5.25	42	
Pyrene	0.04408	0.010	0.05	0	88.2	54	131	0.04491	1.87	31	

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12624

Sample ID **VBLK051804-1** SampType: **MBLK** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040518A**
Client ID: **ZZZZZ** Batch ID: **R12624** TestNo: **SW8260B** Analysis Date: **5/18/2004** SeqNo: **237578**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0050									
1,1,2,2-Tetrachloroethane	ND	0.0050									
1,1,2-Trichloroethane	ND	0.0050									
1,1-Dichloroethane	ND	0.0050									
1,1-Dichloroethene	ND	0.0050									
1,2-Dibromoethane	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
1,2-Dichloropropane	ND	0.0050									
1,3,5-Trimethylbenzene	ND	0.0050									
1,3-Butadiene	ND	0.010									*
1,4-Dioxane	ND	0.10									
1-Ethyl-2-methylbenzene	ND	0.0050									*
2-Butanone	ND	0.010									
2-Hexanone	ND	0.010									
4-Methyl-2-pentanone	ND	0.010									
Acetone	ND	0.010									
Acrolein	ND	0.050									
Acrylonitrile	ND	0.0050									
Benzene	ND	0.0050									
Bromodichloromethane	ND	0.0050									
Bromoform	ND	0.0050									
Bromomethane	ND	0.010									
Carbon disulfide	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroethane	ND	0.010									
Chloroform	ND	0.0050									
Chloromethane	ND	0.010									
cis-1,2-Dichloroethene	ND	0.0050									
cis-1,3-Dichloropropene	ND	0.0050									
Dibromochloromethane	ND	0.0050									

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12624

Sample ID **VBLK051804-1** SampType: **MBLK** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040518A**
Client ID: **ZZZZZ** Batch ID: **R12624** TestNo: **SW8260B** Analysis Date: **5/18/2004** SeqNo: **237578**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	0.0050									
m,p-Xylene	ND	0.0050									
Methylene chloride	ND	0.0050									
o-Xylene	ND	0.0050									
Styrene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	ND	0.0050									
trans-1,2-Dichloroethene	ND	0.0050									
trans-1,3-Dichloropropene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									

Sample ID **VLCS051804-1** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040518A**
Client ID: **ZZZZZ** Batch ID: **R12624** TestNo: **SW8260B** Analysis Date: **5/18/2004** SeqNo: **237579**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05485	0.0050	0.05	0	110	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.04707	0.0050	0.05	0	94.1	70	130	0	0		
1,1,2-Trichloroethane	0.04623	0.0050	0.05	0	92.5	70	130	0	0		
1,1-Dichloroethane	0.0543	0.0050	0.05	0	109	70	130	0	0		
1,1-Dichloroethene	0.04332	0.0050	0.05	0	86.6	70	130	0	0		
1,2-Dibromoethane	0.04601	0.0050	0.05	0	92	70	130	0	0		
1,2-Dichloroethane	0.04943	0.0050	0.05	0	98.9	70	130	0	0		
1,2-Dichloropropane	0.05351	0.0050	0.05	0	107	70	130	0	0		
1,3,5-Trimethylbenzene	0.06226	0.0050	0.05	0	125	70	130	0	0		
1,4-Dioxane	0.3594	0.10	0.5	0	71.9	50	150	0	0		
2-Butanone	0.0474	0.010	0.05	0	94.8	70	130	0	0		
2-Hexanone	0.03941	0.010	0.05	0	78.8	70	130	0	0		
4-Methyl-2-pentanone	0.0376	0.010	0.05	0	75.2	70	130	0	0		
Acetone	0.04493	0.010	0.05	0	89.9	50	150	0	0		
Acrolein	0.03412	0.050	0.05	0	68.2	50	150	0	0		J

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CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12624

Sample ID **VLCS051804-1** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040518A**
Client ID: **ZZZZZ** Batch ID: **R12624** TestNo: **SW8260B** Analysis Date: **5/18/2004** SeqNo: **237579**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acrylonitrile	0.04262	0.0050	0.05	0	85.2	70	130	0	0		
Benzene	0.05433	0.0050	0.05	0	109	70	130	0	0		
Bromodichloromethane	0.04851	0.0050	0.05	0	97	70	130	0	0		
Bromoform	0.04293	0.0050	0.05	0	85.9	70	130	0	0		
Bromomethane	0.03573	0.010	0.05	0	71.5	70	130	0	0		
Carbon disulfide	0.05951	0.0050	0.05	0	119	70	130	0	0		
Carbon tetrachloride	0.05165	0.0050	0.05	0	103	70	130	0	0		
Chlorobenzene	0.05543	0.0050	0.05	0	111	70	130	0	0		
Chloroethane	0.05149	0.010	0.05	0	103	70	130	0	0		
Chloroform	0.05367	0.0050	0.05	0	107	70	130	0	0		
Chloromethane	0.04289	0.010	0.05	0	85.8	70	130	0	0		
cis-1,2-Dichloroethene	0.05241	0.0050	0.05	0	105	70	130	0	0		
cis-1,3-Dichloropropene	0.0527	0.0050	0.05	0	105	70	130	0	0		
Dibromochloromethane	0.04763	0.0050	0.05	0	95.3	70	130	0	0		
Ethylbenzene	0.05833	0.0050	0.05	0	117	70	130	0	0		
m,p-Xylene	0.1134	0.0050	0.1	0	113	70	130	0	0		
Methylene chloride	0.05018	0.0050	0.05	0	100	70	130	0	0		
o-Xylene	0.05583	0.0050	0.05	0	112	70	130	0	0		
Styrene	0.05493	0.0050	0.05	0	110	70	130	0	0		
Tetrachloroethene	0.05625	0.0050	0.05	0	112	70	130	0	0		
Toluene	0.05526	0.0050	0.05	0	111	70	130	0	0		
trans-1,2-Dichloroethene	0.05374	0.0050	0.05	0	107	70	130	0	0		
trans-1,3-Dichloropropene	0.0541	0.0050	0.05	0	108	70	130	0	0		
Trichloroethene	0.05256	0.0050	0.05	0	105	70	130	0	0		
Vinyl chloride	0.05662	0.0050	0.05	0	113	70	130	0	0		

Sample ID **VLCSD051804-1** SampType: **LCSD** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040518A**
Client ID: **ZZZZZ** Batch ID: **R12624** TestNo: **SW8260B** Analysis Date: **5/18/2004** SeqNo: **237580**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.04867	0.0050	0.05	0	97.3	70	130	0.05485	11.9	20	

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CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12624

Sample ID **VLCSD051804-1** SampType: **LCSD** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040518A**
Client ID: **ZZZZZ** Batch ID: **R12624** TestNo: **SW8260B** Analysis Date: **5/18/2004** SeqNo: **237580**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	0.04278	0.0050	0.05	0	85.6	70	130	0.04707	9.55	20	
1,1,2-Trichloroethane	0.04174	0.0050	0.05	0	83.5	70	130	0.04623	10.2	20	
1,1-Dichloroethane	0.04986	0.0050	0.05	0	99.7	70	130	0.0543	8.53	20	
1,1-Dichloroethene	0.04947	0.0050	0.05	0	98.9	70	130	0.04332	13.3	20	
1,2-Dibromoethane	0.04219	0.0050	0.05	0	84.4	70	130	0.04601	8.66	20	
1,2-Dichloroethane	0.04618	0.0050	0.05	0	92.4	70	130	0.04943	6.80	20	
1,2-Dichloropropane	0.0479	0.0050	0.05	0	95.8	70	130	0.05351	11.1	20	
1,3,5-Trimethylbenzene	0.05386	0.0050	0.05	0	108	70	130	0.06226	14.5	20	
1,3-Butadiene	0.04664	0.010	0.05	0	93.3	70	130	0.04665	0.0214	0	*
1,4-Dioxane	0.3803	0.10	0.5	0	76.1	50	150	0.3594	5.63	20	
1-Ethyl-2-methylbenzene	0.05376	0.0050	0.05	0	108	70	130	0.06231	14.7	20	*
2-Butanone	0.04452	0.010	0.05	0	89	70	130	0.0474	6.27	20	
2-Hexanone	0.0337	0.010	0.05	0	67.4	70	130	0.03941	15.6	20	S
4-Methyl-2-pentanone	0.03695	0.010	0.05	0	73.9	70	130	0.0376	1.74	20	
Acetone	0.03818	0.010	0.05	0	76.4	50	150	0.04493	16.2	20	
Acrolein	0.02662	0.050	0.05	0	53.2	50	150	0.03412	0	20	J
Acrylonitrile	0.04582	0.0050	0.05	0	91.6	70	130	0.04262	7.24	20	
Benzene	0.0482	0.0050	0.05	0	96.4	70	130	0.05433	12.0	20	
Bromodichloromethane	0.04379	0.0050	0.05	0	87.6	70	130	0.04851	10.2	20	
Bromoform	0.04026	0.0050	0.05	0	80.5	70	130	0.04293	6.42	20	
Bromomethane	0.05194	0.010	0.05	0	104	70	130	0.03573	37.0	20	R
Carbon disulfide	0.06431	0.0050	0.05	0	129	70	130	0.05951	7.75	20	
Carbon tetrachloride	0.04774	0.0050	0.05	0	95.5	70	130	0.05165	7.87	20	
Chlorobenzene	0.04792	0.0050	0.05	0	95.8	70	130	0.05543	14.5	20	
Chloroethane	0.05096	0.010	0.05	0	102	70	130	0.05149	1.03	20	
Chloroform	0.04969	0.0050	0.05	0	99.4	70	130	0.05367	7.70	20	
Chloromethane	0.04348	0.010	0.05	0	87	70	130	0.04289	1.37	20	
cis-1,2-Dichloroethene	0.04722	0.0050	0.05	0	94.4	70	130	0.05241	10.4	20	
cis-1,3-Dichloropropene	0.0482	0.0050	0.05	0	96.4	70	130	0.0527	8.92	20	
Dibromochloromethane	0.04323	0.0050	0.05	0	86.5	70	130	0.04763	9.69	20	
Ethylbenzene	0.05078	0.0050	0.05	0	102	70	130	0.05833	13.8	20	

Qualifiers:
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B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12624

Sample ID **VLCSD051804-1** SampType: **LCSD** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-1_040518A**
Client ID: **ZZZZZ** Batch ID: **R12624** TestNo: **SW8260B** Analysis Date: **5/18/2004** SeqNo: **237580**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	0.09877	0.0050	0.1	0	98.8	70	130	0.1134	13.8	20	
Methylene chloride	0.05604	0.0050	0.05	0	112	70	130	0.05018	11.0	20	
o-Xylene	0.04851	0.0050	0.05	0	97	70	130	0.05583	14.0	20	
Styrene	0.04803	0.0050	0.05	0	96.1	70	130	0.05493	13.4	20	
Tetrachloroethene	0.04842	0.0050	0.05	0	96.8	70	130	0.05625	15.0	20	
Toluene	0.04914	0.0050	0.05	0	98.3	70	130	0.05526	11.7	20	
trans-1,2-Dichloroethene	0.04878	0.0050	0.05	0	97.6	70	130	0.05374	9.68	20	
trans-1,3-Dichloropropene	0.04902	0.0050	0.05	0	98	70	130	0.0541	9.85	20	
Trichloroethene	0.04656	0.0050	0.05	0	93.1	70	130	0.05256	12.1	20	
Vinyl chloride	0.05292	0.0050	0.05	0	106	70	130	0.05662	6.76	20	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9475

Sample ID	TCNMBW1 051304	SampType:	MBLK	TestCode:	CN_TW	Units:	mg/L	Prep Date:	5/13/2004	Run ID:	LACHAT_040513B
Client ID:	ZZZZZ	Batch ID:	9475	TestNo:	SW9012A			Analysis Date:	5/13/2004	SeqNo:	236104

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.0050									

Sample ID	TCNLCSW1 051304	SampType:	LCS	TestCode:	CN_TW	Units:	mg/L	Prep Date:	5/13/2004	Run ID:	LACHAT_040513B
Client ID:	ZZZZZ	Batch ID:	9475	TestNo:	SW9012A			Analysis Date:	5/13/2004	SeqNo:	236105

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.1875	0.0050	0.2	0	93.7	90	110	0	0		

Sample ID	0405043-001DMS	SampType:	MS	TestCode:	CN_TW	Units:	mg/L	Prep Date:	5/13/2004	Run ID:	LACHAT_040513B
Client ID:	HAS- MWRD-003	Batch ID:	9475	TestNo:	SW9012A			Analysis Date:	5/13/2004	SeqNo:	236107

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.4775	0.0050	0.2	0.232	123	75	125	0	0		

Sample ID	0405043-001DMSD	SampType:	MSD	TestCode:	CN_TW	Units:	mg/L	Prep Date:	5/13/2004	Run ID:	LACHAT_040513B
Client ID:	HAS- MWRD-003	Batch ID:	9475	TestNo:	SW9012A			Analysis Date:	5/13/2004	SeqNo:	236108

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.4784	0.0050	0.2	0.232	123	75	125	0.4775	0.193	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0405043
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12606

Sample ID **MBLK** SampType: **MBLK** TestCode: **OG_W** Units: **mg/L** Prep Date: **5/14/2004** Run ID: **BALANCE_040514B**
Client ID: **ZZZZZ** Batch ID: **R12606** TestNo: **E1664** Analysis Date: **5/17/2004** SeqNo: **237056**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	ND	5.0									*

Sample ID **LCS** SampType: **LCS** TestCode: **OG_W** Units: **mg/L** Prep Date: **5/14/2004** Run ID: **BALANCE_040514B**
Client ID: **ZZZZZ** Batch ID: **R12606** TestNo: **E1664** Analysis Date: **5/17/2004** SeqNo: **237057**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	78.2	5.0	80	0	97.8	78	114	0	0		*

Sample ID **LCSD** SampType: **LCSD** TestCode: **OG_W** Units: **mg/L** Prep Date: **5/14/2004** Run ID: **BALANCE_040514B**
Client ID: **ZZZZZ** Batch ID: **R12606** TestNo: **E1664** Analysis Date: **5/17/2004** SeqNo: **237058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	77.8	5.0	80	0	97.3	78	114	78.2	0.513	20	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

June 15, 2004

Joan Gonzalez
Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas- Hawthorne Regualtor Station STAT Project No: 0406078

Dear Joan Gonzalez:

STAT Analysis received 1 sample for the referenced project on 6/9/2004. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: June 15, 2004

Client: Burns & McDonnell
Project: 29168, Peoples Gas- Hawthorne Regualtor Station
Lab Order: 0406078

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0406078-001A	HAS-MWRD-004		6/9/2004 10:35:00 AM	6/9/2004
0406078-001B	HAS-MWRD-004		6/9/2004 10:35:00 AM	6/9/2004
0406078-001C	HAS-MWRD-004		6/9/2004 10:35:00 AM	6/9/2004
0406078-001D	HAS-MWRD-004		6/9/2004 10:35:00 AM	6/9/2004
0406078-001E	HAS-MWRD-004		6/9/2004 10:35:00 AM	6/9/2004

STAT Analysis Corporation

Date: *June 15, 2004*

CLIENT:	Burns & McDonnell
Project:	29168, Peoples Gas- Hawthorne Regualtor Stati
Lab Order:	0406078

CASE NARRATIVE

Initial calibration for Acrolein has a correlation coeficient less than 0.99.
ICV has high recovery for 1,4-Dioxane (257% recovery, QC limits: 50-150%).
The VOC- LCS had a high recovery for acetone: 193% (QC limits: 50-150%).

STAT Analysis Corporation
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Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
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Date Reported: June 15, 2004
Date Printed: June 15, 2004

Client: Burns & McDonnell
Lab Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station
Lab ID: 0406078-001

Client Sample ID: HAS-MWRD-004
Collection Date: 6/9/2004 10:35:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs		SW8082 (SW3510C)		Prep Date: 6/14/2004		Analyst: ERP
Aroclor 1016	ND	0.0005		mg/L	1	6/14/2004
Aroclor 1221	ND	0.0005		mg/L	1	6/14/2004
Aroclor 1232	ND	0.0005		mg/L	1	6/14/2004
Aroclor 1242	ND	0.0005		mg/L	1	6/14/2004
Aroclor 1248	ND	0.0005		mg/L	1	6/14/2004
Aroclor 1254	ND	0.0005		mg/L	1	6/14/2004
Aroclor 1260	ND	0.0005		mg/L	1	6/14/2004
Pesticides		SW8081 (SW3510C)		Prep Date: 6/14/2004		Analyst: ERP
4,4'-DDD	ND	0.0001		mg/L	1	6/14/2004
4,4'-DDE	ND	0.0001		mg/L	1	6/14/2004
4,4'-DDT	ND	0.0001		mg/L	1	6/14/2004
Aldrin	ND	0.00005		mg/L	1	6/14/2004
alpha-BHC	ND	0.00005		mg/L	1	6/14/2004
alpha-Chlordane	ND	0.00005		mg/L	1	6/14/2004
beta-BHC	ND	0.00005		mg/L	1	6/14/2004
Chlordane	ND	0.0005		mg/L	1	6/14/2004
delta-BHC	ND	0.00005		mg/L	1	6/14/2004
Dieldrin	ND	0.0001		mg/L	1	6/14/2004
Endosulfan I	ND	0.00005		mg/L	1	6/14/2004
Endosulfan II	ND	0.0001		mg/L	1	6/14/2004
Endosulfan sulfate	ND	0.0001		mg/L	1	6/14/2004
Endrin	ND	0.0001		mg/L	1	6/14/2004
Endrin aldehyde	ND	0.0001		mg/L	1	6/14/2004
Endrin ketone	ND	0.0001		mg/L	1	6/14/2004
gamma-BHC	ND	0.00005		mg/L	1	6/14/2004
gamma-Chlordane	ND	0.00005		mg/L	1	6/14/2004
Heptachlor	ND	0.00005		mg/L	1	6/14/2004
Heptachlor epoxide	ND	0.00005		mg/L	1	6/14/2004
Methoxychlor	ND	0.0005		mg/L	1	6/14/2004
Toxaphene	ND	0.001		mg/L	1	6/14/2004
Total Petroleum Hydrocarbons in Water		SW8015M (SW3510C)		Prep Date: 6/10/2004		Analyst: JF
TPH (Gasoline)	ND	0.11	*	mg/L	1	6/11/2004
TPH (Diesel)	0.27	0.11	*	mg/L	1	6/11/2004
TPH (Oil)	0.19	0.11	*	mg/L	1	6/11/2004
Mercury		SW7470A		Prep Date: 6/14/2004		Analyst: JG
Mercury	ND	0.00025		mg/L	1	6/14/2004

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Lab ID: 0406078-001
Client Sample ID: HAS-MWRD-004
Collection Date: 6/9/2004 10:35:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3005A)**			Prep Date: **6/10/2004**		Analyst: **BJA**
Antimony	ND	0.006		mg/L	1	6/11/2004
Arsenic	ND	0.002		mg/L	1	6/11/2004
Beryllium	ND	0.001		mg/L	1	6/11/2004
Cadmium	ND	0.001		mg/L	1	6/11/2004
Chromium	ND	0.002		mg/L	1	6/11/2004
Copper	0.0074	0.005		mg/L	1	6/10/2004
Iron	1.4	0.06		mg/L	1	6/11/2004
Lead	ND	0.001		mg/L	1	6/11/2004
Nickel	ND	0.004		mg/L	1	6/11/2004
Selenium	ND	0.002		mg/L	1	6/11/2004
Silver	ND	0.002		mg/L	1	6/11/2004
Thallium	ND	0.002		mg/L	1	6/11/2004
Zinc	0.03	0.02		mg/L	1	6/11/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3510C)**			Prep Date: **6/14/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.01		mg/L	1	6/15/2004
1,2-Dichlorobenzene	ND	0.01		mg/L	1	6/15/2004
1,3-Dichlorobenzene	ND	0.01		mg/L	1	6/15/2004
1,4-Dichlorobenzene	ND	0.01		mg/L	1	6/15/2004
2, 2'-oxybis(1-Chloropropane	ND	0.01		mg/L	1	6/15/2004
2,4,5-Trichlorophenol	ND	0.025		mg/L	1	6/15/2004
2,4,6-Trichlorophenol	ND	0.01		mg/L	1	6/15/2004
2,4-Dichlorophenol	ND	0.01		mg/L	1	6/15/2004
2,4-Dimethylphenol	ND	0.01		mg/L	1	6/15/2004
2,4-Dinitrophenol	ND	0.025		mg/L	1	6/15/2004
2,4-Dinitrotoluene	ND	0.01		mg/L	1	6/15/2004
2,6-Dinitrotoluene	ND	0.01		mg/L	1	6/15/2004
2-Chloronaphthalene	ND	0.01		mg/L	1	6/15/2004
2-Chlorophenol	ND	0.01		mg/L	1	6/15/2004
2-Methylnaphthalene	ND	0.01		mg/L	1	6/15/2004
2-Methylphenol	ND	0.01		mg/L	1	6/15/2004
2-Nitroaniline	ND	0.01		mg/L	1	6/15/2004
2-Nitrophenol	ND	0.01		mg/L	1	6/15/2004
3,3'-Dichlorobenzidine	ND	0.01		mg/L	1	6/15/2004
3-Nitroaniline	ND	0.025		mg/L	1	6/15/2004
4,6-Dinitro-2-methylphenol	ND	0.01		mg/L	1	6/15/2004
4-Bromophenyl phenyl ether	ND	0.01		mg/L	1	6/15/2004
4-Chloro-3-methylphenol	ND	0.01		mg/L	1	6/15/2004
4-Chloroaniline	ND	0.01		mg/L	1	6/15/2004

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Lab ID: 0406078-001

Client Sample ID: HAS-MWRD-004
Collection Date: 6/9/2004 10:35:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3510C)**			Prep Date: **6/14/2004**		Analyst: **JF**
4-Chlorophenyl phenyl ether	ND	0.01		mg/L	1	6/15/2004
4-Methylphenol	ND	0.01		mg/L	1	6/15/2004
4-Nitroaniline	ND	0.025		mg/L	1	6/15/2004
4-Nitrophenol	ND	0.025		mg/L	1	6/15/2004
Acenaphthene	ND	0.01		mg/L	1	6/15/2004
Acenaphthylene	ND	0.01		mg/L	1	6/15/2004
Anthracene	ND	0.01		mg/L	1	6/15/2004
Benz(a)anthracene	ND	0.01		mg/L	1	6/15/2004
Benzo(a)pyrene	ND	0.01		mg/L	1	6/15/2004
Benzo(b)fluoranthene	ND	0.01		mg/L	1	6/15/2004
Benzo(g,h,i)perylene	ND	0.01		mg/L	1	6/15/2004
Benzo(k)fluoranthene	ND	0.01		mg/L	1	6/15/2004
Bis(2-chloroethoxy)methane	ND	0.01		mg/L	1	6/15/2004
Bis(2-chloroethyl)ether	ND	0.01		mg/L	1	6/15/2004
Bis(2-chloroisopropyl)ether	ND	0.01		mg/L	1	6/15/2004
Bis(2-ethylhexyl)phthalate	ND	0.01		mg/L	1	6/15/2004
Butyl benzyl phthalate	ND	0.01		mg/L	1	6/15/2004
Carbazole	ND	0.01		mg/L	1	6/15/2004
Chrysene	ND	0.01		mg/L	1	6/15/2004
Di-n-butyl phthalate	ND	0.01		mg/L	1	6/15/2004
Di-n-octyl phthalate	ND	0.01		mg/L	1	6/15/2004
Dibenz(a,h)anthracene	ND	0.01		mg/L	1	6/15/2004
Dibenzofuran	ND	0.01		mg/L	1	6/15/2004
Diethyl phthalate	ND	0.01		mg/L	1	6/15/2004
Dimethyl phthalate	ND	0.01		mg/L	1	6/15/2004
Fluoranthene	ND	0.01		mg/L	1	6/15/2004
Fluorene	ND	0.01		mg/L	1	6/15/2004
Hexachlorobenzene	ND	0.01		mg/L	1	6/15/2004
Hexachlorobutadiene	ND	0.01		mg/L	1	6/15/2004
Hexachlorocyclopentadiene	ND	0.01		mg/L	1	6/15/2004
Hexachloroethane	ND	0.01		mg/L	1	6/15/2004
Indeno(1,2,3-cd)pyrene	ND	0.01		mg/L	1	6/15/2004
Isophorone	ND	0.01		mg/L	1	6/15/2004
N-Nitrosodi-n-propylamine	ND	0.01		mg/L	1	6/15/2004
N-Nitrosodiphenylamine	ND	0.01		mg/L	1	6/15/2004
Naphthalene	ND	0.01		mg/L	1	6/15/2004
Nitrobenzene	ND	0.01		mg/L	1	6/15/2004
Pentachlorophenol	ND	0.025		mg/L	1	6/15/2004

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Lab ID: 0406078-001

Client Sample ID: HAS-MWRD-004
Collection Date: 6/9/2004 10:35:00 AM
Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3510C)**			Prep Date: **6/14/2004**		Analyst: **JF**
Phenanthrene	ND	0.01		mg/L	1	6/15/2004
Phenol	ND	0.01		mg/L	1	6/15/2004
Pyrene	ND	0.01		mg/L	1	6/15/2004
Volatile Organic Compounds by GC/MS	**SW8260B (SW5030B)**			Prep Date:		Analyst: **MP**
1,1,1-Trichloroethane	ND	0.005		mg/L	1	6/15/2004
1,1,2,2-Tetrachloroethane	ND	0.005		mg/L	1	6/15/2004
1,1,2-Trichloroethane	ND	0.005		mg/L	1	6/15/2004
1,1-Dichloroethane	ND	0.005		mg/L	1	6/15/2004
1,1-Dichloroethene	ND	0.005		mg/L	1	6/15/2004
1,2-Dibromoethane	ND	0.005		mg/L	1	6/15/2004
1,2-Dichloroethane	ND	0.005		mg/L	1	6/15/2004
1,2-Dichloropropane	ND	0.005		mg/L	1	6/15/2004
1,3,5-Trimethylbenzene	ND	0.005		mg/L	1	6/15/2004
1,3-Butadiene	ND	0.01	*	mg/L	1	6/15/2004
1,4-Dioxane	ND	0.1		mg/L	1	6/15/2004
1-Ethyl-2-methylbenzene	ND	0.005	*	mg/L	1	6/15/2004
2-Butanone	ND	0.01		mg/L	1	6/15/2004
2-Hexanone	ND	0.01		mg/L	1	6/15/2004
4-Methyl-2-pentanone	ND	0.01		mg/L	1	6/15/2004
Acetone	ND	0.01		mg/L	1	6/15/2004
Acrolein	ND	0.05		mg/L	1	6/15/2004
Acrylonitrile	ND	0.005		mg/L	1	6/15/2004
Benzene	ND	0.005		mg/L	1	6/15/2004
Bromodichloromethane	ND	0.005		mg/L	1	6/15/2004
Bromoform	ND	0.005		mg/L	1	6/15/2004
Bromomethane	ND	0.01		mg/L	1	6/15/2004
Carbon disulfide	ND	0.005		mg/L	1	6/15/2004
Carbon tetrachloride	ND	0.005		mg/L	1	6/15/2004
Chlorobenzene	ND	0.005		mg/L	1	6/15/2004
Chloroethane	ND	0.01		mg/L	1	6/15/2004
Chloroform	ND	0.005		mg/L	1	6/15/2004
Chloromethane	ND	0.01		mg/L	1	6/15/2004
cis-1,2-Dichloroethene	ND	0.005		mg/L	1	6/15/2004
cis-1,3-Dichloropropene	ND	0.005		mg/L	1	6/15/2004
Dibromochloromethane	ND	0.005		mg/L	1	6/15/2004
Ethylbenzene	ND	0.005		mg/L	1	6/15/2004
m,p-Xylene	ND	0.005		mg/L	1	6/15/2004
Methylene chloride	ND	0.01		mg/L	1	6/15/2004

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Matrix: Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW8260B (SW5030B)**			Prep Date:		Analyst: **MP**
o-Xylene	ND	0.005		mg/L	1	6/15/2004
Styrene	ND	0.005		mg/L	1	6/15/2004
Tetrachloroethene	ND	0.005		mg/L	1	6/15/2004
Toluene	ND	0.005		mg/L	1	6/15/2004
trans-1,2-Dichloroethene	ND	0.005		mg/L	1	6/15/2004
trans-1,3-Dichloropropene	ND	0.005		mg/L	1	6/15/2004
Trichloroethene	ND	0.005		mg/L	1	6/15/2004
Vinyl chloride	ND	0.01		mg/L	1	6/15/2004
Cyanide, Total	**SW9012A**			Prep Date: **6/10/2004**		Analyst: **DGI**
Cyanide	0.15	0.005		mg/L	1	6/11/2004
Oil and Grease	**E1664**			Prep Date: **6/9/2004**		Analyst: **PMS**
Oil and Grease (HEM)	7.2	5	*	mg/L	1	6/10/2004
pH	**E150.1**			Prep Date: **6/9/2004**		Analyst: **RW**
pH	7.8		*	pH units	1	6/9/2004

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Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: (312) 733-0551

Document Control No: HAS-017-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: MWRDGC	Parameter/Method Code: SDA 202	Parameter/Method Code: NAPHTHALENE	Parameter/Method Code: TPH-DRO	Parameter/Method Code: TPH-GRO	Parameter/Method Code: TPH-MOTOR OIL	Parameter/Method Code: TPH AS DIESEL	Parameter/Method Code: TPH AS GASOLINE	Remarks
HAS	MWRD	004	-	-	-	-	6/9/04	1335	X			8	X	X	X	X	X	X	X		001 ~~002~~ ~~003~~

6/9/04

PLEASE FIND 1 COOLER

Sampler (signature): [signature]

Sampler (signature):

Custody Seal Number
060904 STAT-001
060904 STAT-002

Special Instructions: 5 DAY TAT

Relinquished By (signature): 1. [signature]
Date/Time 6/9/04 1200
Received By (signature): [signature]
Date/Time 6/9/04 12:02

Relinquished By (signature):
Date/Time
Received By (signature):
Date/Time

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt: 4°

Laboratory Comments: 0406078

STAT Analysis Corporation

Sample Receipt Checklist

Client Name **B&M**

Work Order Numbe **0406078**

Date and Time Received: **06/09/2004**

Received by JC

Checklist completed by [signature] (Signature) 6/9/04 (Date)

Reviewed by a (Initials) 6/15/04 (Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 4 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☑	No ☐	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

STAT Analysis Corporation

Date: 15-Jun-04

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station
Test No: SW8260B **Matrix:** W

Sample ID	BR4FBZ	BZMED8	DBFM	DCA12D4				
VBLK061504-2	109	100	98.8	105				
VLCS061504-2	104	100	99.8	102				
0406078-001A	107	103	100	105				
0406042-013BMS	103	102	99.2	100				
0406042-013BMSD	104	98.4	101	103				

Acronym		Surrogate	QC Limits
BR4FBZ	=	4-Bromofluorobenzene	86-115
BZMED8	=	Toluene-d8	88-110
DBFM	=	Dibromofluoromethane	86-118
DCA12D4	=	1,2-Dichloroethane-d4	80-120

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

Date: 15-Jun-04

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station
Test No: SW8270C **Matrix:** W

Sample ID	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
MB-9789-SVOC	77.1	71.8	85.7	91.1	55.6	44.2	78.5	92.4
LCS-9789-SVOC	83.0	75.2	98.7	99.5	58.8	48.0	89.1	93.7
LCSD-9789-SVOC	83.2	76.7	94.6	93.9	59.5	46.3	85.1	90.5
0406078-001B	96.1	91.4	109	110	67.4	53.7	94.7	103

Acronym		Surrogate	QC Limits
CLPH2D4	=	2-Chlorophenol-d4	33-110
DCBZ12D4	=	1,2-Dichlorobenzene-d4	16-110
NO2BZD5	=	Nitrobenzene-d5	35-114
PH246BR	=	2,4,6-Tribromophenol	10-123
PH2F	=	2-Fluorophenol	21-110
PHD5	=	Phenol-d5	10-110
PHEN2F	=	2-Fluorobiphenyl	43-116
PHEND14	=	4-Terphenyl-d14	33-141

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/14/2004 2:18:20 P**
Prep End Date:

Prep Factor Units: **mL / L**

Prep Batch **9789** Prep Code: **3510_SVOC** Technician: **VA**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
MB-9789-SVOC			1	0	0	1	1.000	6/14/2004	6/14/2004
LCS-9789-SVOC			1	0	0	1	1.000	6/14/2004	6/14/2004
LCSD-9789-SVOC			1	0	0	1	1.000	6/14/2004	6/14/2004
MB-9789-TCLP			0.5	0	0	1	2.000	6/14/2004	6/14/2004
0406007-001A	Soil		0.5	0	0	1	2.000	6/14/2004	6/14/2004
0406078-001B	Water		1	0	0	1	1.000	6/14/2004	6/14/2004

STAT Analysis Corporation

Date: 15-Jun-04

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station
Test No: SW8081 **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
mb-9786-pp	85.0	60.0						
lcs-9786-pest	74.0	60.0						
lcsd-9786-pest	90.0	63.0						
0406078-001B	74.0	60.0						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

Date: 15-Jun-04

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station
Test No: SW8082 **Matrix:** W

Sample ID	CL10BZ2	XYL2456CLM						
mb-9786-pp	106	113						
0406078-001B	106	120						
lcs-9786-pcb	127	103						
lcsd-9786-pcb	116	98.0						

Acronym		Surrogate	QC Limits
CL10BZ2	=	Decachlorobiphenyl	30-150
XYL2456CLM	=	Tetrachloro-m-xylene	30-150

*** Surrogate recovery outside acceptance limits**

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/14/2004 2:13:01 P**
Prep End Date:

Prep Factor Units: **mL / L**

Prep Batch **9786** Prep Code: **3510_PP** Technician: **VA**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
MB-9786-PP			1	0	0	10	10.000	6/14/2004	6/14/2004
LCS-9786-PCB			1	0	0	10	10.000	6/14/2004	6/14/2004
LCSD-9786-PCB			1	0	0	10	10.000	6/14/2004	6/14/2004
LCS-9786-PEST			1	0	0	10	10.000	6/14/2004	6/14/2004
LCSD-9786-PEST			1	0	0	10	10.000	6/14/2004	6/14/2004
0406078-001B	Water		1	0	0	10	10.000	6/14/2004	6/14/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/10/2004 12:08:54**
Prep End Date: **6/10/2004 1:35:40 P**

Prep Factor Units: **mL / L**

Prep Batch **9756** Prep Code: **3510_TPH** Technician: **VA**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0406078-001B	Water		0.94	0	0	1	1.064	6/10/2004	6/10/2004
0406083-001A	Water		0.4	0	0	1	2.500	6/10/2004	6/10/2004
LCS-9756-TPH			1	0	0	1	1.000	6/10/2004	6/10/2004
LCSD-9756-TPH			1	0	0	1	1.000	6/10/2004	6/10/2004
MB-9756-TPH			1	0	0	1	1.000	6/10/2004	6/10/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/10/2004 7:45:00 A**
Prep End Date: **6/10/2004 1:00:00 P**

Prep Batch **9757** Prep Code: **M_W_PREP** Technician: **DGI**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0406078-001C	Water		50	0	0	50	1.000	6/10/2004	6/10/2004
0406078-001CMS	Water		50	0	0	50	1.000	6/10/2004	6/10/2004
0406078-001CMSD	Water		50	0	0	50	1.000	6/10/2004	6/10/2004
ILCSW1 6/10/04			50	0	0	50	1.000	6/10/2004	6/10/2004
IMBW1 6/10/04			50	0	0	50	1.000	6/10/2004	6/10/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/15/2004 8:20:00 A**
Prep End Date: **6/15/2004 10:20:00**

Prep Factor Units: **mL /**

Prep Batch **9781** Prep Code: **M_HG_W_PR** Technician: **PMS**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
HGMBW1 6/14/04			30	0	0	30	1.000	6/14/2004	6/14/2004
HGLCSW1 6/14/04			30	0	0	30	1.000	6/14/2004	6/14/2004
HGMBTCLP1 6/11/04			30	0	0	30	1.000	6/14/2004	6/14/2004
0406078-001C	Water		30	0	0	30	1.000	6/14/2004	6/14/2004
0406091-001A	Soil		30	0	0	30	1.000	6/14/2004	6/14/2004
0406091-001AMS	Soil		30	0	0	30	1.000	6/14/2004	6/14/2004
0406091-001AMSD	Soil		30	0	0	30	1.000	6/14/2004	6/14/2004
HGMBTCLP1 6/1/04			30	0	0	30	1.000	6/15/2004	6/15/2004
HGMBTCLP1 6/10/04			30	0	0	30	1.000	6/15/2004	6/15/2004
0406007-001A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-002A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-003A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-004A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-005A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-006A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-007A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-008A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-009A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-010A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-011A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-012A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-013A	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406007-001AMS	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004
0406082-007AMS	Soil		30	0	0	30	1.000	6/15/2004	6/15/2004

STAT Analysis Corporation Date: *June 15, 2004*

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9756

Sample ID **MB-9756-TPH** SampType: **MBLK** TestCode: **TPH_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **GC-FID_040608D**
Client ID: **ZZZZZ** Batch ID: **9756** TestNo: **SW8015M** Analysis Date: **6/10/2004** SeqNo: **246982**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline)	0.02282	0.10									J*
TPH (Diesel)	0.01732	0.10									J*
TPH (Oil)	0.04148	0.10									J*

Sample ID **LCS-9756-TPH** SampType: **LCS** TestCode: **TPH_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **GC-FID_040608D**
Client ID: **ZZZZZ** Batch ID: **9756** TestNo: **SW8015M** Analysis Date: **6/10/2004** SeqNo: **246983**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.7601	0.10	1	0.01732	74.3	30	150	0	0		*

Sample ID **LCSD-9756-TPH** SampType: **LCSD** TestCode: **TPH_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **GC-FID_040608D**
Client ID: **ZZZZZ** Batch ID: **9756** TestNo: **SW8015M** Analysis Date: **6/10/2004** SeqNo: **246984**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel)	0.7912	0.10	1	0.01732	77.4	30	150	0.7601	4.01	25	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9786

Sample ID **mb-9786-pp** SampType: **mblk** TestCode: **pcb_water** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **GC-ECD_040615A**
Client ID: **ZZZZZ** Batch ID: **9786** TestNo: **SW8082** Analysis Date: **6/14/2004** SeqNo: **248230**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.00050									
Aroclor 1221	ND	0.00050									
Aroclor 1232	ND	0.00050									
Aroclor 1242	ND	0.00050									
Aroclor 1248	ND	0.00050									
Aroclor 1254	ND	0.00050									
Aroclor 1260	ND	0.00050									

Sample ID **lcs-9786-pcb** SampType: **lcs** TestCode: **pcb_water** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **GC-ECD_040615A**
Client ID: **ZZZZZ** Batch ID: **9786** TestNo: **SW8082** Analysis Date: **6/15/2004** SeqNo: **248233**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.01185	0.00050	0.01	0	118	30	150	0	0		
Aroclor 1260	0.01259	0.00050	0.01	0	126	30	150	0	0		

Sample ID **lcsd-9786-pcb** SampType: **lcsd** TestCode: **pcb_water** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **GC-ECD_040615A**
Client ID: **ZZZZZ** Batch ID: **9786** TestNo: **SW8082** Analysis Date: **6/15/2004** SeqNo: **248234**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.01134	0.00050	0.01	0	113	30	150	0.01185	4.40	25	
Aroclor 1260	0.01227	0.00050	0.01	0	123	30	150	0.01259	2.57	25	

Sample ID **mb-9786-pp** SampType: **mblk** TestCode: **pest_water** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **GC-ECD_040615A**
Client ID: **ZZZZZ** Batch ID: **9786** TestNo: **SW8081** Analysis Date: **6/14/2004** SeqNo: **248218**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.00010									
4,4'-DDE	ND	0.00010									
4,4'-DDT	ND	0.00010									
Aldrin	ND	0.000050									
alpha-BHC	ND	0.000050									

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9786

Sample ID **mb-9786-pp** SampType: **mblk** TestCode: **pest_water** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **GC-ECD_040615A**
Client ID: **ZZZZZ** Batch ID: **9786** TestNo: **SW8081** Analysis Date: **6/14/2004** SeqNo: **248218**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
alpha-Chlordane	ND	0.000050									
beta-BHC	ND	0.000050									
Chlordane	ND	0.00050									
delta-BHC	ND	0.000050									
Dieldrin	ND	0.00010									
Endosulfan I	ND	0.000050									
Endosulfan II	ND	0.00010									
Endosulfan sulfate	ND	0.00010									
Endrin	ND	0.00010									
Endrin aldehyde	ND	0.00010									
Endrin ketone	ND	0.00010									
gamma-BHC	ND	0.000050									
gamma-Chlordane	ND	0.000050									
Heptachlor	ND	0.000050									
Heptachlor epoxide	ND	0.000050									
Methoxychlor	ND	0.00050									
Toxaphene	ND	0.0010									

Sample ID **lcs-9786-pest** SampType: **lcs** TestCode: **pest_water** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **GC-ECD_040615A**
Client ID: **ZZZZZ** Batch ID: **9786** TestNo: **SW8081** Analysis Date: **6/14/2004** SeqNo: **248219**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.0002	0.00010	0.00025	0	80	30	150	0	0		
4,4'-DDE	0.00018	0.00010	0.00025	0	72	30	150	0	0		
4,4'-DDT	0.00019	0.00010	0.00025	0	76	30	150	0	0		
Aldrin	0.00018	0.000050	0.00025	0	72	30	150	0	0		
alpha-BHC	0.00019	0.000050	0.00025	0	76	30	150	0	0		
alpha-Chlordane	0.0002	0.000050	0.00025	0	80	30	150	0	0		
beta-BHC	0.00026	0.000050	0.00025	0	104	30	150	0	0		
delta-BHC	0.00021	0.000050	0.00025	0	84	30	150	0	0		
Dieldrin	0.0002	0.00010	0.00025	0	80	30	150	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9786

Sample ID **lcs-9786-pest** SampType: **lcs** TestCode: **pest_water** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **GC-ECD_040615A**
Client ID: **ZZZZZ** Batch ID: **9786** TestNo: **SW8081** Analysis Date: **6/14/2004** SeqNo: **248219**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Endosulfan I	0.00019	0.000050	0.00025	0	76	30	150	0	0		
Endosulfan II	0.00018	0.00010	0.00025	0	72	30	150	0	0		
Endosulfan sulfate	0.00023	0.00010	0.00025	0	92	30	150	0	0		
Endrin	0.00034	0.00010	0.00025	0	136	30	150	0	0		
Endrin aldehyde	0.0002	0.00010	0.00025	0	80	30	150	0	0		
Endrin ketone	0.00023	0.00010	0.00025	0	92	30	150	0	0		
gamma-BHC	0.0002	0.000050	0.00025	0	80	30	150	0	0		
gamma-Chlordane	0.00019	0.000050	0.00025	0	76	30	150	0	0		
Heptachlor	0.0002	0.000050	0.00025	0	80	30	150	0	0		
Heptachlor epoxide	0.00022	0.000050	0.00025	0	88	30	150	0	0		
Methoxychlor	0.0002	0.00050	0.00025	0	80	30	150	0	0		J

Sample ID **lcsd-9786-pest** SampType: **lcsd** TestCode: **pest_water** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **GC-ECD_040615A**
Client ID: **ZZZZZ** Batch ID: **9786** TestNo: **SW8081** Analysis Date: **6/14/2004** SeqNo: **248220**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.00021	0.00010	0.00025	0	84	30	150	0.0002	4.88	25	
4,4'-DDE	0.00019	0.00010	0.00025	0	76	30	150	0.00018	5.41	25	
4,4'-DDT	0.00021	0.00010	0.00025	0	84	30	150	0.00019	10.0	25	
Aldrin	0.00018	0.000050	0.00025	0	72	30	150	0.00018	0	25	
alpha-BHC	0.0002	0.000050	0.00025	0	80	30	150	0.00019	5.13	25	
alpha-Chlordane	0.0002	0.000050	0.00025	0	80	30	150	0.0002	0	25	
beta-BHC	0.00025	0.000050	0.00025	0	100	30	150	0.00026	3.92	25	
delta-BHC	0.0002	0.000050	0.00025	0	80	30	150	0.00021	4.88	25	
Dieldrin	0.0002	0.00010	0.00025	0	80	30	150	0.0002	0	25	
Endosulfan I	0.0002	0.000050	0.00025	0	80	30	150	0.00019	5.13	25	
Endosulfan II	0.00022	0.00010	0.00025	0	88	30	150	0.00018	20.0	25	
Endosulfan sulfate	0.00028	0.00010	0.00025	0	112	30	150	0.00023	19.6	25	
Endrin	0.00038	0.00010	0.00025	0	152	30	150	0.00034	11.1	25	S
Endrin aldehyde	0.00019	0.00010	0.00025	0	76	30	150	0.0002	5.13	25	
Endrin ketone	0.00019	0.00010	0.00025	0	76	30	150	0.00023	19.0	25	

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9786

Sample ID **lcsd-9786-pest** SampType: **lcsd** TestCode: **pest_water** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **GC-ECD_040615A**
Client ID: **ZZZZZ** Batch ID: **9786** TestNo: **SW8081** Analysis Date: **6/14/2004** SeqNo: **248220**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
gamma-BHC	0.00021	0.000050	0.00025	0	84	30	150	0.0002	4.88	25	
gamma-Chlordane	0.00019	0.000050	0.00025	0	76	30	150	0.00019	0	25	
Heptachlor	0.0002	0.000050	0.00025	0	80	30	150	0.0002	0	25	
Heptachlor epoxide	0.00021	0.000050	0.00025	0	84	30	150	0.00022	4.65	25	
Methoxychlor	0.00023	0.00050	0.00025	0	92	30	150	0.0002	0	25	J

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9757

Sample ID **IMBW1 6/10/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040611A**
Client ID: **ZZZZZ** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/11/2004** SeqNo: **247737**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.00344	0.0060									J
Arsenic	0.00073	0.0020									J
Beryllium	ND	0.0010									
Cadmium	ND	0.0010									
Chromium	ND	0.0020									
Copper	ND	0.0050									
Iron	ND	0.060									
Lead	ND	0.0010									
Nickel	ND	0.0040									
Selenium	ND	0.0020									
Silver	ND	0.0020									
Thallium	ND	0.0020									
Zinc	0.01721	0.020									J

Sample ID **ILCSW1 6/10/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040610A**
Client ID: **ZZZZZ** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/10/2004** SeqNo: **247371**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.5715	0.010	0.5	0	114	80	120	0	0		

Sample ID **ILCSW1 6/10/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040611A**
Client ID: **ZZZZZ** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/11/2004** SeqNo: **247738**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.5924	0.0060	0.5	0.00344	118	80	120	0	0		
Arsenic	0.4343	0.0020	0.5	0.00073	86.7	80	120	0	0		
Beryllium	0.484	0.0010	0.5	0	96.8	80	120	0	0		
Cadmium	0.4522	0.0010	0.5	0	90.4	80	120	0	0		
Chromium	0.5021	0.0020	0.5	0	100	80	120	0	0		
Iron	2.029	0.060	2	0	101	80	120	0	0		
Lead	0.4994	0.0010	0.5	0	99.9	80	120	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9757

Sample ID **ILCSW1 6/10/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040611A**
Client ID: **ZZZZZ** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/11/2004** SeqNo: **247738**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.495	0.0040	0.5	0	99	80	120	0	0		
Selenium	0.4846	0.0020	0.5	0	96.9	80	120	0	0		
Silver	0.1995	0.0020	0.2	0	99.8	80	120	0	0		
Thallium	0.4886	0.0020	0.5	0	97.7	80	120	0	0		
Zinc	0.4518	0.020	0.5	0.01721	86.9	80	120	0	0		

Sample ID **0406078-001C** SampType: **DUP** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040611A**
Client ID: **HAS-MWRD-004** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/11/2004** SeqNo: **247763**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.015	0	0	0	0	0	0.0013	0	20	
Arsenic	ND	0.010	0	0	0	0	0	0.00127	0	20	
Beryllium	ND	0.0050	0	0	0	0	0	0	0	20	
Cadmium	ND	0.0050	0	0	0	0	0	0	0	20	
Chromium	ND	0.010	0	0	0	0	0	0	0	20	
Copper	ND	0.025	0	0	0	0	0	0.00855	0	20	
Iron	1.356	0.25	0	0	0	0	0	1.403	3.41	20	
Lead	ND	0.0050	0	0	0	0	0	0	0	20	
Nickel	ND	0.010	0	0	0	0	0	0.00038	0	20	
Selenium	ND	0.010	0	0	0	0	0	0	0	20	
Silver	ND	0.010	0	0	0	0	0	0	0	20	
Thallium	ND	0.010	0	0	0	0	0	0.00028	0	20	
Zinc	0.02708	0.050	0	0	0	0	0	0.02959	0	20	J

Sample ID **0406078-001CMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040610A**
Client ID: **HAS-MWRD-004** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/10/2004** SeqNo: **247373**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.4598	0.0050	0.5	0.0074	90.5	75	125	0	0		

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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9757

Sample ID **0406078-001CMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040611A**
Client ID: **HAS-MWRD-004** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/11/2004** SeqNo: **247740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.6089	0.0060	0.5	0.0013	122	75	125	0	0		
Arsenic	0.45	0.0020	0.5	0.00127	89.7	75	125	0	0		
Beryllium	0.4716	0.0010	0.5	0	94.3	75	125	0	0		
Cadmium	0.4426	0.0010	0.5	0	88.5	75	125	0	0		
Chromium	0.5039	0.0020	0.5	0	101	75	125	0	0		
Iron	3.476	0.060	2	1.403	104	75	125	0	0		
Lead	0.5399	0.0010	0.5	0	108	75	125	0	0		
Nickel	0.472	0.0040	0.5	0.00038	94.3	75	125	0	0		
Selenium	0.4719	0.0020	0.5	0	94.4	75	125	0	0		
Silver	0.1963	0.0020	0.2	0	98.2	75	125	0	0		
Thallium	0.5413	0.0020	0.5	0.00028	108	75	125	0	0		
Zinc	0.4111	0.020	0.5	0.02959	76.3	75	125	0	0		

Sample ID **0406078-001CMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040610A**
Client ID: **HAS-MWRD-004** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/10/2004** SeqNo: **247374**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.4579	0.0050	0.5	0.0074	90.1	75	125	0.4598	0.414	20	

Sample ID **0406078-001CMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040611A**
Client ID: **HAS-MWRD-004** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/11/2004** SeqNo: **247743**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.6128	0.0060	0.5	0.0013	122	75	125	0.6128	0	20	
Arsenic	0.4504	0.0020	0.5	0.00127	89.8	75	125	0.4504	0	20	
Beryllium	0.4719	0.0010	0.5	0	94.4	75	125	0.4719	0	20	
Cadmium	0.4399	0.0010	0.5	0	88	75	125	0.4399	0	20	
Chromium	0.5022	0.0020	0.5	0	100	75	125	0.5022	0	20	
Iron	3.477	0.060	2	1.403	104	75	125	3.477	0	20	
Lead	0.5345	0.0010	0.5	0	107	75	125	0.5345	0	20	
Nickel	0.4657	0.0040	0.5	0.00038	93.1	75	125	0.4657	0	20	

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9757

Sample ID **0406078-001CMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/10/2004** Run ID: **ICPMS-2_040611A**
Client ID: **HAS-MWRD-004** Batch ID: **9757** TestNo: **SW6020** Analysis Date: **6/11/2004** SeqNo: **247743**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.4704	0.0020	0.5	0	94.1	75	125	0.4704	0	20	
Silver	0.1955	0.0020	0.2	0	97.8	75	125	0.1955	0	20	
Thallium	0.5384	0.0020	0.5	0.00028	108	75	125	0.5384	0	20	
Zinc	0.4075	0.020	0.5	0.02959	75.6	75	125	0.4075	0	20	

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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9781

Sample ID **0406091-001AMS** SampType: **MS** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **CETAC_040614A**
Client ID: **ZZZZZ** Batch ID: **9781** TestNo: **SW1311/7470** Analysis Date: **6/14/2004** SeqNo: **247872**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00254	0.00025	0.0025	0	102	75	125	0	0		

Sample ID **0406091-001AMSD** SampType: **MSD** TestCode: **M_1311_HG** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **CETAC_040614A**
Client ID: **ZZZZZ** Batch ID: **9781** TestNo: **SW1311/7470** Analysis Date: **6/14/2004** SeqNo: **247873**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00274	0.00025	0.0025	0	110	75	125	0.00254	7.58	20	

Sample ID **HGMBW1 6/14/04** SampType: **MBLK** TestCode: **M_HG_WATE** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **CETAC_040614A**
Client ID: **ZZZZZ** Batch ID: **9781** TestNo: **SW7470A** Analysis Date: **6/14/2004** SeqNo: **247868**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.00025									

Sample ID **HGLCSW1 6/14/04** SampType: **LCS** TestCode: **M_HG_WATE** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **CETAC_040614A**
Client ID: **ZZZZZ** Batch ID: **9781** TestNo: **SW7470A** Analysis Date: **6/14/2004** SeqNo: **247869**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00241	0.00025	0.0025	0	96.4	80	120	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9789

Sample ID	MB-9789-SVOC	SampType:	MBLK	TestCode:	SVOC_WATE	Units:	mg/L	Prep Date:	6/14/2004	Run ID:	SVOC-2_040614B
Client ID:	ZZZZZ	Batch ID:	9789	TestNo:	SW8270C			Analysis Date:	6/14/2004	SeqNo:	247933

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.010									
1,2-Dichlorobenzene	ND	0.010									
1,3-Dichlorobenzene	ND	0.010									
1,4-Dichlorobenzene	ND	0.010									
2, 2'-oxybis(1-Chloropropane)	ND	0.010									
2,4,5-Trichlorophenol	ND	0.010									
2,4,6-Trichlorophenol	ND	0.010									
2,4-Dichlorophenol	ND	0.010									
2,4-Dimethylphenol	ND	0.010									
2,4-Dinitrophenol	ND	0.025									
2,4-Dinitrotoluene	ND	0.010									
2,6-Dinitrotoluene	ND	0.010									
2-Chloronaphthalene	ND	0.010									
2-Chlorophenol	ND	0.010									
2-Methylnaphthalene	ND	0.010									
2-Methylphenol	ND	0.010									
2-Nitroaniline	ND	0.025									
2-Nitrophenol	ND	0.010									
3,3'-Dichlorobenzidine	ND	0.020									
3-Nitroaniline	ND	0.025									
4,6-Dinitro-2-methylphenol	ND	0.025									
4-Bromophenyl phenyl ether	ND	0.010									
4-Chloro-3-methylphenol	ND	0.010									
4-Chloroaniline	ND	0.010									
4-Chlorophenyl phenyl ether	ND	0.010									
4-Methylphenol	ND	0.010									
4-Nitroaniline	ND	0.025									
4-Nitrophenol	ND	0.025									
Acenaphthene	ND	0.010									
Acenaphthylene	ND	0.010									
Anthracene	ND	0.010									

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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9789

Sample ID **MB-9789-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **SVOC-2_040614B**
Client ID: **ZZZZZ** Batch ID: **9789** TestNo: **SW8270C** Analysis Date: **6/14/2004** SeqNo: **247933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	0.010									
Benzo(a)pyrene	ND	0.010									
Benzo(b)fluoranthene	ND	0.010									
Benzo(g,h,i)perylene	ND	0.010									
Benzo(k)fluoranthene	ND	0.010									
Bis(2-chloroethoxy)methane	ND	0.010									
Bis(2-chloroethyl)ether	ND	0.010									
Bis(2-ethylhexyl)phthalate	ND	0.010									
Butyl benzyl phthalate	ND	0.010									
Carbazole	ND	0.025									
Chrysene	ND	0.010									
Di-n-butyl phthalate	ND	0.010									
Di-n-octyl phthalate	ND	0.010									
Dibenz(a,h)anthracene	ND	0.010									
Dibenzofuran	ND	0.010									
Diethyl phthalate	ND	0.010									
Dimethyl phthalate	ND	0.010									
Fluoranthene	ND	0.010									
Fluorene	ND	0.010									
Hexachlorobenzene	ND	0.010									
Hexachlorobutadiene	ND	0.010									
Hexachlorocyclopentadiene	ND	0.010									
Hexachloroethane	ND	0.010									
Indeno(1,2,3-cd)pyrene	ND	0.010									
Isophorone	ND	0.010									
N-Nitrosodi-n-propylamine	ND	0.010									
N-Nitrosodiphenylamine	ND	0.010									
Naphthalene	ND	0.010									
Nitrobenzene	ND	0.010									
Pentachlorophenol	ND	0.010									
Phenanthrene	ND	0.010									

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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9789

Sample ID **MB-9789-SVOC** SampType: **MBLK** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **SVOC-2_040614B**
Client ID: **ZZZZZ** Batch ID: **9789** TestNo: **SW8270C** Analysis Date: **6/14/2004** SeqNo: **247933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	0.010									
Pyrene	ND	0.010									

Sample ID **LCS-9789-SVOC** SampType: **LCS** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **SVOC-2_040614B**
Client ID: **ZZZZZ** Batch ID: **9789** TestNo: **SW8270C** Analysis Date: **6/14/2004** SeqNo: **247934**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.04017	0.010	0.05	0	80.3	31	101	0	0		
1,4-Dichlorobenzene	0.03503	0.010	0.05	0	70.1	27	99	0	0		
2,4-Dinitrotoluene	0.04714	0.010	0.05	0	94.3	44	123	0	0		
2-Chlorophenol	0.08217	0.010	0.1	0	82.2	30	97	0	0		
4-Chloro-3-methylphenol	0.0988	0.010	0.1	0	98.8	43	113	0	0		
4-Nitrophenol	0.0545	0.025	0.1	0	54.5	10	129	0	0		
Acenaphthene	0.04563	0.010	0.05	0	91.3	43	122	0	0		
N-Nitrosodi-n-propylamine	0.04964	0.010	0.05	0	99.3	36	104	0	0		
Pentachlorophenol	0.106	0.010	0.1	0	106	50	113	0	0		
Phenol	0.04754	0.010	0.1	0	47.5	12	101	0	0		
Pyrene	0.04519	0.010	0.05	0	90.4	54	131	0	0		

Sample ID **LCSD-9789-SVOC** SampType: **LCSD** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **SVOC-2_040614B**
Client ID: **ZZZZZ** Batch ID: **9789** TestNo: **SW8270C** Analysis Date: **6/14/2004** SeqNo: **247935**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	0.03992	0.010	0.05	0	79.8	31	101	0.04017	0.624	28	
1,4-Dichlorobenzene	0.03646	0.010	0.05	0	72.9	27	99	0.03503	4.00	28	
2,4-Dinitrotoluene	0.04446	0.010	0.05	0	88.9	44	123	0.04714	5.85	38	
2-Chlorophenol	0.08303	0.010	0.1	0	83	30	97	0.08217	1.04	40	
4-Chloro-3-methylphenol	0.0929	0.010	0.1	0	92.9	43	113	0.0988	6.16	42	
4-Nitrophenol	0.04988	0.025	0.1	0	49.9	10	129	0.0545	8.85	50	
Acenaphthene	0.04606	0.010	0.05	0	92.1	43	122	0.04563	0.938	31	
N-Nitrosodi-n-propylamine	0.04681	0.010	0.05	0	93.6	36	104	0.04964	5.87	38	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9789

Sample ID **LCSD-9789-SVOC** SampType: **LCSD** TestCode: **SVOC_WATE** Units: **mg/L** Prep Date: **6/14/2004** Run ID: **SVOC-2_040614B**
Client ID: **ZZZZZ** Batch ID: **9789** TestNo: **SW8270C** Analysis Date: **6/14/2004** SeqNo: **247935**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Pentachlorophenol	0.0967	0.010	0.1	0	96.7	50	113	0.106	9.14	50	
Phenol	0.04564	0.010	0.1	0	45.6	12	101	0.04754	4.08	42	
Pyrene	0.04347	0.010	0.05	0	86.9	54	131	0.04519	3.88	31	

Qualifiers:
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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13061

Sample ID **0406042-013BMS** SampType: **MS** TestCode: **VOC_SPLP** Units: **mg/L** Prep Date: Run ID: **VOA-2_040615A**
Client ID: **ZZZZZ** Batch ID: **R13061** TestNo: **SW1312/8260** Analysis Date: **6/15/2004** SeqNo: **248324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	0.6514	0.050	0.5	0.1713	96	70	130	0	0		B
Benzene	0.5923	0.050	0.5	0.0833	102	76	127	0	0		
Bromodichloromethane	0.4615	0.050	0.5	0	92.3	70	130	0	0		
Bromoform	0.4897	0.050	0.5	0	97.9	70	130	0	0		
Bromomethane	0.4348	0.050	0.5	0	87	70	130	0	0		
2-Butanone	0.5043	0.050	0.5	0	101	70	130	0	0		
Carbon disulfide	0.5773	0.050	0.5	0	115	70	130	0	0		
Carbon tetrachloride	0.4982	0.050	0.5	0	99.6	70	130	0	0		
Chlorobenzene	0.5013	0.050	0.5	0	100	75	130	0	0		
Dibromochloromethane	0.4895	0.050	0.5	0	97.9	70	130	0	0		
Chloroethane	0.503	0.050	0.5	0	101	70	130	0	0		
Chloroform	0.4832	0.050	0.5	0	96.6	70	130	0	0		
Chloromethane	0.4234	0.050	0.5	0	84.7	70	130	0	0		
1,1-Dichloroethane	0.499	0.050	0.5	0	99.8	70	130	0	0		
1,2-Dichloroethane	0.5012	0.050	0.5	0	100	70	130	0	0		
1,1-Dichloroethene	0.4713	0.050	0.5	0	94.3	61	145	0	0		
cis-1,2-Dichloroethene	0.4847	0.050	0.5	0	96.9	70	130	0	0		
trans-1,2-Dichloroethene	0.4883	0.050	0.5	0	97.7	70	130	0	0		
1,2-Dichloropropane	0.5209	0.050	0.5	0	104	70	130	0	0		
cis-1,3-Dichloropropene	0.5246	0.050	0.5	0	105	70	130	0	0		
trans-1,3-Dichloropropene	0.5348	0.050	0.5	0	107	70	130	0	0		
Ethylbenzene	0.5118	0.050	0.5	0.0098	100	70	130	0	0		
2-Hexanone	0.4948	0.050	0.5	0	99	70	130	0	0		
4-Methyl-2-pentanone	0.5257	0.050	0.5	0	105	70	130	0	0		
Methylene chloride	0.5088	0.050	0.5	0.0672	88.3	70	130	0	0		B
Styrene	0.4986	0.050	0.5	0	99.7	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.4848	0.050	0.5	0	97	70	130	0	0		
Tetrachloroethene	0.525	0.050	0.5	0	105	70	130	0	0		
Toluene	0.5185	0.050	0.5	0	104	76	125	0	0		
1,1,1-Trichloroethane	0.5169	0.050	0.5	0	103	70	130	0	0		
1,1,2-Trichloroethane	0.5018	0.050	0.5	0	100	70	130	0	0		

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13061

Sample ID **0406042-013BMS** SampType: **MS** TestCode: **VOC_SPLP** Units: **mg/L** Prep Date: Run ID: **VOA-2_040615A**
Client ID: **ZZZZZ** Batch ID: **R13061** TestNo: **SW1312/8260** Analysis Date: **6/15/2004** SeqNo: **248324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	0.5063	0.050	0.5	0	101	71	120	0	0		
Vinyl chloride	0.4907	0.050	0.5	0	98.1	70	130	0	0		

Sample ID **0406042-013BMSD** SampType: **MSD** TestCode: **VOC_SPLP** Units: **mg/L** Prep Date: Run ID: **VOA-2_040615A**
Client ID: **ZZZZZ** Batch ID: **R13061** TestNo: **SW1312/8260** Analysis Date: **6/15/2004** SeqNo: **248325**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	0.7264	0.050	0.5	0.1713	111	70	130	0.6514	10.9	15	B
Benzene	0.5864	0.050	0.5	0.0833	101	76	127	0.5923	1.00	15	
Bromodichloromethane	0.4471	0.050	0.5	0	89.4	70	130	0.4615	3.17	15	
Bromoform	0.4829	0.050	0.5	0	96.6	70	130	0.4897	1.40	15	
Bromomethane	0.4253	0.050	0.5	0	85.1	70	130	0.4348	2.21	15	
2-Butanone	0.5791	0.050	0.5	0	116	70	130	0.5043	13.8	15	
Carbon disulfide	0.5581	0.050	0.5	0	112	70	130	0.5773	3.38	15	
Carbon tetrachloride	0.4787	0.050	0.5	0	95.7	70	130	0.4982	3.99	15	
Chlorobenzene	0.4842	0.050	0.5	0	96.8	75	130	0.5013	3.47	15	
Dibromochloromethane	0.4828	0.050	0.5	0	96.6	70	130	0.4895	1.38	15	
Chloroethane	0.4907	0.050	0.5	0	98.1	70	130	0.503	2.48	15	
Chloroform	0.4722	0.050	0.5	0	94.4	70	130	0.4832	2.30	15	
Chloromethane	0.4208	0.050	0.5	0	84.2	70	130	0.4234	0.616	15	
1,1-Dichloroethane	0.4971	0.050	0.5	0	99.4	70	130	0.499	0.381	15	
1,2-Dichloroethane	0.4959	0.050	0.5	0	99.2	70	130	0.5012	1.06	15	
1,1-Dichloroethene	0.4489	0.050	0.5	0	89.8	61	145	0.4713	4.87	15	
cis-1,2-Dichloroethene	0.4885	0.050	0.5	0	97.7	70	130	0.4847	0.781	15	
trans-1,2-Dichloroethene	0.4882	0.050	0.5	0	97.6	70	130	0.4883	0.0205	15	
1,2-Dichloropropane	0.5071	0.050	0.5	0	101	70	130	0.5209	2.68	15	
cis-1,3-Dichloropropene	0.4966	0.050	0.5	0	99.3	70	130	0.5246	5.48	15	
trans-1,3-Dichloropropene	0.5287	0.050	0.5	0	106	70	130	0.5348	1.15	15	
Ethylbenzene	0.4964	0.050	0.5	0.0098	97.3	70	130	0.5118	3.05	15	
2-Hexanone	0.4785	0.050	0.5	0	95.7	70	130	0.4948	3.35	15	
4-Methyl-2-pentanone	0.5241	0.050	0.5	0	105	70	130	0.5257	0.305	15	

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13061

Sample ID **0406042-013BMSD** SampType: **MSD** TestCode: **VOC_SPLP** Units: **mg/L** Prep Date: Run ID: **VOA-2_040615A**
Client ID: **ZZZZZ** Batch ID: **R13061** TestNo: **SW1312/8260** Analysis Date: **6/15/2004** SeqNo: **248325**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	0.5165	0.050	0.5	0.0672	89.9	70	130	0.5088	1.50	15	B
Styrene	0.4818	0.050	0.5	0	96.4	70	130	0.4986	3.43	15	
1,1,2,2-Tetrachloroethane	0.4905	0.050	0.5	0	98.1	70	130	0.4848	1.17	15	
Tetrachloroethene	0.5125	0.050	0.5	0	103	70	130	0.525	2.41	15	
Toluene	0.4978	0.050	0.5	0	99.6	76	125	0.5185	4.07	15	
1,1,1-Trichloroethane	0.4845	0.050	0.5	0	96.9	70	130	0.5169	6.47	15	
1,1,2-Trichloroethane	0.4909	0.050	0.5	0	98.2	70	130	0.5018	2.20	15	
Trichloroethene	0.5011	0.050	0.5	0	100	71	120	0.5063	1.03	15	
Vinyl chloride	0.4827	0.050	0.5	0	96.5	70	130	0.4907	1.64	15	

Sample ID **VBLK061504-2** SampType: **MBLK** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-2_040615A**
Client ID: **ZZZZZ** Batch ID: **R13061** TestNo: **SW8260B** Analysis Date: **6/15/2004** SeqNo: **248317**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0050									
1,1,2,2-Tetrachloroethane	ND	0.0050									
1,1,2-Trichloroethane	ND	0.0050									
1,1-Dichloroethane	ND	0.0050									
1,1-Dichloroethene	ND	0.0050									
1,2-Dibromoethane	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
1,2-Dichloropropane	ND	0.0050									
1,3,5-Trimethylbenzene	ND	0.0050									
1,3-Butadiene	ND	0.010									*
1,4-Dioxane	ND	0.10									
1-Ethyl-2-methylbenzene	ND	0.0050									*
2-Butanone	ND	0.010									
2-Hexanone	ND	0.010									
4-Methyl-2-pentanone	ND	0.010									
Acetone	0.00509	0.010									J
Acrolein	ND	0.050									

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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13061

Sample ID **VBLK061504-2** SampType: **MBLK** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-2_040615A**
Client ID: **ZZZZZ** Batch ID: **R13061** TestNo: **SW8260B** Analysis Date: **6/15/2004** SeqNo: **248317**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acrylonitrile	ND	0.0050									
Benzene	ND	0.0050									
Bromodichloromethane	ND	0.0050									
Bromoform	ND	0.0050									
Bromomethane	ND	0.010									
Carbon disulfide	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroethane	ND	0.010									
Chloroform	ND	0.0050									
Chloromethane	ND	0.010									
cis-1,2-Dichloroethene	ND	0.0050									
cis-1,3-Dichloropropene	ND	0.0050									
Dibromochloromethane	ND	0.0050									
Ethylbenzene	ND	0.0050									
m,p-Xylene	ND	0.0050									
Methylene chloride	ND	0.0050									
o-Xylene	ND	0.0050									
Styrene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	ND	0.0050									
trans-1,2-Dichloroethene	ND	0.0050									
trans-1,3-Dichloropropene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									

Sample ID **VLCS061504-2** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-2_040615A**
Client ID: **ZZZZZ** Batch ID: **R13061** TestNo: **SW8260B** Analysis Date: **6/15/2004** SeqNo: **248318**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05152	0.0050	0.05	0	103	70	130	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13061

Sample ID **VLCS061504-2** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-2_040615A**
Client ID: **ZZZZZ** Batch ID: **R13061** TestNo: **SW8260B** Analysis Date: **6/15/2004** SeqNo: **248318**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	0.04952	0.0050	0.05	0	99	70	130	0	0		
1,1,2-Trichloroethane	0.05216	0.0050	0.05	0	104	70	130	0	0		
1,1-Dichloroethane	0.05152	0.0050	0.05	0	103	70	130	0	0		
1,1-Dichloroethene	0.04707	0.0050	0.05	0	94.1	70	130	0	0		
1,2-Dibromoethane	0.05191	0.0050	0.05	0	104	70	130	0	0		
1,2-Dichloroethane	0.04991	0.0050	0.05	0	99.8	70	130	0	0		
1,2-Dichloropropane	0.05403	0.0050	0.05	0	108	70	130	0	0		
1,3,5-Trimethylbenzene	0.05034	0.0050	0.05	0	101	70	130	0	0		
1,4-Dioxane	0.6154	0.10	0.5	0	123	50	150	0	0		
2-Butanone	0.06436	0.010	0.05	0	129	70	130	0	0		
2-Hexanone	0.05544	0.010	0.05	0	111	70	130	0	0		
4-Methyl-2-pentanone	0.05294	0.010	0.05	0	106	70	130	0	0		
Acetone	0.1015	0.010	0.05	0.00509	193	50	150	0	0		S
Acrolein	0.04444	0.050	0.05	0	88.9	50	150	0	0		J
Acrylonitrile	0.05792	0.0050	0.05	0	116	70	130	0	0		
Benzene	0.05239	0.0050	0.05	0	105	70	130	0	0		
Bromodichloromethane	0.0475	0.0050	0.05	0	95	70	130	0	0		
Bromoform	0.05114	0.0050	0.05	0	102	70	130	0	0		
Bromomethane	0.04276	0.010	0.05	0	85.5	70	130	0	0		
Carbon disulfide	0.05809	0.0050	0.05	0	116	70	130	0	0		
Carbon tetrachloride	0.05071	0.0050	0.05	0	101	70	130	0	0		
Chlorobenzene	0.05182	0.0050	0.05	0	104	70	130	0	0		
Chloroethane	0.05027	0.010	0.05	0	101	70	130	0	0		
Chloroform	0.04869	0.0050	0.05	0	97.4	70	130	0	0		
Chloromethane	0.04316	0.010	0.05	0	86.3	70	130	0	0		
cis-1,2-Dichloroethene	0.05001	0.0050	0.05	0	100	70	130	0	0		
cis-1,3-Dichloropropene	0.05235	0.0050	0.05	0	105	70	130	0	0		
Dibromochloromethane	0.05209	0.0050	0.05	0	104	70	130	0	0		
Ethylbenzene	0.05143	0.0050	0.05	0	103	70	130	0	0		
m,p-Xylene	0.1051	0.0050	0.1	0	105	70	130	0	0		
Methylene chloride	0.04502	0.0050	0.05	0	90	70	130	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13061

Sample ID **VLCS061504-2** SampType: **LCS** TestCode: **VOC_W+** Units: **mg/L** Prep Date: Run ID: **VOA-2_040615A**
Client ID: **ZZZZZ** Batch ID: **R13061** TestNo: **SW8260B** Analysis Date: **6/15/2004** SeqNo: **248318**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	0.05155	0.0050	0.05	0	103	70	130	0	0		
Styrene	0.05129	0.0050	0.05	0	103	70	130	0	0		
Tetrachloroethene	0.05583	0.0050	0.05	0	112	70	130	0	0		
Toluene	0.0508	0.0050	0.05	0	102	70	130	0	0		
trans-1,2-Dichloroethene	0.04972	0.0050	0.05	0	99.4	70	130	0	0		
trans-1,3-Dichloropropene	0.05448	0.0050	0.05	0	109	70	130	0	0		
Trichloroethene	0.05214	0.0050	0.05	0	104	70	130	0	0		
Vinyl chloride	0.05011	0.0050	0.05	0	100	70	130	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9760

Sample ID TCNMBW1 061004 SampType: MBLK TestCode: CN_TW Units: mg/L Prep Date: 6/10/2004 Run ID: LACHAT_040611D
Client ID: ZZZZZ Batch ID: 9760 TestNo: SW9012A Analysis Date: 6/11/2004 SeqNo: 247658

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.0050									

Sample ID TCNLCSW1 061004 SampType: LCS TestCode: CN_TW Units: mg/L Prep Date: 6/10/2004 Run ID: LACHAT_040611D
Client ID: ZZZZZ Batch ID: 9760 TestNo: SW9012A Analysis Date: 6/11/2004 SeqNo: 247659

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.203	0.0050	0.2	0	101	90	110	0	0		

Sample ID 0406078-001DMS SampType: MS TestCode: CN_TW Units: mg/L Prep Date: 6/10/2004 Run ID: LACHAT_040611D
Client ID: HAS-MWRD-004 Batch ID: 9760 TestNo: SW9012A Analysis Date: 6/11/2004 SeqNo: 247661

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.3615	0.0050	0.2	0.1488	106	75	125	0	0		

Sample ID 0406078-001DMSD SampType: MSD TestCode: CN_TW Units: mg/L Prep Date: 6/10/2004 Run ID: LACHAT_040611D
Client ID: HAS-MWRD-004 Batch ID: 9760 TestNo: SW9012A Analysis Date: 6/11/2004 SeqNo: 247662

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.3395	0.0050	0.2	0.1488	95.3	75	125	0.3615	6.29	20	

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CLIENT: Burns & McDonnell
Work Order: 0406078
Project: 29168, Peoples Gas- Hawthorne Regualtor Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R12971

Sample ID **MBLK** SampType: **MBLK** TestCode: **OG_W** Units: **mg/L** Prep Date: **6/8/2004** Run ID: **BALANCE_040608D**
Client ID: **ZZZZZ** Batch ID: **R12971** TestNo: **E1664** Analysis Date: **6/9/2004** SeqNo: **246371**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	ND	5.0									*

Sample ID **LCS** SampType: **LCS** TestCode: **OG_W** Units: **mg/L** Prep Date: **6/8/2004** Run ID: **BALANCE_040608D**
Client ID: **ZZZZZ** Batch ID: **R12971** TestNo: **E1664** Analysis Date: **6/9/2004** SeqNo: **246372**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	68.2	5.0	80	0	85.2	78	114	0	0		*

Sample ID **LCSD** SampType: **LCSD** TestCode: **OG_W** Units: **mg/L** Prep Date: **6/8/2004** Run ID: **BALANCE_040608D**
Client ID: **ZZZZZ** Batch ID: **R12971** TestNo: **E1664** Analysis Date: **6/9/2004** SeqNo: **246373**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil and Grease (HEM)	70.4	5.0	80	0	88	78	114	68.2	3.17	20	*

Qualifiers:
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APPENDIX L
SVE LIQUID DISPOSAL MANIFESTS
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. — Manifest Document No. 69195

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: THE PEOPLES GAS LIGHT + COKE COMPANY, 130 E RANDOLPH DRIVE, CHICAGO, IL 60601, ATTN: A. MILLERICK

Location If Different: WILLOW ST. STATION MGP, KINGSBURY/WILLOW, CHICAGO, IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL1080631 5 — FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 031607002 2

C. Transporter's ID Number: UPM 035046 1IL

D. Transporter's Phone: (630) 529-0240

E. Transporter's ID Number:

F. Transporter's Phone: ( )

G. Facility's IL ID Number: 031 03 9 00 01

H. Facility's Phone: (773) 646-3099

5. Transporter 1 Company Name: NORTH BRANCH ENVIRONMENTAL — 6. US EPA ID Number: ILR000052977

7. Transporter 2 Company Name — 8. US EPA ID Number:

9. Designated Facility Name and Site Address: CID - BIOLOGICAL TREATMENT FACILITY BLTC, 138TH AND BISHOP FORD FREEWAY, CALUMET CITY, IL 60409 — 10. US EPA ID Number: ILD102842488

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. NOT HAZARDOUS BY DOT - GROUNDWATER FROM FORMER MGP SITE	001	TT	03450	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: CLASS A PROFILE EF1389W

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information: IN CASE OF EMERGENCY CONTACT 630/529-0240

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR — Printed /Typed Name: ALISON MILLERICK - PEOPLES GAS — Signature: BURNS + McDONNELL AGENT FOR PEOPLES GAS — Date (Month Day Year): 031504

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials — Printed /Typed Name: KEN SEBESTA — Signature: Ken Sebesta — Date (Month Day Year): 031504

18. Transporter 2 Acknowledgement of Receipt of Materials — Printed /Typed Name: — Signature: — Date (Month Day Year):

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. — Printed /Typed Name: — Signature: — Date (Month Day Year): 031504

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 69278

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
PEOPLES GAS LIGHT & COKE CO.
130 E. RANDOLPH, 20TH FLOOR
CHICAGO, IL 60601 ATTN: A. MILLERICK

Location If Different
WILLOW ST STATION MGP
KINGSBURY & WILLOW
CHICAGO, IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10806316 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 031 6070022

C. Transporter's ID Number UPM 0350461IL

D. Transporter's Phone (630) 529-0240

E. Transporter's ID Number

F. Transporter's Phone ( )

G. Facility's IL ID Number 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone (773) 646-3099

5. Transporter 1 Company Name: NORTH BRANCH ENVIRONMENTAL
6. US EPA ID Number: I L R 0 0 0 0 5 2 9 7 7

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
CID - BIOLOGICAL TREATMENT FACILITY
138TH AND BISHOP FORD FREEWAY
CALUMET CITY, IL 60409
10. US EPA ID Number: I L D 0 1 0 2 8 4 2 4 8

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. NOT HAZARDOUS BY D.O.T. WASTE GROUNDWATER FROM FORMER MGP SITE	001	TT	038	50 G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
CLASS A
PROFILE EF 1389 W

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information
IN CASE OF EMERGENCY CONTACT 630/529-0240

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: ALISON MILLERICK
Signature: AGENT FOR PEOPLES GAS
Date: Month 03 Day 19 Year 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed /Typed Name: KEN SEBESTA
Signature: Ken Sebesta
Date: Month 03 Day 19 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed /Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed /Typed Name
Signature
Date: Month 03 Day 19 Year 04

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 69357

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address Co
130 E Randolph Drive 20th Floor
Chicago IL 60601 ATTN A Millerick

Location if Different Station DUS
~~Kingsbury & Willow Sts~~ 1729 N Kingsbury
Chicago IL
HAWTHORNE REGULATOR STATION

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832105 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number

D. Transporter's Phone (0 2 4 0)

E. Transporter's ID Number 0 3 0 5 2 3 0 2 4 0

F. Transporter's Phone ( )

G. Facility's IL ID Number 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone (7 7 3 6 4 6 3 0 9 9)

5. Transporter 1 Company Name: North Branch Environmental
6. US EPA ID Number

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address: CID RDF BLTC
138th & Bishop Ford Fwy
Calumet City IL 60409
10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT grounwater from former MGP site	0 0	1 T	05050	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile ~~EF 1389W~~ DUS
EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Alison Millerick
Signature: Alison Millerick
Date (Month Day Year): 032504

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed /Typed Name: KEN SEBESTA
Signature: Ken Sebesta
Date (Month Day Year): 032504

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed /Typed Name
Signature
Date (Month Day Year)

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed /Typed Name
Signature
Date (Month Day Year): 032504

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 69405

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different Station
Kingsbury & willow St
Chicago IL
1721 N. KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832219 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number UPM 0350461

D. Transporter's Phone 6 3 0 6 2 9 0 2 4 6

5. Transporter 1 Company Name
North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
CID RDF Big Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

G. Facility's IL ID Number 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	T	05225	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL)

Date: Month 03 Day 30 Year 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: KEN SEBESTA

Signature: Ken Sebesta

Date: Month 03 Day 30 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name: IL GM

Signature

Date: Month Day Year 03 30 04

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 69442

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different Station
Kingsbury & willow St
Chicago IL
1721 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832220 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number UPM 0350461 ~~0 2 0 1~~

D. Transporter's Phone ( ) ~~0 3 0 5 2 9 0 2 4 0~~

5. Transporter 1 Company Name
North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

9. Designated Facility Name and Site Address
CID RDF Bid Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No. EPA HW Number
a. Not hazardous by DOT MGP groundwater	001	TT	03050	G	
b.					
c.					
d.					

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BRIENS + McDONNELL)

Date: Month 04 Day 02 Year 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: KEN SEBESTA

Signature: Ken Sebesta

Date: Month 04 Day 02 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name: Jim Gil

Signature

Date: Month 04 Day 02 Year 04

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. — Manifest Document No. 69474

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Light & Coke Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location If Different: Kingsbury & willow St, Chicago IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 1721 N KINGSBURY

A. Illinois Manifest Document Number: IL10832221 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: UPM 350461 0 2 0 4

D. Transporter's Phone ( ) 6 3 0 5 2 9 0 2 4 0

E. Transporter's ID Number:

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

G. Facility's IL ID Number:

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number:

7. Transporter 2 Company Name:

8. US EPA ID Number:

9. Designated Facility Name and Site Address: CID RDF Bio Soil Facility, 138th & Bishop Ford Fwy - Calumet City IL 60409

10. US EPA ID Number:

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	03325	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick — Signature: AGENT FOR PEOPLES GAS D Scott (BURNS + McDONNELL) — Date: Month 04 Day 06 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: KEN SEBESTA — Signature: Ken Sebesta — Date: Month 04 Day 06 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name: — Signature: — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name: [signature] — Signature: [signature] — Date: Month 04 Day 06 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 169926

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law

3. Generator's Name and Mailing Address
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different: Station
Kingsbury & willow St
Chicago IL
1721 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832222 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter ID Number UPM 0350461 6 2 0 4 6 3 0 5 2 9 0 2 4 0

D. Transporter's Phone ( )

5. Transporter 1 Company Name: North Branch Environmental 6. US EPA ID Number

7. Transporter 2 Company Name 8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

9. Designated Facility Name and Site Address 10. US EPA ID Number
CID RLF Bld Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No. EPA HW Number
a. Not hazardous by DOT MGP groundwater	001	TI	049.00	G	
b.					
c.					
d.					

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR

Printed /Typed Name: Alison Millerick
Signature: AGENT FOR PEOPLES GAS (BURNS & McDONNELL)
Date: Month 04 Day 13 Year 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed /Typed Name: KEN SEBESTA
Signature: Ken Sebesta
Date: Month 04 Day 13 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed /Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed /Typed Name
Signature
Date: Month Day Year 041304

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 69582

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Light & Coke Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different
Kingsbury & willow St
Chicago IL
17-21 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832223 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number UPM 350461 ~~0 2 0 1~~

D. Transporter's Phone ( ) 0 3 0 5 2 9 0 2 4 0

5. Transporter 1 Company Name North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

9. Designated Facility Name and Site Address
CID RDF Bio ~~Fa~~ Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	5400	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14
GALLONS

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: Alison Millerick
Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL) D Scott
Date: Month 04 Day 22 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed /Typed Name: M Swartz
Signature: M Swartz
Date: Month 04 Day 22 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed /Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.
Printed /Typed Name: Bob Smith
Signature: Bob Mills
Date: Month 04 Day 22 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 69673 | 2. Page 1 of | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Light & Coke Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location if Different: Northerne Station, Kingsbury & willow St, Chicago IL 1721 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL10832224 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0316070022

C. Transporter's ID Number: UPM 350461 ~~0204~~

D. Transporter's Phone ( ) 0305290240

E. Transporter's ID Number

F. Transporter's Phone ( ) 0310390001

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name: North Branch Environmental | 6. US EPA ID Number

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address: CID ~~(RDP Bio Soil Facility)~~ BLTC, 138th & Bishop Ford Fwy, Calumet City IL 60409 | 10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	4200	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14: GALLONS

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick | Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL) | Date Month Day Year: 04 28 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: M Sworth | Signature: [signature] | Date Month Day Year: 04 28 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name | Signature | Date Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed /Typed Name: Steven E Reed | Signature: [signature] | Date Month Day Year: 04 28 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 69625

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different Station
Kingsbury & willow St
Chicago IL
1721 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832226 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( ) 6 3 0 5 2 9 0 2 4 0

5. Transporter 1 Company Name
North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( ) 6 3 1 0 3 9 0 0 0 1

9. Designated Facility Name and Site Address
CID RDF Bio-[redacted] Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	04475	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS & McDONNELL)

Date: Month 05 Day 05 Year 04

GENERATOR

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: KEN SEBESTA

Signature: Ken Sebesta

Date: Month 05 Day 05 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

TRANSPORTER

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted]dous materials covered by this manifest except as noted in item 19.

Printed /Typed Name

Signature

Date: Month 05 Day 05 Year 04

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 69842

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different Station
Kingsbury & willow St
Chicago IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 1721 N KINGSBURY

A. Illinois Manifest Document Number IL10832227 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( ) 0 3 0 5 2 9 0 2 4 6

5. Transporter 1 Company Name
North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

9. Designated Facility Name and Site Address
CID RDF Bio [redacted] Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	02950	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR

Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL)

Date: Month Day Year 05 12 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: KEN SEBESTA

Signature: Ken Sebesta

Date: Month Day Year 05 12 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name

Signature

Date: Month Day Year 05 12 04

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

STATE OF ILLINOIS

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 169871

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Light & Coke Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different: Station
Kingsbury & willow St
Chicago IL
1721 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832228 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( ) 6 3 6 5 2 3 0 2 4 0

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CID RDF Bld Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	05400	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR

Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL)

Date: Month Day Year 05 18 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: RICK GRABINSKI

Signature

Date: Month Day Year 05 19 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed /Typed Name

Signature

Date: Month Day Year 05 19 04

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 70072

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location if Different: Station
Kingsbury & willow St
Chicago IL
1721 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832229 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( ) 6 3 0 5 2 9 0 2 4 0

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
CID RDF Bio [redacted] Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

G. Facility's IL ID Number 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone ( ) 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	5500	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR

Printed /Typed Name: Alison Millerick

Signature

Date: Month Day Year 0 5 2 5 0 4

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: TERRY PUFFER

Signature

Date: Month Day Year 0 5 2 5 0 4

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name

Signature

Date: Month Day Year 0 5 2 5 0 4

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 70101

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Light & Coke Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location if Different: Northerne Station
Kingsbury & willow St
Chicago IL
1729 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL10832230 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: 0 2 0 4

D. Transporter's Phone ( ) 6 3 0 5 2 9 0 2 4 0

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CID RDF Bio Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	03800	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS & McDONNELL)

Date: Month 05 Day 28 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: RICK GRABINSKI

Signature: [signature]

Date: Month 05 Day 28 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed /Typed Name: Rick Kalemba

Signature: Rick Kalemba

Date: Month 05 Day 28 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. — Manifest Document No. 70102

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Light & Coke Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location If Different: Northwestern Station, Kingsbury & willow St, Chicago IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL10832231 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: UPM 350461 ~~0 2 0 4~~

D. Transporter's Phone ( ) 0 3 0 5 2 9 0 2 4 0

E. Transporter's ID Number

F. Transporter's Phone ( )

G. Facility's IL ID Number: 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address: CID RDF Bio Soil Facility, 138th & Bishop Ford Fwy, Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	3800	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14: GALLONS

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: Alison Millerick — Signature: AGENT FOR PEOPLES GAS (BURNS & McDONNELL) — Date: Month 06 Day 01 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: [signature] — Signature: [signature] — Date: Month 06 Day 01 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name — Signature — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed /Typed Name: [signature] — Signature: [signature] — Date: Month 06 Day 01 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 70145

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Light & Coke Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location If Different: Northerne Station, Kingsbury & willow St, Chicago IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 1729 N KINGSBURY

A. Illinois Manifest Document Number: IL10832232 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: 0 2 0 4

D. Transporter's Phone ( ) 6 3 0 5 2 9 0 2 4 6

E. Transporter's ID Number

F. Transporter's Phone ( )

G. Facility's IL ID Number: 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address: CID RDF Bio ~~Gas~~ Facility, 138th & Bishop Ford Fwy, Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	03000	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS & McDONNELL)

Date: Month 06 Day 04 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: RICK GRABINSKI

Signature

Date: Month 06 Day 04 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name

Signature

Date: Month 06 Day 04 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 70253

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different Than Above
Station
Kingsbury & willow St
Chicago IL
1729 N KINGSBURY

A. Illinois Manifest Document Number IL10832233 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( ) 0 3 0 5 2 9 0 2 4 0

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

5. Transporter 1 Company Name: North Branch Environmental — 6. US EPA ID Number

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address
CID RDF Bio[redacted] Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No. EPA HW Number
a. Not hazardous by DOT MGP groundwater	001	TT	03000	G	
b.					
c.					
d.					

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: Alison Millerick — Signature: AGENT FOR PEOPLES GAS (BURNS+McDONNELL) — Date (Month Day Year): 06 11 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: RICK GRABINSKY — Signature: — Date (Month Day Year): 06 11 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name — Signature — Date (Month Day Year):

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name — Signature — Date (Month Day Year): 06 11 04

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 10293

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address Peoples Gas Light & Coke Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different Former Station
Kingsbury & willow St
Chicago IL
1729 N. KINGSBURY

A. Illinois Manifest Document Number IL10832234 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( )

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

5. Transporter 1 Company Name: North Branch Environmental — 6. US EPA ID Number

7. Transporter 2 Company Name — 8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address CID RDF Bio Facility
138th & Bishop Ford Fwy
Calumet City IL 60409 — 10. US EPA ID Number

G. Facility's IL ID Number 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone (773 646-3099)

GENERATOR

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No. / EPA HW Number
a.	Not hazardous by DOT MGP groundwater	001	T	030000	G	
b.						
c.						
d.						

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: Alison Millerick — Signature: AGENT FOR PEOPLES GAS (Burns & McDonnell) — Date (Month Day Year): 061504

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: RICK GRABINSKI — Signature — Date (Month Day Year): 061504

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name — Signature — Date (Month Day Year):

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name — Signature — Date (Month Day Year): 061504

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location If Different: Station, Kingsbury & willow St, Chicago IL, 1729 N. Kingsbury

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL10832235 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: 0 2 0 4

D. Transporter's Phone: 6 3 8 5 2 3 0 2 4 6

E. Transporter's ID Number:

F. Transporter's Phone: 0 3 1 0 3 9 0 0 0 1

G. Facility's IL ID Number:

H. Facility's Phone: 773 646-3099

5. Transporter 1 Company Name: North Branch Environmental | 6. US EPA ID Number

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address: CID RDF Bio Soil Facility, 138th & Bishop Ford Fwy, Calumet City IL 60409 | 10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	4138	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR

Printed /Typed Name: Alison Millerick | Signature: AGENT FOR PEOPLES GAS (BURNS & McDONNELL) | Date: 06 24 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: TERRY AFFER | Signature | Date: 062404

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name | Signature | Date

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted]ous materials covered by this manifest except as noted in item 19.

Printed /Typed Name | Signature | Date: 062404

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

STATE OF ILLINOIS

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF [redacted] AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 70523

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Light & Coke Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location if Different
Hornsame Station
Kingsbury & willow St
Chicago IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832236 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0316070022

C. Transporter's ID Number UPM-350461

D. Transporter's Phone ( ) 6305290240

E. Transporter's ID Number

F. Transporter's Phone ( ) 0310390001

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name
North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CID RDF Bid Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	1785	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick
Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL)
Date: Month 07 Day 02 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed /Typed Name: TERRY PUFFER
Signature: [signature]
Date: Month 07 Day 02 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed /Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of [redacted] materials covered by this manifest except as noted in item 19.
Printed /Typed Name: Steven E Reed
Signature: [signature]
Date: Month 07 Day 02 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 70557

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Light & Coke Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different Station
Kingsbury & willow St
Chicago IL
1729 N Kingsbury

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832237 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number UPM 0350461

D. Transporter's Phone ( ) 0 3 0 5 2 9 0 2 4 0

5. Transporter 1 Company Name
North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

9. Designated Facility Name and Site Address
CID RDF Bio Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	04000	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick
Signature: Agent for Peoples Gas (Brenk + McDonnell)
Date: Month 07 Day 08 Year 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed /Typed Name: KEN SEBESTA
Signature: Ken Sebest
Date: Month 07 Day 08 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed /Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.
Printed /Typed Name: Steven E Reed
Signature: Steven E Reed
Date: Month 07 Day 08 Year 04

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. — Manifest Document No. 170821

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Light & Coke Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location if Different: Hawthorne Station, Kingsbury & willow St, Chicago IL, 1729 N Kingsbury St.

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL10832238 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: 0 2 0 4

D. Transporter's Phone ( ) 6 3 0 5 2 9 0 2 4 0

5. Transporter 1 Company Name: North Branch Environmental — 6. US EPA ID Number

7. Transporter 2 Company Name — 8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

9. Designated Facility Name and Site Address: CID RDF Bio Soil Facility, 138th & Bishop Ford Fwy, Calumet City IL 60409 — 10. US EPA ID Number

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	03000	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed /Typed Name: Alison Millerick — Signature: Agent for Peoples Gas (Burns & McDonnell) — Date: Month 08 Day 03 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: RICH GRABINSKI — Signature: [signature] — Date: Month 08 Day 03 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name — Signature — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name: Bob Mills — Signature: [signature] — Date: Month 08 Day 03 Year 04

GENERATOR — TRANSPORTER — FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 70863

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location If Different: Station, Kingsbury & willow St, Chicago IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 1729 N KINGSBURY

A. Illinois Manifest Document Number IL10832239 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( ) 0 3 0 5 2 9 0 2 4 0

E. Transporter's ID Number

F. Transporter's Phone ( )

G. Facility's IL ID Number 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address: CID RDF Bio Soil Facility, 138th & Bishop Ford Fwy, Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	04100	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL)

Date: Month 08 Day 09 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: RICH GRABINSKI

Signature: R Grabinski

Date: Month 08 Day 09 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name

Signature

Date: Month 08 Day 09 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 020994

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Light & Coke Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location If Different: Illinois Station, Kingsbury & willow St, Chicago IL 1729 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL10832240 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0316070022

C. Transporter's ID Number: 0204

D. Transporter's Phone ( ) 6385290240

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address: CID RDF Bio Soil Facility, 138th & Bishop Ford Fwy, Calumet City IL 60409

10. US EPA ID Number

G. Facility's IL ID Number: 0310390001

H. Facility's Phone ( ) 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	04300	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL)

Date: Month 08 Day 19 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: Jim Suerth

Signature: [signature]

Date: Month 08 Day 19 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name: [signature]

Signature: [signature]

Date: Month 08 Day 19 Year 04

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 70976

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different
Kingsbury & willow St
Chicago IL
1729 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832241 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( ) 0 3 0 5 2 9 0 2 4 6

E. Transporter's ID Number

F. Transporter's Phone ( )

G. Facility's IL ID Number 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name
North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CID RDF Bio Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	038000	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick
Signature: AGENT FOR ~~BURNS~~ PEOPLES GAS + McDONNELL (BURNS + McDONNELL)
Date: Month 08 Day 27 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed /Typed Name: RICH GRABINSKI
Signature: R. Grabinski
Date: Month 08 Day 27 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed /Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed /Typed Name
Signature
Date: Month 08 Day 27 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Light & Coke Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location If Different: Northerne Station ~~Kingsbury & Willow St~~ Chicago IL 1729 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

5. Transporter 1 Company Name: North Branch Environmental | 6. US EPA ID Number

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address: CID RDF Bio Soil Facility, 138th & Bishop Ford Fwy, Calumet City IL 60409 | 10. US EPA ID Number

A. Illinois Manifest Document Number: IL10832242 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: 0 2 0 4

D. Transporter's Phone ( ) 3 3 0 5 2 9 0 2 4 0

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	5400	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick | Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL) | Date: Month 09 Day 02 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: M Swerth | Signature: [signature] | Date: Month 09 Day 02 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed /Typed Name: Rick Kalemba | Signature: Rick Kalemba | Date: Month 09 Day 02 Year 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. Manifest Document No. 71253

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Peoples Gas Light & Coke Co, 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location If Different: Hillside Station, Kingsbury & willow St, Chicago IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL10832243 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: 0 2 0 4

D. Transporter's Phone ( ) 6 3 0 5 2 9 0 2 4 0

E. Transporter's ID Number:

F. Transporter's Phone ( )

G. Facility's IL ID Number: 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number:

7. Transporter 2 Company Name:

8. US EPA ID Number:

9. Designated Facility Name and Site Address: CID RDF Bio Soil Facility, 138th & Bishop Ford Fwy, Calumet City IL 60409

10. US EPA ID Number:

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	05200	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL)

Date: Month 09 Day 08 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: RICHARD GRABINSKI

Signature:

Date: Month 09 Day 08 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name:

Signature:

Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name:

Signature:

Date: Month 09 Day 08 Year 04

GENERATOR

TRANSPORTER

FACILITY

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STATE OF ILLINOIS

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 71307

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Light & Coke Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location if Different
Former Station
Kingsbury & willow St
Chicago IL

A. Illinois Manifest Document Number IL10832244 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( )

E. Transporter's ID Number

F. Transporter's Phone ( )

G. Facility's IL ID Number 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone (773 646-3099)

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

5. Transporter 1 Company Name
North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CID RDF Bio Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	03890	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

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Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS (BURNS + McDONNELL)

Date: Month Day Year 09 15 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: RICH GRABINSKI

Signature:

Date: Month Day Year 09 15 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed /Typed Name

Signature

Date: Month Day Year 09 15 04

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COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF ~~HAZARDOUS~~ AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 71394

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Light & Coke Co
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location If Different
Kingsbury & willow St
Chicago IL

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number IL10832245 FEE PAID IF APPLICABLE

B. Generator's IL ID Number 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number 0 2 0 4

D. Transporter's Phone ( ) 0 3 0 5 2 9 0 2 4 0

E. Transporter's ID Number

F. Transporter's Phone ( ) 0 3 1 0 3 9 0 0 0 1

G. Facility's IL ID Number

H. Facility's Phone ( ) 773 646-3099

5. Transporter 1 Company Name
North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CID RDF Bio Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	TT	04000	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick
Signature: AGENT FOR PEOPLES GAS (BURNS & McDONNELL)
Date: Month Day Year 09 22 04

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed /Typed Name: GRABINSKI, RICH
Signature: R [signature]
Date: Month Day Year 09 22 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed /Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed /Typed Name: [signature]
Signature: [signature]
Date: Month Day Year 09 22 04

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM [redacted] WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 71479

2. Page 1 of

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
130 E Randolph Dr 23rd Floor
Chicago IL 60601 ATTN A Millerick

Location if Different: Former Station
Kingsbury & willow St
Chicago IL
1721 N KINGSBURY

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL10832246 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number: 0 2 0 4

D. Transporter's Phone: 0 3 0 5 2 9 0 2 4 0

5. Transporter 1 Company Name: North Branch Environmental

6. US EPA ID Number

7. Transporter 2 Company Name

8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address
CID RDF Bio Soil Facility
138th & Bishop Ford Fwy
Calumet City IL 60409

10. US EPA ID Number

G. Facility's IL ID Number: 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone: 773 646-3099

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001	T	04200	G	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed /Typed Name: Alison Millerick

Signature: AGENT FOR PEOPLES GAS / BURNS + McDONNELL DS

Date: Month 09 Day 30 Year 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: KEN SEBESTA

Signature: Ken Sebesta

Date: Month 09 Day 30 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of ~~hazardous~~ materials covered by this manifest except as noted in item 19.

Printed /Typed Name: Rick KALEMBA

Signature: Rick Kalemba

Date: Month 09 Day 30 Year 04

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 7510 | 2. Page 1 of | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: 130 E Randolph Dr 23rd Floor, Chicago IL 60601 ATTN A Millerick

Location If Different: Kingsbury & Willow St, Chicago IL 1721 N Kingsbury

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL 10832247 FEE PAID IF APPLICABLE

B. Generator's IL ID Number

C. Transporter's ID Number

D. Transporter's Phone ( )

5. Transporter 1 Company Name: North Branch Environmental | 6. US EPA ID Number

7. Transporter 2 Company Name | 8. US EPA ID Number

E. Transporter's ID Number

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address: CID NDF Bio Soil Facility, 138th & Bishop Ford Fwy, Calumet City IL 60409 | 10. US EPA ID Number

G. Facility's IL ID Number

H. Facility's Phone ( )

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP groundwater	001		01000		EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above: Class A, Profile EF 1517

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed /Typed Name: Alison Millerick | Signature: Agent for Peoples Gas [illegible] | Date: Month 10 Day 08 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed /Typed Name: [illegible] | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed /Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed /Typed Name | Signature | Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5 GENERATOR MAIL TO IEPA

APPENDIX M
SOIL PROBE LOGS
NORTH PORTION POST-REMEDIATION SAMPLING ACTIVITIES
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: SP51A
Coordinates: N 5796.822 E 5287.485		Ground Elevation: 201.28	Page: 1 of 1
Total Depth (feet): 8	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-7-04 To: 7-7-04	Logged By: Diane Saftic	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetro-meter (TSF)	PID Reading (PPM)	Remarks
201		No recovery.				P					
	1										
200						U					
	2			MC	1			1.5/4		0	
199						S					
	3	FILL, gravel.									
198						H					
	4										
197						P					
	5										
196						U					
	6			MC	2			1/4		0	
195						S					
	7	FILL: silty clay, stained black 7 - 7.5' bgs.									
194						H					
	8	EOB @ 8'									
	9										
	10										
	11										
	12										
	13										

Depth to water while drilling

Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: SP51B
Coordinates: N 5793.93 E 5286.368		Ground Elevation: 201.33	Page: 1 of 1
Total Depth (feet): 12	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-7-04	To: 7-7-04	Logged By: Diane Saftic	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
201		No recovery.		MC	1	P U S H		1.5/4			
200	1										
199	2										
198	3	FILL: gravel									
		FILL: coarse to fine sand									
197	4	FILL: gravel		MC	2	P U S H		2/4		75.1	
196	5										
195	6										
194	7	FILL: cinders, silty clay, stained black, slight odor, moist. moderate Brown silty clay with some gravel, stained dark gray									Sample 001 7 - 7.5' bgs
193	8			MC	3	P U S H		2/4		0	
192	9										
191	10	wet									
190	11										
	12	EOB @ 12'									
	13										

Depth to water while drilling

Depth to water after drilling

Drilling Log

Burns & McDonnell SINCE 1898	Project Name: Peoples Gas Hawthorne	Project No.: 29168	Boring/Monitoring Well Number: SP51C
	Coordinates: N 5793.951 E 5289.459	Ground Elevation: 201.33	Page: 1 of 2
	Total Depth (feet): 20 / Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-7-04 / To: 7-7-04	Logged By: Diane Saftic	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetro-meter (TSF)	PID Reading (PPM)	Remarks
201		No recovery.				P					
	1					U					
200											
	2			MC	1	S		1.5/4			
199											
	3	FILL: gravel.				H					
198		FILL: coarse to fine sand.									
	4	FILL: cinders, silty clay, stained black, slight odor, moist.				P					
197											
	5					U					
196											
	6			MC	2	S		2/4		66.9	
195											
	7	silty clay, stained dark gray, moist.				H					Sample 001 7 - 7.5' bgs
194											
	8					P					
193											
	9					U					
192											
	10			MC	3	S		4/4			
191											
	11					H					
190											
	12	moderate Brown silty CLAY (CL) with gray mottling, medium plasticity.				P					
189											
	13			MC	4	U		4/4			
188											

Depth to water while drilling

Depth to water after drilling

Drilling Log, continued

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne
Project Number: 29168

Boring/Monitoring Well Number: SP51C
Page: 2 of 2
Date: 7-7-04

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetro-meter (TSF)	PID Reading (PPM)	Remarks
187		moderate Brown silty CLAY (CL) with gray mottling, medium plasticity.				S					
	15			MC	4			4/4			
186						H					
	16										
185						P					
	17										
184						U					
	18			MC	5			3/4			
183						S					
	19										
182						H					
	20	EOB @ 20'									
	21										
	22										
	23										
	24										
	25										
	26										
	27										
	28										

Drilling Log

Burns & McDonnell SINCE 1898	Project Name: Peoples Gas Hawthorne	Project No.: 29168	Boring/Monitoring Well Number: SP52
	Coordinates: N 5792.853 E 5288.079	Ground Elevation: 201.34	Page: 1 of 1
	Total Depth (feet): 12 / Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04	To: 7-28-04 / Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
		ASPHALT									
201		FILL: coarse aggregate (CA6), loose, dry.				P					
	1									0	
200						U					
	2			MC	1			4/4	<0.25		
199						S					
	3									22.6	
198		FILL: moderate yellowish Brown medium to fine sand, dense, moist.				H					22.6 PID reading taken in sand FILL unit
		FILL: dark yellowish Brown silty clay, some coarse to fine sand, some slag, some cinders, little brick, dense, moist.									
	4										
197						P					
	5									12.2	
196						U					
	6			MC	2			3.2/4		64.4	
195						S					
	7	FILL: olive Gray silty clay, with black mottling, little coarse to fine sand, very soft, low plasticity, moist to wet.							1.5	2.3	
194						H					
	8										
193						P					
	9								2.75	3.6	
192		moderate yellowish Brown, silty CLAY (CL), with gray mottling, trace coarse to fine sand, very stiff, low plasticity, moist.				U					
	10			MC	3			4/4	3.5	2.5	
191						S					
	11								3.0	1.0	
190						H					
	12	EOB @ 12'									
	13										

SAMPLING

▽ Depth to water while drilling

▼ Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF02
Coordinates: N 5801.02 E 5299.111		Ground Elevation: 201.16	Page: 1 of 1
Total Depth (feet): 12	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04	To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier / Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT									
		FILL: coarse aggregate (CA6), loose, dry.				P					
200	1					U					
		slight solvent odor									
199	2			MC	1	S		4/4		304	
		FILL: moderate yellowish brown medium to fine sand, dense, moist.									
198	3	FILL: dark yellowish Brown silty clay, trace coarse to fine sand, medium stiff to stiff, low plasticity, moist.				H			0.75	1.6	
197	4					P					
196	5					U				21.8	
195	6	greenish Gray, with orange mottling		MC	2	S		3/4	1.0	32.2	Sample 001 6 - 7' bgs
194	7					H				7.6	
193	8					P					
192	9					U			1.5	5.3	
191	10			MC	3	S		4/4	3.0	6.3	
		moderate yellowish Brown silty CLAY (CL) with gray mottling, trace coarse to fine sand, very stiff, low plasticity, moist.									
190	11					H			2.5	4.1	
	12	EOB @ 12'									
	13										

SAMPLING

▽ Depth to water while drilling
▼ Depth to water after drilling

Drilling Log

Burns & McDonnell SINCE 1898	Project Name: Peoples Gas Hawthorne	Project No.: 29168	Boring/Monitoring Well Number: CF03
	Coordinates: N 5793 E 5315.454	Ground Elevation: 201.31	Page: 1 of 1
	Total Depth (feet): 12 / Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04 / To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT FILL: coarse aggregate (CA6), loose, dry.				P					
200	1					U				0	
199	2			MC	1	S		4/4			
198	3	FILL: moderate yellowish Brown medium to fine sand, trace silty clay, loose, moist.				H				10.0	
197	4	FILL: dark yellowish Brown silty clay, black staining, little coarse to fine sand, very stiff, low plasticity, moist.				P					
196	5	dark yellowish Brown to olive Gray; silty clay, little to trace coarse to fine sand				U			2.25	4.0	
195	6	at 6.1 - 6.5', black stained wood chips, trace cinders.		MC	2	S		3.4/4	1.0	19.3	Sample 002 6 - 7' bgs
194	7	olive Gray to greenish Gray silty clay, trace medium to fine sand				H			2.75	8.6	Sample 001 7 - 8' bgs
193	8					P					
192	9					U			2.0	0	
191	10	dark yellowish Brown silty CLAY (CL), trace coarse to fine sand, very stiff, low plasticity, moist.		MC	3	S		4/4			
190	11					H			3.75	0	
	12	EOB @ 12'									
	13										

Depth to water while drilling

Depth to water after drilling

Drilling Log

Burns & McDonnell SINCE 1898	Project Name: Peoples Gas Hawthorne	Project No.: 29168	Boring/Monitoring Well Number: CF04A
	Coordinates: N 5781.76 E 5278.505	Ground Elevation: 201.23	Page: 1 of 1
	Total Depth (feet): 10.5 / Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04 / To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetro-meter (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT									
		FILL: coarse aggregate (CA6), loose, dry.				P					
200	1					U					
199	2			MC	1	S		4/4		11.9	
198	3	FILL: moderate yellowish Brown medium to fine sand, loose, moist.				H					
197	4	FILL: medium dark Gray, cinders, slag, coal tar odor, some silt, some to little wood chips, little brick, moist.				P					
196	5					U				85.7	
195	6			MC	2	S		2/4		62.8	
194	7	black staining 7' - 7.4' bgs, wood fibers at 7.4' bgs				H					
193	8	moderate yellowish Brown to greenish Gray silty CLAY (CL), black staining, trace medium to fine sand, soft, low plasticity, wet.				P					
192	9			MC	3	U / S		1.2/2.5	0.5	6.5 / 2.1	
191	10					H					
		Refusal at 10.5' bgs - EOB									
	11										
	12										
	13										

Depth to water while drilling

Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF04B
Coordinates: N 5781.014 E 5279.041		Ground Elevation: 201.32	Page: 1 of 1
Total Depth (feet): 10.5	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04	To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetro-meter (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT									
		FILL: coarse aggregate (CA6), loose, moist.				P					
	1									0	
200						U					
	2			MC	1			4/4			
199						S					
	3									0	
198		FILL: moderate yellowish Brown, medium to fine sand, loose, moist.				H					
		FILL: medium dark Gray, cinders, slag, coarse to fine sand, stained black, some silt, some wood chips, trace brick, moist.									
	4										
197						P					
	5										
196						U					
	6			MC	2			1/4		4.1	
195						S					
	7										
194						H					
	8										
193						P					
		Due to the coarse granular soil matrix of the fill materials, poor sample recovery was obtained within sample interval MC-3.									
	9					U					
192				MC	3			0.6/4		0	
	10					S					
191						H					
		Refusal at 10.5' - EOB									
	11										
	12										
	13										

Depth to water while drilling

Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne	Project No.: 29168	Boring/Monitoring Well Number: CF04C	
Coordinates: N 5783.322 E 5279.735	Ground Elevation: 201.23	Page: 1 of 1	
Total Depth (feet): 10.5	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04	To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT									
		FILL: coarse aggregate (CA6), loose, moist.				P					
200	1					U				0	
199	2			MC	1	S		4/4			
198	3	FILL: moderate yellowish Brown medium to fine sand, loose, moist.				H				0	
		FILL: medium dark Gray, cinders, slag, silt, stained black, strong coal tar odor, some wood chips, little brick, little coarse to fine sand, dense, moist.									
197	4					P					
196	5					U				0	
195	6			MC	2	S		1.4/4			
194	7					H				595	Sample 001 7-8' bgs
193	8	8 - 8.7', fine gravel, some coarse to fine sand, saturated				P					
192	9			MC	3	U		1.6/2.5		3.7	
		saturated to wet.				S					
191	10					H					
		Refusal at 10.5' - EOB									
	11										
	12										
	13										

Depth to water while drilling
Depth to water after drilling

Drilling Log

Burns & McDonnell SINCE 1898	Project Name: Peoples Gas Hawthorne	Project No.: 29168	Boring/Monitoring Well Number: CF04D
	Coordinates: N 5784.274 E 5284.162	Ground Elevation: 201.30	Page: 1 of 1
	Total Depth (feet): 12 / Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04	To: 7-28-04 / Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT FILL: coarse aggregate (CA6), loose, dry.				P					
200	1					U				0	
199	2			MC	1	S		4/4			
198	3	FILL: moderate yellowish Brown medium to fine sand, loose, moist.				H			0.5	3.7	Sample 001 3-4' bgs
197	4	FILL: moderate yellowish Brown silty clay with orange mottling, little cinders, trace coarse to fine sand, medium stiff, low plasticity, moist.				P					
196	5	FILL: medium dark Gray, cinders, brick, wood chips, slight coal tar odor, loose, moist.				U				0.1	
195	6			MC	2	S		2.3/4		1.3	
194	7					H				1.6	
193	8	at 8 - 8.6', fine gravel, some coarse to fine sand, moist to wet.				P					
192	9					U				0	
191	10	greenish Gray silty CLAY (CL), little orange mottling, trace coarse to fine sand, very soft, low plasticity, moist.		MC	3	S		4/4	<0.25		
190	11	greenish Gray to moderate yellowish Brown silty CLAY (CL) with gray mottling, hard				H			4.5+	0	
	12	EOB @ 12'									
	13										

Depth to water while drilling ▽
Depth to water after drilling ▼

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF05A
Coordinates: N 5775.347 E 5294.544		Ground Elevation: 201.28	Page: 1 of 1
Total Depth (feet): 7	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04 To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT									
		FILL: coarse aggregate (CA6), loose, dry to moist.				P					
	1									0	
200						U					
	2			MC	1			4/4			
199						S					
	3									0	
198		FILL: moderate yellowish Brown medium to fine sand, loose, moist.				H					
	4	FILL: dark yellowish Brown silty clay, some coarse to fine sand, little brick, medium stiff, low plasticity, moist.									
197						P					
	5					U			0.5	0	
196				MC	2			1.6/3			
	6					S					
195		FILL: dark yellowish orange medium sand, dense, wet to moist.				H				0	
	7	Refusal at 7' - EOB									
	8										
	9										
	10										
	11										
	12										
	13										

Depth to water while drilling
Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF05B
Coordinates: N 5776.614 E 5294.649		Ground Elevation: 201.26	Page: 1 of 1
Total Depth (feet): 7	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04	To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT									
		FILL: coarse aggregate (CA6), loose, dry to moist.				P					
	1									0	
200						U					
	2			MC	1			4/4		0	
199						S					
	3									0	
198		FILL: moderate yellowish Brown medium to fine sand, loose, moist. dark yellowish Brown fine sand at 3.5 feet bgs.				H					
	4										
197						P					
		FILL: dark yellowish Orange silty coarse to fine sand, loose, moist.								0	
	5					U					
196				MC	2			2/3			
	6					S					
195										0	
						H					
		dark yellowish Orange to pale yellowish Brown, trace black staining									
	7	Refusal at 7' - EOB									
	8										
	9										
	10										
	11										
	12										
	13										

SAMPLING

▽ Depth to water while drilling

▼ Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF05C
Coordinates: N 5779.402 E 5297.139		Ground Elevation: 201.32	Page: 1 of 1
Total Depth (feet): 12	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04	To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
		ASPHALT									
201		FILL: coarse aggregate (CA6), loose, dry to moist.				P					
	1									0	
200						U					
	2			MC	1			4/4		0	
199						S					
	3									0	
198		FILL: moderate yellowish Brown medium to fine sand, dense, moist.				H					
	4										
197						P					
	5									0	
196						U					
	6	FILL: dark yellowish Orange silty sand, trace fine gravel, dense, moist.		MC	2			3/4		0	
195						S					
	7	FILL: dark yellowish Orange, silt and fine gravel, black staining, moist.							3.0	0	
194		greenish Gray silty CLAY (CL) with orange mottling, trace coarse to fine sand, very stiff, low plasticity, moist.				H					
	8										
193						P					
	9								2.0	0	Sample 001 9-10' bgs
192						U					
	10	moderate yellowish Brown, very stiff to very hard		MC	3			3/4	4.5+	0	
191						S					
	11								2.5	0	
190						H					
	12	EOB @ 12'									
	13										

Depth to water while drilling

Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF06A
Coordinates: N 5745.305 E 5246.23		Ground Elevation: 201.06	Page: 1 of 1
Total Depth (feet): 10	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04 To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
		ASPHALT									
		FILL: coarse aggregate (CA6), loose, moist.				P					
200	1					U				0	
199	2			MC	1	S		4/4		0	
198	3	FILL: moderate yellowish Brown medium to fine sand, dense, moist.				H				0	
		FILL: dark Gray, cinders, slag, some coarse to fine sand, loose, moist.									
197	4					P					
196	5					U				5.8	
195	6			MC	2	S		1.4/4			
194	7	FILL: moderate yellowish Brown silty clay, oil sheen on soil, strong coal tar odor, some brick, little to trace coarse to fine sand, trace wood chips, very soft, wet to saturated.				H			<0.25	1.6	
193	8					P					
192	9			MC	3	U		2/2		45.8	
						S					
						H				16.3	
	10	Refusal at 10' - EOB									
	11										
	12										
	13										

SAMPLING

▽ Depth to water while drilling

▼ Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF06B
Coordinates: N 5747.183 E 5247.591		Ground Elevation: 201.22	Page: 1 of 1
Total Depth (feet): 10.2	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04 To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT									
		FILL: coarse aggregate (CA6), loose, moist.				P					
200	1					U				0	
199	2			MC	1	S		4/4			
198	3	FILL: moderate yellowish Brown medium to fine sand, dense, moist.				H				0	
		FILL: pale reddish Brown brick, little silt, little cinders, dense, moist.									
197	4					P					
196	5					U				0	
195	6			MC	2	S		2.3/4		12.0	
194	7					H				2.4	
193	8					P					
		tar odor				U				6.2	
192	9			MC	3	S		1.8/2.2			Sample 001 9 - 10' bgs
	10					H				24.4	
		Refusal at 10.2' - EOB									
	11										
	12										
	13										

SAMPLING

▽ Depth to water while drilling

▼ Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF06C
Coordinates: N 5749.997 E 5249.861		Ground Elevation: 201.28	Page: 1 of 1
Total Depth (feet): 10.5	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04	To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetro-meter (TSF)	PID Reading (PPM)	Remarks
201		ASPHALT									
		FILL: coarse aggregate (CA6), loose, moist to dry.				P					
	1									0	
200						U					
	2			MC	1			4/4			
199						S					
	3									0	
198		FILL: moderate yellowish Brown medium to fine sand, dense, moist.				H					
		FILL: brick, tar coated, little silt, moist to wet.									
	4										
197						P					
	5									15.4	
196						U					
	6			MC	2			1.5/4			
195						S					
	7									66.9	
194						H					
		strong petroleum odor 7.5 - 8' bgs, gray staining									
	8	some tar staining 8' - 9.3' bgs, tar odor									
193						P					
										31.0	
	9					U					
192		tar odor		MC	3			2.5/2.5		26.7	
						S					
	10									75.8	
191						H					
		Refusal at 10.5' - EOB									
	11										
	12										
	13										

SAMPLING

Depth to water while drilling

Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF06D
Coordinates: N 5742.608 E 5238.292		Ground Elevation: 201.01	Page: 1 of 1
Total Depth (feet): 3	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04 To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
		ASPHALT									
		FILL: coarse aggregate (CA6), loose, moist.				P					
200	1					U				0	
				MC	1			3/3			
199	2					S					
						H				0	
	3	Refusal at 3' - EOB									
	4										
	5										
	6										
	7										
	8										
	9										
	10										
	11										
	12										
	13										

Depth to water while drilling

Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF06E
Coordinates: N 5741.036 E 5243.5		Ground Elevation: 201.02	Page: 1 of 1
Total Depth (feet): 10.2	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04 To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
		ASPHALT									
		FILL: coarse aggregate (CA6), loose, moist.									
200	1					P U S H				0	
199	2			MC	1			4/4			
198	3	FILL: moderate yellowish Brown medium to fine sand, dense, moist.								3.8	
197	4	FILL: dark Gray, cinders, brick, some tar odor, some grayish Brown coarse to fine sand, some silt, little silty clay, dense, moist.				P U S H					
196	5									1.8	Sample 001 5-6' bgs
195	6			MC	2			1.4/4		6.5	
194	7									65.2	
193	8	tar odor				P U S H					
192	9			MC	3			1.5/2		249	
191	10	dark Gray to grayish Green. Refusal at 10.2' - EOB								34.2	
	11										
	12										
	13										

SAMPLING

▽ Depth to water while drilling

▼ Depth to water after drilling

Drilling Log

Burns & McDonnell
SINCE 1898

Project Name: Peoples Gas Hawthorne		Project No.: 29168	Boring/Monitoring Well Number: CF07
Coordinates: N 5734.989 E 5255.921		Ground Elevation: 200.93	Page: 1 of 1
Total Depth (feet): 12	Hole Size (inches): 2	Driller (s): Brian McQueen	
Drilling Rig: Truck Mounted GeoProbe		Drilling Company: Cabeno	
Date: 7-28-04 To: 7-28-04	Logged By: Kathi Wotal	Reviewed by: Jason Blazier	Approved by: Scott Letzel

Elevation (feet)	Depth (feet)	Description	Graphic Log	Sample Type	Sample Interval	Blow Counts per 0.5'	N Value	Sample Recovery/Length (feet)	Penetrometer (TSF)	PID Reading (PPM)	Remarks
		ASPHALT									
		FILL: coarse aggregate (CA6), loose, moist to dry.				P					
200	1									0	
						U					
199	2			MC	1			4/4			
						S					
198	3									0	
		FILL: moderate yellowish Brown medium to fine sand, dense, moist.				H					
		FILL: moderate yellowish Brown fine sand, trace black staining, dense, moist to wet.									
197	4										
						P					
196	5									0	
						U					
		FILL: medium dark Gray, fine sand, wood chips, slight tar odor, trace fine gravel, loose, wet.									
195	6			MC	2			2.1/4			
						S					
194	7									0	
						H					
193	8										Sample 001 8-9' bgs
		olive Gray coarse to fine sand, no odor, some fine gravel, wet to saturated.				P					
		moderate yellowish Brown silty CLAY (CL), trace coarse to fine sand, very stiff, low plasticity, moist.							2.0	0	water in liner
192	9					U					
191	10	moist to wet.		MC	3			3.5/4	4.0	15.9	
						S					
190	11								1.25	0	
						H					
189	12	EOB @ 12'									
	13										

Depth to water while drilling
Depth to water after drilling

APPENDIX N
NORTH PORTION POST-REMEDIATION SAMPLE AND CONFIRMATION SAMPLE ANALYTICAL RESULTS
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

DATA VALIDATION MEMORANDUM

BURNS & McDONNELL

Client:	Peoples Gas	Prepared By:	Ivan G. Williamson/ Saba Athif
Site:	Hawthorne Regulator Station		
Project #:	29168	Date:	August 17, 2004/ July 8, 2005
File No.:	I7		
Title:	Data Validation of Soil Samples Collected July 7 and 28, 2004 and June 17 and 30, 2005	Checked By:	Christy Barry
		Date:	August 30, 2004 July 8, 2005

PURPOSE

The purpose of this document is to present the evaluation and validation of soil sample analytical results.

VALIDATION CRITERIA

The evaluation and validation consisted of the following:

- Evaluated holding times and sample preservation.
- Evaluated surrogate recoveries.
- Evaluated laboratory control samples and laboratory control sample duplicates (LCS/LCSD).
- Evaluated method blank analyses.
- Evaluated laboratory matrix spike/matrix spike duplicate (MS/MSD) samples.
- Reviewed laboratory annotations.

SAMPLING EFFORT

Eleven (11) soil samples were collected on July 7 and 28, 2004. Five (5) soil samples were collected on June 17, 2005 and a portion of each of the five samples was composited at the laboratory into sample CF08. The five individual samples and the composite sample were analyzed independently. Two (2) soil samples were collected on June 30, 2005. All samples were collected at the Peoples Gas Hawthorne Regulator Station (Site) in Chicago, Illinois

LABORATORY

The samples were analyzed and validated by STAT Analysis (STAT) located in Chicago, Illinois in accordance with the Illinois Site Remediation Program (SRP) requirements for analytical data reduction and validation.

CONCLUSIONS

Laboratory data have been reviewed and are acceptable for use without qualification. STAT performed laboratory validation and determined that the analytical results were usable. Burns & McDonnell performed further evaluation and validation, determining that the overall quality of the analytical results was good. Sample CF03-002 was reanalyzed twice for TCLP lead. Both results varied widely from the original result. However, in all cases, the lab quality control data was acceptable, therefore no qualification was necessary.

REFERENCES

The following reference documents were used:

(1) Illinois Administrative Code, 2002. Site Remediation Program, Title 35: Environmental Program, Subtitle G: Waste Disposal, Chapter I: Pollution Control Board, Part 740.

(2) United States Environmental Protection Agency (USEPA), 1986. *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods*, EPA Publication No. SW-846, [Third Edition (September 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIIA (April 1998), Draft IVA (January 1998), and Draft IVB (November 2000)].

(3) USEPA, 1999. *Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October.

(4) USEPA, 2004. *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October.

SAMPLE INFORMATION

Table 1 presents the sample numbers and analyses requested. Table 2 lists the methods used to analyze the soil samples.

HOLDING TIME AND SAMPLE PRESERVATION EVALUATION

Table 3 presents the analytical holding times that were used to evaluate and validate the extractions and analyses performed. All sample extractions and analyses were performed within the holding time criteria; therefore, no qualification was necessary. All samples were received at the laboratory with preservation parameters within acceptable criteria; therefore, no qualification was necessary.

SURROGATE RECOVERY EVALUATION

All surrogate recoveries were within the acceptable laboratory limits; therefore, no qualification was necessary.

LABORATORY CONTROL SAMPLE EVALUATION

Laboratory control samples (LCS) and for some samples, laboratory control sample duplicates (LCSD), were analyzed along with the primary sample analyses. All LCS/LCSD, recoveries were within the acceptable limits except for the following:

- LCS recovery for acetone, 2-butanone and carbon disulfide was above the acceptable limit for some samples; however, all associated sample results were non-detect. Therefore, no qualification was necessary.
- LCS recoveries for 2-chlorophenol, 1,4-dichlorobenzene and phenol were marginally below acceptable limits for semivolatile organic compound (SVOC) analyses. All other QC parameters for these analyses were within acceptable ranges; therefore, using professional judgment, no qualifications were made to the associated sample results.

METHOD BLANK ANALYSIS EVALUATION

Method blanks were prepared and analyzed for this sampling event. All method blank results were non-detect or were detected below the practical quantitation limit (PQL); therefore, no qualification was necessary.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE EVALUATION

No field MS/MSD samples were selected and analyzed for this sampling event. However, the laboratory did select and analyze three MS/MSD samples for synthetic precipitate leaching procedure (SPLP) lead and toxicity characteristic leaching procedure (TCLP) lead. The SPLP lead MS/MSD percentage recoveries for sample CF04C-001 and the TCLP lead MS/MSD percentage recoveries for sample WW08-001 were within acceptable limits. The TCLP lead MS/MSD percentage recoveries for sample CF03-002 were above the acceptable limits; however, the primary sample lead result was greater than four times the spike concentrations. Therefore, no qualifications were necessary based on MS/MSD.

LABORATORY ANNOTATION REVIEW

A review of the STAT case narratives indicates that the overall quality of the analytical results is acceptable; therefore, no qualification was necessary.

Sample CF03-002 was reanalyzed twice for TCLP lead. Both results varied widely from the original result. However, in all cases, the lab quality control data was acceptable, therefore no qualification was necessary.

Sample CF08-001 (STAT project number 0506567) is a composite of the following samples: NW08-001, SW08-001, WW08-001, EW08-001 and FLOOR08-001 collected on June 17, 2005 and reported in STAT project number 0506566.

Table 1 List of Sample Numbers and Analyses	
Sample Number	**Analyses**
HAS-SP51B-001	Target Compound List (TCL) Volatile Organic Compounds (VOCs).
HAS-SP51C-001	TCL VOCs.
HAS-CF02-001	TCL VOCs, TCL Semivolatile Organic Compounds (SVOCs), Polynuclear Aromatic Hydrocarbons (PAHs), priority pollutant metals, total cyanide, toxicity characteristic leaching procedure (TCLP) lead and synthetic precipitate leaching procedure (SPLP) lead.
HAS-CF03-001	TCL VOCs, TCL SVOCs, PAHs, priority pollutant metals and total cyanide.
HAS-CF03-002	TCL VOCs, TCL SVOCs, PAHs, priority pollutant metals, total cyanide, TCLP lead and SPLP lead.
HAS-CF04C-001	TCL VOCs, TCL SVOCs, PAHs, priority pollutant metals, total cyanide, TCLP lead and SPLP lead.
HAS-CF04D-001	TCL VOCs, TCL SVOCs, PAHs, priority pollutant metals, total cyanide.
HAS-CF05C-001	TCL VOCs, TCL SVOCs, PAHs, priority pollutant metals, total cyanide.
HAS-CF06B-001	TCL VOCs, TCL SVOCs, PAHs, priority pollutant metals, total cyanide.
HAS-CF06E-001	TCL VOCs, TCL SVOCs, PAHs, priority pollutant metals, total cyanide, TCLP lead and SPLP lead.
HAS-CF07-001	TCL VOCs, TCL SVOCs, PAHs, priority pollutant metals, total cyanide.
HAS-NW08-001	Lead and TCLP lead.
HAS-SW08-001	Lead and TCLP lead.
HAS-WW08-001	Lead and TCLP lead.
HAS-EW08-001	Lead and TCLP lead.
HAS-FLOOR08-001	Lead and TCLP lead.
HAS-CF08-001	Lead and TCLP lead.
HAS-NW08-002	Lead and TCLP lead.
HAS-EW08-002	Lead and TCLP lead.

Table 2 Analytical Methods	
Parameter	**Analytical Method[1]**
TCL VOCs[2]	8260B
TCL SVOCs and PAHs	8270C / 8270C SIM
Priority pollutant metals	6020
Mercury	7471A
Total cyanide	9012A
TCLP Lead	1311 extraction/6020
SPLP Lead	1312 extraction/6020

Notes:
(1) USEPA 1986.
(2) Sampled using USEPA Method 5035.

Table 3 Soil Analytical Holding Times	
Analyses	**Holding Time From Sample Collection[1]**
TCL VOCs	14 days
TCL SVOCs and PAHs	14 days to extraction; 40 days from extraction to analysis
Priority pollutant metals	6 months
Mercury	28 days
Total cyanide	14 days
TCLP Lead and SPLP Lead	180 days to extraction; 180 days from extraction to analysis

Note:
(1) USEPA 1986.

ANALYTICAL RESULTS

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

July 20, 2004

Joan Gonzalez
Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0407044

Dear Joan Gonzalez:

STAT Analysis received 2 samples for the referenced project on 7/7/2004. The analytical results are presented in the following report.

This report is revised to reflect changes made after the initial report was issued.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: July 20, 2004

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0407044

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0407044-001A	HAS-SP51B-001	7'-7.5'	7/7/2004 8:45:00 AM	7/7/2004
0407044-001B	HAS-SP51B-001	7'-7.5'	7/7/2004 8:45:00 AM	7/7/2004
0407044-002A	HAS-SP51C-001	7'-7.5'	7/7/2004 9:00:00 AM	7/7/2004
0407044-002B	HAS-SP51C-001	7'-7.5'	7/7/2004 9:00:00 AM	7/7/2004

STAT Analysis Corporation

Date: *July 20, 2004*

CLIENT:	Burns & McDonnell
Project:	29168, Peoples Gas-Hawthorne Regulator Statio
Lab Order:	0407044

CASE NARRATIVE

In VOC soil LCS analyzed 07/08/04, Acetone has high recovery (172% recovery, QC Limits 50-150%) and bromomethane has low recovery in LCS/LCSD (54%/62% recovery, QC Limits 70-130%).

In VOC soil LCS analyzed 07/08/04, Acetone has high recovery (187% recovery, QC Limits 50-150%) and bromomethane has low recovery (50% recovery, QC Limits 70-130%).

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: July 20, 2004
Print Date: July 20, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-SP51B-001
Lab Order:	0407044	**Tag Number:**	7'-7.5'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/7/2004 8:45:00 AM
Lab ID:	0407044-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/7/2004**		Analyst: **MP**
Acetone	ND	2.6		mg/Kg-dry	100	7/8/2004
Benzene	2	0.52		mg/Kg-dry	100	7/8/2004
Bromodichloromethane	ND	0.52		mg/Kg-dry	100	7/8/2004
Bromoform	ND	0.52		mg/Kg-dry	100	7/8/2004
Bromomethane	ND	1		mg/Kg-dry	100	7/8/2004
2-Butanone	ND	1		mg/Kg-dry	100	7/8/2004
Carbon disulfide	ND	0.52		mg/Kg-dry	100	7/8/2004
Carbon tetrachloride	ND	0.52		mg/Kg-dry	100	7/8/2004
Chlorobenzene	ND	0.52		mg/Kg-dry	100	7/8/2004
Chloroethane	ND	1		mg/Kg-dry	100	7/8/2004
Chloroform	ND	0.52		mg/Kg-dry	100	7/8/2004
Chloromethane	ND	1		mg/Kg-dry	100	7/8/2004
Dibromochloromethane	ND	0.52		mg/Kg-dry	100	7/8/2004
1,1-Dichloroethane	ND	0.52		mg/Kg-dry	100	7/8/2004
1,2-Dichloroethane	ND	0.52		mg/Kg-dry	100	7/8/2004
1,1-Dichloroethene	ND	0.52		mg/Kg-dry	100	7/8/2004
cis-1,2-Dichloroethene	ND	0.52		mg/Kg-dry	100	7/8/2004
trans-1,2-Dichloroethene	ND	0.52		mg/Kg-dry	100	7/8/2004
1,2-Dichloropropane	ND	0.52		mg/Kg-dry	100	7/8/2004
cis-1,3-Dichloropropene	ND	0.52		mg/Kg-dry	100	7/8/2004
trans-1,3-Dichloropropene	ND	0.52		mg/Kg-dry	100	7/8/2004
Ethylbenzene	26	0.52		mg/Kg-dry	100	7/8/2004
2-Hexanone	ND	1		mg/Kg-dry	100	7/8/2004
4-Methyl-2-pentanone	ND	1		mg/Kg-dry	100	7/8/2004
Methylene chloride	ND	1		mg/Kg-dry	100	7/8/2004
Methyl tert-butyl ether	ND	0.52		mg/Kg-dry	100	7/8/2004
Styrene	ND	0.52		mg/Kg-dry	100	7/8/2004
1,1,2,2-Tetrachloroethane	ND	0.52		mg/Kg-dry	100	7/8/2004
Tetrachloroethene	ND	0.52		mg/Kg-dry	100	7/8/2004
Toluene	ND	0.52		mg/Kg-dry	100	7/8/2004
1,1,1-Trichloroethane	ND	0.52		mg/Kg-dry	100	7/8/2004
1,1,2-Trichloroethane	ND	0.52		mg/Kg-dry	100	7/8/2004
Trichloroethene	ND	0.52		mg/Kg-dry	100	7/8/2004
Vinyl chloride	ND	0.52		mg/Kg-dry	100	7/8/2004
Xylenes, Total	73	1		mg/Kg-dry	100	7/8/2004
m,p-Xylene	60	0.52		mg/Kg-dry	100	7/8/2004
o-Xylene	13	0.52		mg/Kg-dry	100	7/8/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: July 20, 2004
Print Date: July 20, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-SP51B-001
Lab Order:	0407044	**Tag Number:**	7'-7.5'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/7/2004 8:45:00 AM
Lab ID:	0407044-001B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Percent Moisture	**D2974**			Prep Date: **7/7/2004**		Analyst: **RW**
Percent Moisture	19.65	0.01	*	wt%	1	7/8/2004

Qualifiers:
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Report Date: July 20, 2004
Print Date: July 20, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-SP51C-001
Lab Order:	0407044	**Tag Number:**	7'-7.5'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/7/2004 9:00:00 AM
Lab ID:	0407044-002A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/7/2004**		Analyst: **PS**
Acetone	ND	2.3		mg/Kg-dry	50	7/8/2004
Benzene	0.92	0.46		mg/Kg-dry	50	7/8/2004
Bromodichloromethane	ND	0.46		mg/Kg-dry	50	7/8/2004
Bromoform	ND	0.46		mg/Kg-dry	50	7/8/2004
Bromomethane	ND	0.92		mg/Kg-dry	50	7/8/2004
2-Butanone	ND	0.92		mg/Kg-dry	50	7/8/2004
Carbon disulfide	1.9	0.46		mg/Kg-dry	50	7/8/2004
Carbon tetrachloride	ND	0.46		mg/Kg-dry	50	7/8/2004
Chlorobenzene	ND	0.46		mg/Kg-dry	50	7/8/2004
Chloroethane	ND	0.92		mg/Kg-dry	50	7/8/2004
Chloroform	ND	0.46		mg/Kg-dry	50	7/8/2004
Chloromethane	ND	0.92		mg/Kg-dry	50	7/8/2004
Dibromochloromethane	ND	0.46		mg/Kg-dry	50	7/8/2004
1,1-Dichloroethane	ND	0.46		mg/Kg-dry	50	7/8/2004
1,2-Dichloroethane	ND	0.46		mg/Kg-dry	50	7/8/2004
1,1-Dichloroethene	ND	0.46		mg/Kg-dry	50	7/8/2004
cis-1,2-Dichloroethene	ND	0.46		mg/Kg-dry	50	7/8/2004
trans-1,2-Dichloroethene	ND	0.46		mg/Kg-dry	50	7/8/2004
1,2-Dichloropropane	ND	0.46		mg/Kg-dry	50	7/8/2004
cis-1,3-Dichloropropene	ND	0.46		mg/Kg-dry	50	7/8/2004
trans-1,3-Dichloropropene	ND	0.46		mg/Kg-dry	50	7/8/2004
Ethylbenzene	450	9.2		mg/Kg-dry	1000	7/8/2004
2-Hexanone	ND	0.92		mg/Kg-dry	50	7/8/2004
4-Methyl-2-pentanone	ND	0.92		mg/Kg-dry	50	7/8/2004
Methylene chloride	ND	0.92		mg/Kg-dry	50	7/8/2004
Methyl tert-butyl ether	ND	0.46		mg/Kg-dry	50	7/8/2004
Styrene	ND	0.46		mg/Kg-dry	50	7/8/2004
1,1,2,2-Tetrachloroethane	ND	0.46		mg/Kg-dry	50	7/8/2004
Tetrachloroethene	ND	0.46		mg/Kg-dry	50	7/8/2004
Toluene	1.7	0.46		mg/Kg-dry	50	7/8/2004
1,1,1-Trichloroethane	ND	0.46		mg/Kg-dry	50	7/8/2004
1,1,2-Trichloroethane	ND	0.46		mg/Kg-dry	50	7/8/2004
Trichloroethene	ND	0.46		mg/Kg-dry	50	7/8/2004
Vinyl chloride	ND	0.46		mg/Kg-dry	50	7/8/2004
Xylenes, Total	980	18		mg/Kg-dry	1000	7/8/2004
m,p-Xylene	920	9.2		mg/Kg-dry	1000	7/8/2004
o-Xylene	63	9.2		mg/Kg-dry	1000	7/8/2004

Qualifiers:
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Report Date: July 20, 2004
Print Date: July 20, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-SP51C-001
Lab Order:	0407044	**Tag Number:**	7'-7.5'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/7/2004 9:00:00 AM
Lab ID:	0407044-002B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Percent Moisture	**D2974**			Prep Date: **7/7/2004**		Analyst: **RW**
Percent Moisture	29.29	0.01	*	wt%	1	7/8/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

24-HR TAT!

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: (312) 733-0551

Document Control No: [illegible]
Lab. Reference No. or Episode No.: 0407044

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: TCL VOCs	Parameter/Method Code: Moisture Content	Remarks
HAS	SP51B-001		—	—	7	7.5	7/7/04	0845		X		4	X	X	001
HAS	SP51C-001		—	—	7	7.5	7/7/04	0900		X		4	X	X	002

PLEASE FIND 1 COOLER

7/7/04

Sampler (signature): [signature]

Sampler (signature):

Custody Seal Number: 070704 STAT-001; 070704 STAT-002

Special Instructions: 24-HR TAT!

Relinquished By (signature): 1. [signature] Date/Time: 7/7/04 1100

Received By (signature): [signature] Date/Time: 7/7/04 12:00

Relinquished By (signature): 2. Date/Time:

Received By (signature): Date/Time:

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt: 3

Laboratory Comments:

061301 Form WCD-KC1-CHI

STAT Analysis Corporation

Sample Receipt Checklist

Date and Time Received: 07/07/2004

Client Name B&M

Received by CDF

Work Order Numbe 0407044

Reviewed by CO (Initials) 7/7/04 (Date)

Checklist completed b (Signature) 7/7/04 (Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☐	No ☐	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

STAT Analysis Corporation

Date: 13-Jul-04

CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW5035/8260B **Matrix:** S

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	BR4FBZ	BZMED8	DBFM	DCA12D4				
VBLK070804-2	109	97.2	106	93.2				
VLCS070804-2	106	98.8	107	97.0				
VLCSD070804-2	104	97.4	103	91.2				
0407044-001A:100	96.4	101	105	96.0				
0407044-002A:1000	103	99.6	106	94.9				
VBLK070804-3	94.7	99.3	98.1	100				
VLCS070804-3	99.2	98.0	99.0	101				
0407027-006AMS	83.9	96.7	94.6	90.5				
0407027-006AMSD	93.8	98.4	96.5	93.5				
0407044-002A:50	103	108	91.4	103				

Acronym		Surrogate	QC Limits
BR4FBZ	=	4-Bromofluorobenzene	63-110
BZMED8	=	Toluene-d8	85-110
DBFM	=	Dibromofluoromethane	83-119
DCA12D4	=	1,2-Dichloroethane-d4	84-129

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

Date: *July 13, 2004*

CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9948

Sample ID **0407027-006AMS** SampType: **MS** TestCode: **VOC_ENCOR** Units: **mg/Kg-dry** Prep Date: **7/2/2004** Run ID: **VOA-3_040708A**
Client ID: **ZZZZZ** Batch ID: **9948** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **254077**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.06629	0.0063	0.06278	0	106	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.04935	0.0063	0.06278	0	78.6	70	130	0	0		
1,1,2-Trichloroethane	0.06189	0.0063	0.06278	0	98.6	70	130	0	0		
1,1-Dichloroethane	0.06576	0.0063	0.06278	0	105	70	130	0	0		
1,1-Dichloroethene	0.06257	0.0063	0.06278	0	99.7	50	234	0	0		
1,2-Dichloroethane	0.05693	0.0063	0.06278	0	90.7	70	130	0	0		
1,2-Dichloropropane	0.06214	0.0063	0.06278	0	99	70	130	0	0		
2-Butanone	0.04724	0.013	0.06278	0	75.2	70	130	0	0		
2-Hexanone	0.05628	0.013	0.06278	0	89.6	70	130	0	0		
4-Methyl-2-pentanone	0.05151	0.013	0.06278	0	82	70	130	0	0		
Acetone	0.4153	0.031	0.06278	0	661	70	130	0	0		SE
Benzene	0.06329	0.0063	0.06278	0	101	37	151	0	0		
Bromodichloromethane	0.05011	0.0063	0.06278	0	79.8	70	130	0	0		
Bromoform	0.03881	0.0063	0.06278	0	61.8	70	130	0	0		S
Bromomethane	0.0352	0.013	0.06278	0	56.1	70	130	0	0		S
Carbon disulfide	0.06304	0.0063	0.06278	0	100	70	130	0	0		
Carbon tetrachloride	0.05511	0.0063	0.06278	0	87.8	70	130	0	0		
Chlorobenzene	0.05585	0.0063	0.06278	0	89	37	160	0	0		
Chloroethane	0.06059	0.013	0.06278	0	96.5	70	130	0	0		
Chloroform	0.06178	0.0063	0.06278	0	98.4	70	130	0	0		
Chloromethane	0.05561	0.013	0.06278	0	88.6	70	130	0	0		
cis-1,2-Dichloroethene	0.05804	0.0063	0.06278	0	92.4	70	130	0	0		
cis-1,3-Dichloropropene	0.049	0.0063	0.06278	0	78	70	130	0	0		
Dibromochloromethane	0.04798	0.0063	0.06278	0	76.4	70	130	0	0		
Ethylbenzene	0.06419	0.0063	0.06278	0.0008623	101	70	130	0	0		
Methyl tert-butyl ether	0.05823	0.0063	0.06278	0	92.7	50	150	0	0		
Methylene chloride	0.05678	0.013	0.06278	0.005441	81.8	70	130	0	0		
Styrene	0.04819	0.0063	0.06278	0	76.8	70	130	0	0		
Tetrachloroethene	0.06894	0.0063	0.06278	0	110	70	130	0	0		
Toluene	0.05821	0.0063	0.06278	0	92.7	47	150	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9948

Sample ID **0407027-006AMS** SampType: **MS** TestCode: **VOC_ENCOR** Units: **mg/Kg-dry** Prep Date: **7/2/2004** Run ID: **VOA-3_040708A**
Client ID: **ZZZZZ** Batch ID: **9948** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **254077**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	0.06349	0.0063	0.06278	0	101	70	130	0	0		
trans-1,3-Dichloropropene	0.05761	0.0063	0.06278	0	91.8	70	130	0	0		
Trichloroethene	0.06002	0.0063	0.06278	0	95.6	71	157	0	0		
Vinyl chloride	0.06766	0.0063	0.06278	0	108	70	130	0	0		
Xylenes, Total	0.1763	0.013	0.1884	0	93.6	70	130	0	0		

Sample ID **0407027-006AMSD** SampType: **MSD** TestCode: **VOC_ENCOR** Units: **mg/Kg-dry** Prep Date: **7/2/2004** Run ID: **VOA-3_040708A**
Client ID: **ZZZZZ** Batch ID: **9948** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **254078**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.06991	0.0065	0.06503	0	108	70	130	0.06629	5.32	25	
1,1,2,2-Tetrachloroethane	0.05857	0.0065	0.06503	0	90.1	70	130	0.04935	17.1	25	
1,1,2-Trichloroethane	0.07657	0.0065	0.06503	0	118	70	130	0.06189	21.2	25	
1,1-Dichloroethane	0.06945	0.0065	0.06503	0	107	70	130	0.06576	5.46	25	
1,1-Dichloroethene	0.0652	0.0065	0.06503	0	100	50	234	0.06257	4.12	25	
1,2-Dichloroethane	0.06062	0.0065	0.06503	0	93.2	70	130	0.05693	6.28	25	
1,2-Dichloropropane	0.06671	0.0065	0.06503	0	103	70	130	0.06214	7.09	25	
2-Butanone	0.04262	0.013	0.06503	0	65.5	70	130	0.04724	10.3	25	S
2-Hexanone	0.06771	0.013	0.06503	0	104	70	130	0.05628	18.4	25	
4-Methyl-2-pentanone	0.05333	0.013	0.06503	0	82	70	130	0.05151	3.47	25	
Acetone	0.4675	0.033	0.06503	0	719	70	130	0.4153	11.8	25	SE
Benzene	0.06732	0.0065	0.06503	0	104	37	151	0.06329	6.18	25	
Bromodichloromethane	0.05482	0.0065	0.06503	0	84.3	70	130	0.05011	8.97	25	
Bromoform	0.05153	0.0065	0.06503	0	79.2	70	130	0.03881	28.2	25	R
Bromomethane	0.03823	0.013	0.06503	0	58.8	70	130	0.0352	8.25	25	S
Carbon disulfide	0.06287	0.0065	0.06503	0	96.7	70	130	0.06304	0.260	25	
Carbon tetrachloride	0.06281	0.0065	0.06503	0	96.6	70	130	0.05511	13.1	25	
Chlorobenzene	0.05794	0.0065	0.06503	0	89.1	37	160	0.05585	3.67	25	
Chloroethane	0.06227	0.013	0.06503	0	95.8	70	130	0.06059	2.75	25	
Chloroform	0.06573	0.0065	0.06503	0	101	70	130	0.06178	6.20	25	
Chloromethane	0.05812	0.013	0.06503	0	89.4	70	130	0.05561	4.41	25	

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B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 9948

Sample ID **0407027-006AMSD** SampType: **MSD** TestCode: **VOC_ENCOR** Units: **mg/Kg-dry** Prep Date: **7/2/2004** Run ID: **VOA-3_040708A**
Client ID: **ZZZZZ** Batch ID: **9948** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **254078**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	0.06104	0.0065	0.06503	0	93.9	70	130	0.05804	5.04	25	
cis-1,3-Dichloropropene	0.0526	0.0065	0.06503	0	80.9	70	130	0.049	7.09	25	
Dibromochloromethane	0.05998	0.0065	0.06503	0	92.2	70	130	0.04798	22.2	25	
Ethylbenzene	0.06893	0.0065	0.06503	0.0008623	105	70	130	0.06419	7.12	25	
Methyl tert-butyl ether	0.06013	0.0065	0.06503	0	92.5	50	150	0.05823	3.21	0	
Methylene chloride	0.06214	0.013	0.06503	0.005441	87.2	70	130	0.05678	9.02	25	
Styrene	0.05573	0.0065	0.06503	0	85.7	70	130	0.04819	14.5	25	
Tetrachloroethene	0.08226	0.0065	0.06503	0	127	70	130	0.06894	17.6	25	
Toluene	0.06073	0.0065	0.06503	0	93.4	47	150	0.05821	4.22	25	
trans-1,2-Dichloroethene	0.06448	0.0065	0.06503	0	99.2	70	130	0.06349	1.56	25	
trans-1,3-Dichloropropene	0.06658	0.0065	0.06503	0	102	70	130	0.05761	14.4	25	
Trichloroethene	0.06227	0.0065	0.06503	0	95.8	71	157	0.06002	3.68	25	
Vinyl chloride	0.06935	0.0065	0.06503	0	107	70	130	0.06766	2.47	25	
Xylenes, Total	0.1997	0.013	0.1951	0	102	70	130	0.1763	12.4	25	

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CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13338

Sample ID **VBLK070804-2** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040708A**
Client ID: **ZZZZZ** Batch ID: **R13338** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0050									
1,1,2,2-Tetrachloroethane	ND	0.0050									
1,1,2-Trichloroethane	ND	0.0050									
1,1-Dichloroethane	ND	0.0050									
1,1-Dichloroethene	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
1,2-Dichloropropane	ND	0.0050									
2-Butanone	ND	0.010									
2-Hexanone	ND	0.010									
4-Methyl-2-pentanone	ND	0.010									
Acetone	ND	0.025									
Benzene	ND	0.0050									
Bromodichloromethane	ND	0.0050									
Bromoform	ND	0.0050									
Bromomethane	ND	0.010									
Carbon disulfide	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroethane	ND	0.010									
Chloroform	ND	0.0050									
Chloromethane	ND	0.010									
cis-1,2-Dichloroethene	ND	0.0050									
cis-1,3-Dichloropropene	ND	0.0050									
Dibromochloromethane	ND	0.0050									
Ethylbenzene	ND	0.0050									
Methyl tert-butyl ether	ND	0.0050									
Methylene chloride	0.00201	0.010									J
Styrene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	ND	0.0050									
trans-1,2-Dichloroethene	ND	0.0050									

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CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13338

Sample ID **VBLK070804-2** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040708A**
Client ID: **ZZZZZ** Batch ID: **R13338** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									
Xylenes, Total	ND	0.010									

Sample ID **VLCS070804-2** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040708A**
Client ID: **ZZZZZ** Batch ID: **R13338** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253934**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05141	0.0050	0.05	0	103	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.04374	0.0050	0.05	0	87.5	70	130	0	0		
1,1,2-Trichloroethane	0.04438	0.0050	0.05	0	88.8	70	130	0	0		
1,1-Dichloroethane	0.0506	0.0050	0.05	0	101	70	130	0	0		
1,1-Dichloroethene	0.04977	0.0050	0.05	0	99.5	70	130	0	0		
1,2-Dichloroethane	0.04892	0.0050	0.05	0	97.8	70	130	0	0		
1,2-Dichloropropane	0.04812	0.0050	0.05	0	96.2	70	130	0	0		
2-Butanone	0.05766	0.010	0.05	0	115	70	130	0	0		
2-Hexanone	0.05109	0.010	0.05	0	102	70	130	0	0		
4-Methyl-2-pentanone	0.04689	0.010	0.05	0	93.8	70	130	0	0		
Acetone	0.08589	0.025	0.05	0	172	50	150	0	0		S
Benzene	0.04929	0.0050	0.05	0	98.6	70	130	0	0		
Bromodichloromethane	0.04301	0.0050	0.05	0	86	70	130	0	0		
Bromoform	0.04355	0.0050	0.05	0	87.1	70	130	0	0		
Bromomethane	0.02706	0.010	0.05	0	54.1	70	130	0	0		S
Carbon disulfide	0.05831	0.0050	0.05	0	117	70	130	0	0		
Carbon tetrachloride	0.05203	0.0050	0.05	0	104	70	130	0	0		
Chlorobenzene	0.0501	0.0050	0.05	0	100	70	130	0	0		
Chloroethane	0.05101	0.010	0.05	0	102	70	130	0	0		
Chloroform	0.05009	0.0050	0.05	0	100	70	130	0	0		
Chloromethane	0.04005	0.010	0.05	0	80.1	70	130	0	0		
cis-1,2-Dichloroethene	0.04798	0.0050	0.05	0	96	70	130	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13338

Sample ID **VLCS070804-2** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040708A**
Client ID: **ZZZZZ** Batch ID: **R13338** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253934**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	0.04705	0.0050	0.05	0	94.1	70	130	0	0		
Dibromochloromethane	0.04422	0.0050	0.05	0	88.4	70	130	0	0		
Ethylbenzene	0.05036	0.0050	0.05	0	101	70	130	0	0		
Methyl tert-butyl ether	0.04759	0.0050	0.05	0	95.2	50	150	0	0		
Methylene chloride	0.04629	0.010	0.05	0.00201	88.6	70	130	0	0		
Styrene	0.04912	0.0050	0.05	0	98.2	70	130	0	0		
Tetrachloroethene	0.05551	0.0050	0.05	0	111	70	130	0	0		
Toluene	0.0511	0.0050	0.05	0	102	70	130	0	0		
trans-1,2-Dichloroethene	0.05073	0.0050	0.05	0	101	70	130	0	0		
trans-1,3-Dichloropropene	0.05101	0.0050	0.05	0	102	70	130	0	0		
Trichloroethene	0.05146	0.0050	0.05	0	103	70	130	0	0		
Vinyl chloride	0.05056	0.0050	0.05	0	101	70	130	0	0		
Xylenes, Total	0.1528	0.010	0.15	0	102	70	130	0	0		

Sample ID **VLCSD070804-2** SampType: **LCSD** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040708A**
Client ID: **ZZZZZ** Batch ID: **R13338** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253935**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05385	0.0050	0.05	0	108	70	130	0.05141	4.64	20	
1,1,2,2-Tetrachloroethane	0.04202	0.0050	0.05	0	84	70	130	0.04374	4.01	20	
1,1,2-Trichloroethane	0.04607	0.0050	0.05	0	92.1	70	130	0.04438	3.74	20	
1,1-Dichloroethane	0.05182	0.0050	0.05	0	104	70	130	0.0506	2.38	20	
1,1-Dichloroethene	0.04913	0.0050	0.05	0	98.3	70	130	0.04977	1.29	20	
1,2-Dichloroethane	0.04853	0.0050	0.05	0	97.1	70	130	0.04892	0.800	20	
1,2-Dichloropropane	0.04929	0.0050	0.05	0	98.6	70	130	0.04812	2.40	20	
2-Butanone	0.04762	0.010	0.05	0	95.2	70	130	0.05766	19.1	20	
2-Hexanone	0.04735	0.010	0.05	0	94.7	70	130	0.05109	7.60	20	
4-Methyl-2-pentanone	0.04295	0.010	0.05	0	85.9	70	130	0.04689	8.77	20	
Acetone	0.07157	0.025	0.05	0	143	50	150	0.08589	18.2	20	
Benzene	0.05106	0.0050	0.05	0	102	70	130	0.04929	3.53	20	
Bromodichloromethane	0.04456	0.0050	0.05	0	89.1	70	130	0.04301	3.54	20	

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CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13338

Sample ID **VLCSD070804-2** SampType: **LCSD** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040708A**
Client ID: **ZZZZZ** Batch ID: **R13338** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253935**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.04211	0.0050	0.05	0	84.2	70	130	0.04355	3.36	20	
Bromomethane	0.03078	0.010	0.05	0	61.6	70	130	0.02706	12.9	20	S
Carbon disulfide	0.06303	0.0050	0.05	0	126	70	130	0.05831	7.78	20	
Carbon tetrachloride	0.05285	0.0050	0.05	0	106	70	130	0.05203	1.56	20	
Chlorobenzene	0.05192	0.0050	0.05	0	104	70	130	0.0501	3.57	20	
Chloroethane	0.05053	0.010	0.05	0	101	70	130	0.05101	0.945	20	
Chloroform	0.0514	0.0050	0.05	0	103	70	130	0.05009	2.58	20	
Chloromethane	0.04263	0.010	0.05	0	85.3	70	130	0.04005	6.24	20	
cis-1,2-Dichloroethene	0.04927	0.0050	0.05	0	98.5	70	130	0.04798	2.65	20	
cis-1,3-Dichloropropene	0.04879	0.0050	0.05	0	97.6	70	130	0.04705	3.63	20	
Dibromochloromethane	0.04562	0.0050	0.05	0	91.2	70	130	0.04422	3.12	20	
Ethylbenzene	0.05294	0.0050	0.05	0	106	70	130	0.05036	5.00	20	
Methyl tert-butyl ether	0.04778	0.0050	0.05	0	95.6	50	150	0.04759	0.398	20	
Methylene chloride	0.04778	0.010	0.05	0.00201	91.5	70	130	0.04629	3.17	20	
Styrene	0.05004	0.0050	0.05	0	100	70	130	0.04912	1.86	20	
Tetrachloroethene	0.05722	0.0050	0.05	0	114	70	130	0.05551	3.03	20	
Toluene	0.05285	0.0050	0.05	0	106	70	130	0.0511	3.37	20	
trans-1,2-Dichloroethene	0.05149	0.0050	0.05	0	103	70	130	0.05073	1.49	20	
trans-1,3-Dichloropropene	0.05038	0.0050	0.05	0	101	70	130	0.05101	1.24	20	
Trichloroethene	0.05447	0.0050	0.05	0	109	70	130	0.05146	5.68	20	
Vinyl chloride	0.05255	0.0050	0.05	0	105	70	130	0.05056	3.86	20	
Xylenes, Total	0.1582	0.010	0.15	0	106	70	130	0.1528	3.50	20	

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CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13344

Sample ID **VBLK070804-3** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-3_040708A**
Client ID: **ZZZZZ** Batch ID: **R13344** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253972**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0050									
1,1,2,2-Tetrachloroethane	ND	0.0050									
1,1,2-Trichloroethane	ND	0.0050									
1,1-Dichloroethane	ND	0.0050									
1,1-Dichloroethene	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
1,2-Dichloropropane	ND	0.0050									
2-Butanone	ND	0.010									
2-Hexanone	ND	0.010									
4-Methyl-2-pentanone	ND	0.010									
Acetone	ND	0.025									
Benzene	ND	0.0050									
Bromodichloromethane	ND	0.0050									
Bromoform	ND	0.0050									
Bromomethane	ND	0.010									
Carbon disulfide	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroethane	ND	0.010									
Chloroform	ND	0.0050									
Chloromethane	ND	0.010									
cis-1,2-Dichloroethene	ND	0.0050									
cis-1,3-Dichloropropene	ND	0.0050									
Dibromochloromethane	ND	0.0050									
Ethylbenzene	0.00116	0.0050									J
Methyl tert-butyl ether	ND	0.0050									
Methylene chloride	0.00246	0.010									J
Styrene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	ND	0.0050									
trans-1,2-Dichloroethene	ND	0.0050									

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CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13344

Sample ID **VBLK070804-3** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-3_040708A**
Client ID: **ZZZZZ** Batch ID: **R13344** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253972**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									
Xylenes, Total	ND	0.010									

Sample ID **VLCS070804-3** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-3_040708A**
Client ID: **ZZZZZ** Batch ID: **R13344** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253973**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05047	0.0050	0.05	0	101	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.04685	0.0050	0.05	0	93.7	70	130	0	0		
1,1,2-Trichloroethane	0.04809	0.0050	0.05	0	96.2	70	130	0	0		
1,1-Dichloroethane	0.05143	0.0050	0.05	0	103	70	130	0	0		
1,1-Dichloroethene	0.05257	0.0050	0.05	0	105	70	130	0	0		
1,2-Dichloroethane	0.05221	0.0050	0.05	0	104	70	130	0	0		
1,2-Dichloropropane	0.05044	0.0050	0.05	0	101	70	130	0	0		
2-Butanone	0.06429	0.010	0.05	0	129	70	130	0	0		
2-Hexanone	0.06058	0.010	0.05	0	121	70	130	0	0		
4-Methyl-2-pentanone	0.057	0.010	0.05	0	114	70	130	0	0		
Acetone	0.09345	0.025	0.05	0	187	50	150	0	0		S
Benzene	0.04755	0.0050	0.05	0	95.1	70	130	0	0		
Bromodichloromethane	0.04144	0.0050	0.05	0	82.9	70	130	0	0		
Bromoform	0.03569	0.0050	0.05	0	71.4	70	130	0	0		
Bromomethane	0.02516	0.010	0.05	0	50.3	70	130	0	0		S
Carbon disulfide	0.06011	0.0050	0.05	0	120	70	130	0	0		
Carbon tetrachloride	0.04334	0.0050	0.05	0	86.7	70	130	0	0		
Chlorobenzene	0.04506	0.0050	0.05	0	90.1	70	130	0	0		
Chloroethane	0.0473	0.010	0.05	0	94.6	70	130	0	0		
Chloroform	0.04936	0.0050	0.05	0	98.7	70	130	0	0		
Chloromethane	0.04223	0.010	0.05	0	84.5	70	130	0	0		
cis-1,2-Dichloroethene	0.04496	0.0050	0.05	0	89.9	70	130	0	0		

Qualifiers:
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* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13344

Sample ID **VLCS070804-3** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-3_040708A**
Client ID: **ZZZZZ** Batch ID: **R13344** TestNo: **SW5035/8260** Analysis Date: **7/8/2004** SeqNo: **253973**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	0.04527	0.0050	0.05	0	90.5	70	130	0	0		
Dibromochloromethane	0.039	0.0050	0.05	0	78	70	130	0	0		
Ethylbenzene	0.04891	0.0050	0.05	0.00116	95.5	70	130	0	0		
Methyl tert-butyl ether	0.05707	0.0050	0.05	0	114	50	150	0	0		
Methylene chloride	0.05229	0.010	0.05	0.00246	99.7	70	130	0	0		
Styrene	0.04356	0.0050	0.05	0	87.1	70	130	0	0		
Tetrachloroethene	0.04918	0.0050	0.05	0	98.4	70	130	0	0		
Toluene	0.04565	0.0050	0.05	0	91.3	70	130	0	0		
trans-1,2-Dichloroethene	0.05545	0.0050	0.05	0	111	70	130	0	0		
trans-1,3-Dichloropropene	0.0484	0.0050	0.05	0	96.8	70	130	0	0		
Trichloroethene	0.04729	0.0050	0.05	0	94.6	70	130	0	0		
Vinyl chloride	0.05244	0.0050	0.05	0	105	70	130	0	0		
Xylenes, Total	0.1338	0.010	0.15	0	89.2	70	130	0	0		

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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0407044
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13331

Sample ID **MBLK** SampType: **MBLK** TestCode: **PMOIST** Units: **wt%** Prep Date: **7/7/2004** Run ID: **BALANCE_040707A**
Client ID: **ZZZZZ** Batch ID: **R13331** TestNo: **D2974** Analysis Date: **7/8/2004** SeqNo: **253658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	ND	0.01000									*

Sample ID **LCS-S** SampType: **LCS** TestCode: **PMOIST** Units: **wt%** Prep Date: **7/7/2004** Run ID: **BALANCE_040707A**
Client ID: **ZZZZZ** Batch ID: **R13331** TestNo: **D2974** Analysis Date: **7/8/2004** SeqNo: **253659**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	4.72	0.01000	5	0	94.4	80	120	0	0		*

Sample ID **LCS-W** SampType: **LCS** TestCode: **PMOIST** Units: **wt%** Prep Date: **7/7/2004** Run ID: **BALANCE_040707A**
Client ID: **ZZZZZ** Batch ID: **R13331** TestNo: **D2974** Analysis Date: **7/8/2004** SeqNo: **253660**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	99.8	0.01000	99.8	0	100	80	120	0	0		*

Sample ID **0407024-001B DUP** SampType: **DUP** TestCode: **PMOIST** Units: **wt%** Prep Date: **7/7/2004** Run ID: **BALANCE_040707A**
Client ID: **ZZZZZ** Batch ID: **R13331** TestNo: **D2974** Analysis Date: **7/8/2004** SeqNo: **253680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	18.35	0.01000	0	0	0	0	0	17.78	3.16	20	*

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September 04, 2004

Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0407459

Dear Joan Gonzalez:

STAT Analysis received 9 samples for the referenced project on 7/28/2004. The analytical results are presented in the following report.

This report is revised to reflect changes made after the initial report was issued.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: September 04, 200

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0407459

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0407459-001A	HAS-CF03-001	7'-8'	7/28/2004 8:00:00 AM	7/28/2004
0407459-001B	HAS-CF03-001	7'-8'	7/28/2004 8:00:00 AM	7/28/2004
0407459-002A	HAS-CF03-002	6'-7'	7/28/2004 8:20:00 AM	7/28/2004
0407459-002B	HAS-CF03-002	6'-7'	7/28/2004 8:20:00 AM	7/28/2004
0407459-003A	HAS-CF02-001	6'-7'	7/28/2004 8:30:00 AM	7/28/2004
0407459-003B	HAS-CF02-001	6'-7'	7/28/2004 8:30:00 AM	7/28/2004
0407459-004A	HAS-CF04D-001	3'-4'	7/28/2004 9:40:00 AM	7/28/2004
0407459-004B	HAS-CF04D-001	3'-4'	7/28/2004 9:40:00 AM	7/28/2004
0407459-005A	HAS-CF04C-001	7'-8'	7/28/2004 10:15:00 AM	7/28/2004
0407459-005B	HAS-CF04C-001	7'-8'	7/28/2004 10:15:00 AM	7/28/2004
0407459-006A	HAS-CF05C-001	9'-10'	7/28/2004 10:50:00 AM	7/28/2004
0407459-006B	HAS-CF05C-001	9'-10'	7/28/2004 10:50:00 AM	7/28/2004
0407459-007A	HAS-CF06B-001	9'-10'	7/28/2004 12:40:00 PM	7/28/2004
0407459-007B	HAS-CF06B-001	9'-10'	7/28/2004 12:40:00 PM	7/28/2004
0407459-008A	HAS-CF07-001	8'-9'	7/28/2004 1:30:00 PM	7/28/2004
0407459-008B	HAS-CF07-001	8'-9'	7/28/2004 1:30:00 PM	7/28/2004
0407459-009A	HAS-CF06E-001	5'-6'	7/28/2004 2:00:00 PM	7/28/2004
0407459-009B	HAS-CF06E-001	5'-6'	7/28/2004 2:00:00 PM	7/28/2004

STAT Analysis Corporation

Date: *September 04, 2004*

CLIENT:	Burns & McDonnell
Project:	29168, Peoples Gas-Hawthorne Regulator Statio
Lab Order:	0407459

CASE NARRATIVE

In VOC soil LCS/LCSD analyzed 08/03/04 (VOC-2), Carbon Disulfide had high recovery (135%/131%, QC Limits 70-130%). RPD for Acetone is greater than 20%.

In VOC soil LCS/LCSD analyzed 08/03/04 (VOC-3), Acetone had high recovery (294%, QC Limits 50-150%) and 2-Butanone has high recovery (140%, QC limits 70-130%).

In SVOC soil LCS analysis, the following compounds had low recovery:
Acenaphthene: 62.3%, (QA Limits 65-101%)
2-Chlorophenol: 59.0%, (QA Limits 61-91%)
Phenol: 59.7%, (QA Limits 60-91%)
1,4-Dichlorobenzene: 54.6%, (QA Limits 55-90%)

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF03-001
Lab Order:	0407459	**Tag Number:**	7'-8'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:00:00 AM
Lab ID:	0407459-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/29/2004**		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.0052		mg/Kg-dry	1	8/3/2004
1,1,2,2-Tetrachloroethane	ND	0.0052		mg/Kg-dry	1	8/3/2004
1,1,2-Trichloroethane	ND	0.0052		mg/Kg-dry	1	8/3/2004
1,1-Dichloroethane	ND	0.0052		mg/Kg-dry	1	8/3/2004
1,1-Dichloroethene	ND	0.0052		mg/Kg-dry	1	8/3/2004
1,2-Dichloroethane	ND	0.0052		mg/Kg-dry	1	8/3/2004
1,2-Dichloropropane	ND	0.0052		mg/Kg-dry	1	8/3/2004
2-Butanone	ND	0.01		mg/Kg-dry	1	8/3/2004
2-Hexanone	ND	0.01		mg/Kg-dry	1	8/3/2004
4-Methyl-2-pentanone	ND	0.01		mg/Kg-dry	1	8/3/2004
Acetone	ND	0.026		mg/Kg-dry	1	8/3/2004
Benzene	ND	0.0052		mg/Kg-dry	1	8/3/2004
Bromodichloromethane	ND	0.0052		mg/Kg-dry	1	8/3/2004
Bromoform	ND	0.0052		mg/Kg-dry	1	8/3/2004
Bromomethane	ND	0.01		mg/Kg-dry	1	8/3/2004
Carbon disulfide	ND	0.0052		mg/Kg-dry	1	8/3/2004
Carbon tetrachloride	ND	0.0052		mg/Kg-dry	1	8/3/2004
Chlorobenzene	ND	0.0052		mg/Kg-dry	1	8/3/2004
Chloroethane	ND	0.01		mg/Kg-dry	1	8/3/2004
Chloroform	ND	0.0052		mg/Kg-dry	1	8/3/2004
Chloromethane	ND	0.01		mg/Kg-dry	1	8/3/2004
cis-1,2-Dichloroethene	ND	0.0052		mg/Kg-dry	1	8/3/2004
cis-1,3-Dichloropropene	ND	0.0052		mg/Kg-dry	1	8/3/2004
Dibromochloromethane	ND	0.0052		mg/Kg-dry	1	8/3/2004
Ethylbenzene	ND	0.0052		mg/Kg-dry	1	8/3/2004
Methyl tert-butyl ether	ND	0.0052		mg/Kg-dry	1	8/3/2004
Methylene chloride	ND	0.01		mg/Kg-dry	1	8/3/2004
Styrene	ND	0.0052		mg/Kg-dry	1	8/3/2004
Tetrachloroethene	ND	0.0052		mg/Kg-dry	1	8/3/2004
Toluene	ND	0.0052		mg/Kg-dry	1	8/3/2004
trans-1,2-Dichloroethene	ND	0.0052		mg/Kg-dry	1	8/3/2004
trans-1,3-Dichloropropene	ND	0.0052		mg/Kg-dry	1	8/3/2004
Trichloroethene	ND	0.0052		mg/Kg-dry	1	8/3/2004
Vinyl chloride	ND	0.0052		mg/Kg-dry	1	8/3/2004
Xylenes, Total	ND	0.01		mg/Kg-dry	1	8/3/2004
m,p-Xylene	ND	0.0052		mg/Kg-dry	1	8/3/2004
o-Xylene	ND	0.0052		mg/Kg-dry	1	8/3/2004

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STAT Analysis Corporation
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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF03-001
Lab Order:	0407459	**Tag Number:**	7'-8'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:00:00 AM
Lab ID:	0407459-001B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **8/2/2004**		Analyst: **JG**
Mercury	ND	0.029		mg/Kg-dry	1	8/3/2004
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/30/2004**		Analyst: **BJA**
Antimony	ND	3.4		mg/Kg-dry	10	7/30/2004
Arsenic	5.2	0.57		mg/Kg-dry	10	7/30/2004
Beryllium	ND	0.57		mg/Kg-dry	10	7/30/2004
Cadmium	ND	0.57		mg/Kg-dry	10	7/30/2004
Chromium	15	1.1		mg/Kg-dry	10	8/2/2004
Copper	24	2.8		mg/Kg-dry	10	8/2/2004
Lead	280	0.57		mg/Kg-dry	10	7/30/2004
Nickel	24	1.1		mg/Kg-dry	10	8/2/2004
Selenium	ND	1.1		mg/Kg-dry	10	7/30/2004
Silver	ND	1.1		mg/Kg-dry	10	7/30/2004
Thallium	ND	1.1		mg/Kg-dry	10	7/30/2004
Zinc	57	5.7		mg/Kg-dry	10	8/2/2004
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **VS**
Acenaphthene	0.13	0.029		mg/Kg-dry	1	8/4/2004
Acenaphthylene	0.11	0.029		mg/Kg-dry	1	8/4/2004
Anthracene	0.27	0.029		mg/Kg-dry	1	8/4/2004
Benz(a)anthracene	0.9	0.29		mg/Kg-dry	10	8/4/2004
Benzo(b)fluoranthene	0.68	0.29		mg/Kg-dry	10	8/4/2004
Benzo(k)fluoranthene	0.7	0.29		mg/Kg-dry	10	8/4/2004
Benzo(g,h,i)perylene	0.58	0.29		mg/Kg-dry	10	8/4/2004
Benzo(a)pyrene	1.1	0.29		mg/Kg-dry	10	8/4/2004
Chrysene	0.92	0.29		mg/Kg-dry	10	8/4/2004
Dibenz(a,h)anthracene	0.073	0.029		mg/Kg-dry	1	8/4/2004
Fluoranthene	1.9	0.29		mg/Kg-dry	10	8/4/2004
Fluorene	0.2	0.029		mg/Kg-dry	1	8/4/2004
Indeno(1,2,3-cd)pyrene	0.42	0.29		mg/Kg-dry	10	8/4/2004
Naphthalene	0.077	0.029		mg/Kg-dry	1	8/4/2004
Phenanthrene	0.88	0.29		mg/Kg-dry	10	8/4/2004
Pyrene	2.2	0.29		mg/Kg-dry	10	8/4/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.39		mg/Kg-dry	1	8/3/2004
1,2-Dichlorobenzene	ND	0.39		mg/Kg-dry	1	8/3/2004
1,3-Dichlorobenzene	ND	0.39		mg/Kg-dry	1	8/3/2004
1,4-Dichlorobenzene	ND	0.39		mg/Kg-dry	1	8/3/2004
2, 2'-oxybis(1-Chloropropane	ND	0.39		mg/Kg-dry	1	8/3/2004

Qualifiers:
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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF03-001
Lab Order:	0407459	**Tag Number:**	7'-8'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:00:00 AM
Lab ID:	0407459-001B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
2,4,5-Trichlorophenol	ND	0.78		mg/Kg-dry	1	8/3/2004
2,4,6-Trichlorophenol	ND	0.39		mg/Kg-dry	1	8/3/2004
2,4-Dichlorophenol	ND	0.39		mg/Kg-dry	1	8/3/2004
2,4-Dimethylphenol	ND	0.39		mg/Kg-dry	1	8/3/2004
2,4-Dinitrophenol	ND	1.9		mg/Kg-dry	1	8/3/2004
2,4-Dinitrotoluene	ND	0.39		mg/Kg-dry	1	8/3/2004
2,6-Dinitrotoluene	ND	0.39		mg/Kg-dry	1	8/3/2004
2-Chloronaphthalene	ND	0.39		mg/Kg-dry	1	8/3/2004
2-Chlorophenol	ND	0.39		mg/Kg-dry	1	8/3/2004
2-Methylnaphthalene	ND	0.39		mg/Kg-dry	1	8/3/2004
2-Methylphenol	ND	0.39		mg/Kg-dry	1	8/3/2004
2-Nitroaniline	ND	1.9		mg/Kg-dry	1	8/3/2004
2-Nitrophenol	ND	0.39		mg/Kg-dry	1	8/3/2004
3,3'-Dichlorobenzidine	ND	0.78		mg/Kg-dry	1	8/3/2004
3-Nitroaniline	ND	1.9		mg/Kg-dry	1	8/3/2004
4,6-Dinitro-2-methylphenol	ND	1.9		mg/Kg-dry	1	8/3/2004
4-Bromophenyl phenyl ether	ND	0.39		mg/Kg-dry	1	8/3/2004
4-Chloro-3-methylphenol	ND	0.39		mg/Kg-dry	1	8/3/2004
4-Chloroaniline	ND	0.39		mg/Kg-dry	1	8/3/2004
4-Chlorophenyl phenyl ether	ND	0.39		mg/Kg-dry	1	8/3/2004
4-Methylphenol	ND	0.39		mg/Kg-dry	1	8/3/2004
4-Nitroaniline	ND	1.9		mg/Kg-dry	1	8/3/2004
4-Nitrophenol	ND	1.9		mg/Kg-dry	1	8/3/2004
Aniline	ND	0.39		mg/Kg-dry	1	8/3/2004
Benzidine	ND	0.39		mg/Kg-dry	1	8/3/2004
Benzoic acid	ND	1.9		mg/Kg-dry	1	8/3/2004
Benzyl alcohol	ND	0.39		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethoxy)methane	ND	0.39		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethyl)ether	ND	0.39		mg/Kg-dry	1	8/3/2004
Bis(2-ethylhexyl)phthalate	ND	0.39		mg/Kg-dry	1	8/3/2004
Butyl benzyl phthalate	ND	0.39		mg/Kg-dry	1	8/3/2004
Carbazole	ND	0.39		mg/Kg-dry	1	8/3/2004
Di-n-butyl phthalate	ND	0.39		mg/Kg-dry	1	8/3/2004
Di-n-octyl phthalate	ND	0.39		mg/Kg-dry	1	8/3/2004
Dibenzofuran	ND	0.39		mg/Kg-dry	1	8/3/2004
Diethyl phthalate	ND	0.39		mg/Kg-dry	1	8/3/2004
Dimethyl phthalate	ND	0.39		mg/Kg-dry	1	8/3/2004
Hexachlorobenzene	ND	0.39		mg/Kg-dry	1	8/3/2004

Qualifiers:
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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF03-001
Lab Order:	0407459	**Tag Number:**	7'-8'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:00:00 AM
Lab ID:	0407459-001B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
Hexachlorobutadiene	ND	0.39		mg/Kg-dry	1	8/3/2004
Hexachlorocyclopentadiene	ND	0.39		mg/Kg-dry	1	8/3/2004
Hexachloroethane	ND	0.39		mg/Kg-dry	1	8/3/2004
Isophorone	ND	0.39		mg/Kg-dry	1	8/3/2004
N-Nitrosodi-n-propylamine	ND	0.39		mg/Kg-dry	1	8/3/2004
N-Nitrosodimethylamine	ND	0.39		mg/Kg-dry	1	8/3/2004
N-Nitrosodiphenylamine	ND	0.39		mg/Kg-dry	1	8/3/2004
Nitrobenzene	ND	0.39		mg/Kg-dry	1	8/3/2004
Pentachlorophenol	ND	1.9		mg/Kg-dry	1	8/3/2004
Phenol	ND	0.39		mg/Kg-dry	1	8/3/2004
Pyridine	ND	0.39		mg/Kg-dry	1	8/3/2004
Cyanide, Total	**SW9012A**			Prep Date: **7/30/2004**		Analyst: **YZ**
Cyanide	ND	0.3		mg/Kg-dry	1	8/3/2004
Percent Moisture	**D2974**			Prep Date: **7/30/2004**		Analyst: **RW**
Percent Moisture	16.59	0.01	*	wt%	1	7/31/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
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STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF03-002
Lab Order:	0407459	**Tag Number:**	6'-7'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:20:00 AM
Lab ID:	0407459-002A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/29/2004**		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.011		mg/Kg-dry	1	8/3/2004
1,1,2,2-Tetrachloroethane	ND	0.011		mg/Kg-dry	1	8/3/2004
1,1,2-Trichloroethane	ND	0.011		mg/Kg-dry	1	8/3/2004
1,1-Dichloroethane	ND	0.011		mg/Kg-dry	1	8/3/2004
1,1-Dichloroethene	ND	0.011		mg/Kg-dry	1	8/3/2004
1,2-Dichloroethane	ND	0.011		mg/Kg-dry	1	8/3/2004
1,2-Dichloropropane	ND	0.011		mg/Kg-dry	1	8/3/2004
2-Butanone	ND	0.022		mg/Kg-dry	1	8/3/2004
2-Hexanone	ND	0.022		mg/Kg-dry	1	8/3/2004
4-Methyl-2-pentanone	ND	0.022		mg/Kg-dry	1	8/3/2004
Acetone	ND	0.056		mg/Kg-dry	1	8/3/2004
Benzene	ND	0.011		mg/Kg-dry	1	8/3/2004
Bromodichloromethane	ND	0.011		mg/Kg-dry	1	8/3/2004
Bromoform	ND	0.011		mg/Kg-dry	1	8/3/2004
Bromomethane	ND	0.022		mg/Kg-dry	1	8/3/2004
Carbon disulfide	ND	0.011		mg/Kg-dry	1	8/3/2004
Carbon tetrachloride	ND	0.011		mg/Kg-dry	1	8/3/2004
Chlorobenzene	ND	0.011		mg/Kg-dry	1	8/3/2004
Chloroethane	ND	0.022		mg/Kg-dry	1	8/3/2004
Chloroform	ND	0.011		mg/Kg-dry	1	8/3/2004
Chloromethane	ND	0.022		mg/Kg-dry	1	8/3/2004
cis-1,2-Dichloroethene	ND	0.011		mg/Kg-dry	1	8/3/2004
cis-1,3-Dichloropropene	ND	0.011		mg/Kg-dry	1	8/3/2004
Dibromochloromethane	ND	0.011		mg/Kg-dry	1	8/3/2004
Ethylbenzene	ND	0.011		mg/Kg-dry	1	8/3/2004
Methyl tert-butyl ether	ND	0.011		mg/Kg-dry	1	8/3/2004
Methylene chloride	ND	0.022		mg/Kg-dry	1	8/3/2004
Styrene	ND	0.011		mg/Kg-dry	1	8/3/2004
Tetrachloroethene	ND	0.011		mg/Kg-dry	1	8/3/2004
Toluene	ND	0.011		mg/Kg-dry	1	8/3/2004
trans-1,2-Dichloroethene	ND	0.011		mg/Kg-dry	1	8/3/2004
trans-1,3-Dichloropropene	ND	0.011		mg/Kg-dry	1	8/3/2004
Trichloroethene	ND	0.011		mg/Kg-dry	1	8/3/2004
Vinyl chloride	ND	0.011		mg/Kg-dry	1	8/3/2004
Xylenes, Total	ND	0.022		mg/Kg-dry	1	8/3/2004
m,p-Xylene	ND	0.011		mg/Kg-dry	1	8/3/2004
o-Xylene	ND	0.011		mg/Kg-dry	1	8/3/2004

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client: Burns & McDonnell
Lab Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0407459-002B

Client Sample ID: HAS-CF03-002
Tag Number: 6'-7'
Collection Date: 7/28/2004 8:20:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **8/2/2004**		Analyst: **JG**
Mercury	0.79	0.041		mg/Kg-dry	1	8/3/2004
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/30/2004**		Analyst: **BJA**
Antimony	5.7	4.7		mg/Kg-dry	10	7/30/2004
Arsenic	12	0.78		mg/Kg-dry	10	7/30/2004
Beryllium	ND	0.78		mg/Kg-dry	10	7/30/2004
Cadmium	0.85	0.78		mg/Kg-dry	10	7/30/2004
Chromium	23	1.6		mg/Kg-dry	10	7/30/2004
Copper	380	3.9		mg/Kg-dry	10	8/2/2004
Lead	7200	7.8		mg/Kg-dry	50	8/2/2004
Nickel	14	1.6		mg/Kg-dry	10	8/2/2004
Selenium	1.8	1.6		mg/Kg-dry	10	7/30/2004
Silver	ND	1.6		mg/Kg-dry	10	7/30/2004
Thallium	ND	1.6		mg/Kg-dry	10	7/30/2004
Zinc	330	7.8		mg/Kg-dry	10	7/30/2004
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **VS**
Acenaphthene	7.4	4.1		mg/Kg-dry	100	8/4/2004
Acenaphthylene	4.2	4.1		mg/Kg-dry	100	8/4/2004
Anthracene	15	4.1		mg/Kg-dry	100	8/4/2004
Benz(a)anthracene	39	4.1		mg/Kg-dry	100	8/4/2004
Benzo(b)fluoranthene	36	4.1		mg/Kg-dry	100	8/4/2004
Benzo(k)fluoranthene	9	4.1		mg/Kg-dry	100	8/4/2004
Benzo(g,h,i)perylene	16	4.1		mg/Kg-dry	100	8/4/2004
Benzo(a)pyrene	33	4.1		mg/Kg-dry	100	8/4/2004
Chrysene	27	4.1		mg/Kg-dry	100	8/4/2004
Dibenz(a,h)anthracene	3.4	0.41		mg/Kg-dry	10	8/4/2004
Fluoranthene	97	41		mg/Kg-dry	1000	8/4/2004
Fluorene	11	4.1		mg/Kg-dry	100	8/4/2004
Indeno(1,2,3-cd)pyrene	13	4.1		mg/Kg-dry	100	8/4/2004
Naphthalene	5.7	4.1		mg/Kg-dry	100	8/4/2004
Phenanthrene	55	41		mg/Kg-dry	1000	8/4/2004
Pyrene	110	41		mg/Kg-dry	1000	8/4/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.54		mg/Kg-dry	1	8/4/2004
1,2-Dichlorobenzene	ND	0.54		mg/Kg-dry	1	8/4/2004
1,3-Dichlorobenzene	ND	0.54		mg/Kg-dry	1	8/4/2004
1,4-Dichlorobenzene	ND	0.54		mg/Kg-dry	1	8/4/2004
2, 2'-oxybis(1-Chloropropane	ND	0.54		mg/Kg-dry	1	8/4/2004

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF03-002
Lab Order:	0407459	**Tag Number:**	6'-7'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:20:00 AM
Lab ID:	0407459-002B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
2,4,5-Trichlorophenol	ND	1.1		mg/Kg-dry	1	8/4/2004
2,4,6-Trichlorophenol	ND	0.54		mg/Kg-dry	1	8/4/2004
2,4-Dichlorophenol	ND	0.54		mg/Kg-dry	1	8/4/2004
2,4-Dimethylphenol	ND	0.54		mg/Kg-dry	1	8/4/2004
2,4-Dinitrophenol	ND	2.6		mg/Kg-dry	1	8/4/2004
2,4-Dinitrotoluene	ND	0.54		mg/Kg-dry	1	8/4/2004
2,6-Dinitrotoluene	ND	0.54		mg/Kg-dry	1	8/4/2004
2-Chloronaphthalene	ND	0.54		mg/Kg-dry	1	8/4/2004
2-Chlorophenol	ND	0.54		mg/Kg-dry	1	8/4/2004
2-Methylnaphthalene	2.3	0.54		mg/Kg-dry	1	8/4/2004
2-Methylphenol	ND	0.54		mg/Kg-dry	1	8/4/2004
2-Nitroaniline	ND	2.6		mg/Kg-dry	1	8/4/2004
2-Nitrophenol	ND	0.54		mg/Kg-dry	1	8/4/2004
3,3'-Dichlorobenzidine	ND	1.1		mg/Kg-dry	1	8/4/2004
3-Nitroaniline	ND	2.6		mg/Kg-dry	1	8/4/2004
4,6-Dinitro-2-methylphenol	ND	2.6		mg/Kg-dry	1	8/4/2004
4-Bromophenyl phenyl ether	ND	0.54		mg/Kg-dry	1	8/4/2004
4-Chloro-3-methylphenol	ND	0.54		mg/Kg-dry	1	8/4/2004
4-Chloroaniline	ND	0.54		mg/Kg-dry	1	8/4/2004
4-Chlorophenyl phenyl ether	ND	0.54		mg/Kg-dry	1	8/4/2004
4-Methylphenol	1.8	0.54		mg/Kg-dry	1	8/4/2004
4-Nitroaniline	ND	2.6		mg/Kg-dry	1	8/4/2004
4-Nitrophenol	ND	2.6		mg/Kg-dry	1	8/4/2004
Aniline	ND	0.54		mg/Kg-dry	1	8/4/2004
Benzidine	ND	0.54		mg/Kg-dry	1	8/4/2004
Benzoic acid	ND	2.6		mg/Kg-dry	1	8/4/2004
Benzyl alcohol	ND	0.54		mg/Kg-dry	1	8/4/2004
Bis(2-chloroethoxy)methane	ND	0.54		mg/Kg-dry	1	8/4/2004
Bis(2-chloroethyl)ether	ND	0.54		mg/Kg-dry	1	8/4/2004
Bis(2-ethylhexyl)phthalate	ND	0.54		mg/Kg-dry	1	8/4/2004
Butyl benzyl phthalate	ND	0.54		mg/Kg-dry	1	8/4/2004
Carbazole	2.1	0.54		mg/Kg-dry	1	8/4/2004
Di-n-butyl phthalate	ND	0.54		mg/Kg-dry	1	8/4/2004
Di-n-octyl phthalate	ND	0.54		mg/Kg-dry	1	8/4/2004
Dibenzofuran	4.5	0.54		mg/Kg-dry	1	8/4/2004
Diethyl phthalate	ND	0.54		mg/Kg-dry	1	8/4/2004
Dimethyl phthalate	ND	0.54		mg/Kg-dry	1	8/4/2004
Hexachlorobenzene	ND	0.54		mg/Kg-dry	1	8/4/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF03-002
Lab Order:	0407459	**Tag Number:**	6'-7'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:20:00 AM
Lab ID:	0407459-002B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
Hexachlorobutadiene	ND	0.54		mg/Kg-dry	1	8/4/2004
Hexachlorocyclopentadiene	ND	0.54		mg/Kg-dry	1	8/4/2004
Hexachloroethane	ND	0.54		mg/Kg-dry	1	8/4/2004
Isophorone	ND	0.54		mg/Kg-dry	1	8/4/2004
N-Nitrosodi-n-propylamine	ND	0.54		mg/Kg-dry	1	8/4/2004
N-Nitrosodimethylamine	ND	0.54		mg/Kg-dry	1	8/4/2004
N-Nitrosodiphenylamine	ND	0.54		mg/Kg-dry	1	8/4/2004
Nitrobenzene	ND	0.54		mg/Kg-dry	1	8/4/2004
Pentachlorophenol	ND	2.6		mg/Kg-dry	1	8/4/2004
Phenol	ND	0.54		mg/Kg-dry	1	8/4/2004
Pyridine	ND	0.54		mg/Kg-dry	1	8/4/2004
Cyanide, Total	**SW9012A**			Prep Date: **7/30/2004**		Analyst: **YZ**
Cyanide	ND	0.42		mg/Kg-dry	1	8/3/2004
Percent Moisture	**D2974**			Prep Date: **7/30/2004**		Analyst: **RW**
Percent Moisture	39.96	0.01	*	wt%	1	7/31/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF02-001
Lab Order:	0407459	**Tag Number:**	6'-7'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:30:00 AM
Lab ID:	0407459-003A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/29/2004**		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.0068		mg/Kg-dry	1	8/3/2004
1,1,2,2-Tetrachloroethane	ND	0.0068		mg/Kg-dry	1	8/3/2004
1,1,2-Trichloroethane	ND	0.0068		mg/Kg-dry	1	8/3/2004
1,1-Dichloroethane	ND	0.0068		mg/Kg-dry	1	8/3/2004
1,1-Dichloroethene	ND	0.0068		mg/Kg-dry	1	8/3/2004
1,2-Dichloroethane	ND	0.0068		mg/Kg-dry	1	8/3/2004
1,2-Dichloropropane	ND	0.0068		mg/Kg-dry	1	8/3/2004
2-Butanone	ND	0.014		mg/Kg-dry	1	8/3/2004
2-Hexanone	ND	0.014		mg/Kg-dry	1	8/3/2004
4-Methyl-2-pentanone	ND	0.014		mg/Kg-dry	1	8/3/2004
Acetone	ND	0.034		mg/Kg-dry	1	8/3/2004
Benzene	ND	0.0068		mg/Kg-dry	1	8/3/2004
Bromodichloromethane	ND	0.0068		mg/Kg-dry	1	8/3/2004
Bromoform	ND	0.0068		mg/Kg-dry	1	8/3/2004
Bromomethane	ND	0.014		mg/Kg-dry	1	8/3/2004
Carbon disulfide	ND	0.0068		mg/Kg-dry	1	8/3/2004
Carbon tetrachloride	ND	0.0068		mg/Kg-dry	1	8/3/2004
Chlorobenzene	ND	0.0068		mg/Kg-dry	1	8/3/2004
Chloroethane	ND	0.014		mg/Kg-dry	1	8/3/2004
Chloroform	ND	0.0068		mg/Kg-dry	1	8/3/2004
Chloromethane	ND	0.014		mg/Kg-dry	1	8/3/2004
cis-1,2-Dichloroethene	ND	0.0068		mg/Kg-dry	1	8/3/2004
cis-1,3-Dichloropropene	ND	0.0068		mg/Kg-dry	1	8/3/2004
Dibromochloromethane	ND	0.0068		mg/Kg-dry	1	8/3/2004
Ethylbenzene	ND	0.0068		mg/Kg-dry	1	8/3/2004
Methyl tert-butyl ether	ND	0.0068		mg/Kg-dry	1	8/3/2004
Methylene chloride	ND	0.014		mg/Kg-dry	1	8/3/2004
Styrene	ND	0.0068		mg/Kg-dry	1	8/3/2004
Tetrachloroethene	ND	0.0068		mg/Kg-dry	1	8/3/2004
Toluene	ND	0.0068		mg/Kg-dry	1	8/3/2004
trans-1,2-Dichloroethene	ND	0.0068		mg/Kg-dry	1	8/3/2004
trans-1,3-Dichloropropene	ND	0.0068		mg/Kg-dry	1	8/3/2004
Trichloroethene	ND	0.0068		mg/Kg-dry	1	8/3/2004
Vinyl chloride	ND	0.0068		mg/Kg-dry	1	8/3/2004
Xylenes, Total	ND	0.014		mg/Kg-dry	1	8/3/2004
m,p-Xylene	ND	0.0068		mg/Kg-dry	1	8/3/2004
o-Xylene	ND	0.0068		mg/Kg-dry	1	8/3/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF02-001
Lab Order:	0407459	**Tag Number:**	6'-7'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:30:00 AM
Lab ID:	0407459-003B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **8/2/2004**		Analyst: **JG**
Mercury	0.83	0.033		mg/Kg-dry	1	8/3/2004
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/30/2004**		Analyst: **BJA**
Antimony	11	3.9		mg/Kg-dry	10	7/30/2004
Arsenic	31	0.65		mg/Kg-dry	10	7/30/2004
Beryllium	0.71	0.65		mg/Kg-dry	10	7/30/2004
Cadmium	3.6	0.65		mg/Kg-dry	10	7/30/2004
Chromium	39	2.6		mg/Kg-dry	20	7/30/2004
Copper	4100	32		mg/Kg-dry	100	8/2/2004
Lead	890	0.65		mg/Kg-dry	10	7/30/2004
Nickel	19	3.9		mg/Kg-dry	20	7/30/2004
Selenium	1.8	1.3		mg/Kg-dry	10	7/30/2004
Silver	ND	1.3		mg/Kg-dry	10	7/30/2004
Thallium	ND	1.3		mg/Kg-dry	10	7/30/2004
Zinc	770	13		mg/Kg-dry	20	7/30/2004
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **VS**
Acenaphthene	0.69	0.34		mg/Kg-dry	10	8/4/2004
Acenaphthylene	0.22	0.034		mg/Kg-dry	1	8/4/2004
Anthracene	2.6	0.34		mg/Kg-dry	10	8/4/2004
Benz(a)anthracene	6.4	3.4		mg/Kg-dry	100	8/3/2004
Benzo(b)fluoranthene	7.7	3.4		mg/Kg-dry	100	8/3/2004
Benzo(k)fluoranthene	2.5	0.34		mg/Kg-dry	10	8/4/2004
Benzo(g,h,i)perylene	4.4	3.4		mg/Kg-dry	100	8/3/2004
Benzo(a)pyrene	7	3.4		mg/Kg-dry	100	8/3/2004
Chrysene	4.9	3.4		mg/Kg-dry	100	8/3/2004
Dibenz(a,h)anthracene	1	0.34		mg/Kg-dry	10	8/4/2004
Fluoranthene	12	3.4		mg/Kg-dry	100	8/3/2004
Fluorene	0.9	0.34		mg/Kg-dry	10	8/4/2004
Indeno(1,2,3-cd)pyrene	3.3	0.34		mg/Kg-dry	10	8/4/2004
Naphthalene	0.54	0.34		mg/Kg-dry	10	8/4/2004
Phenanthrene	7.5	3.4		mg/Kg-dry	100	8/3/2004
Pyrene	14	3.4		mg/Kg-dry	100	8/3/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
1,2-Dichlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
1,3-Dichlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
1,4-Dichlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
2, 2'-oxybis(1-Chloropropane	ND	0.44		mg/Kg-dry	1	8/3/2004

Qualifiers:
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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF02-001
Lab Order:	0407459	**Tag Number:**	6'-7'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:30:00 AM
Lab ID:	0407459-003B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
2,4,5-Trichlorophenol	ND	0.89		mg/Kg-dry	1	8/3/2004
2,4,6-Trichlorophenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2,4-Dichlorophenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2,4-Dimethylphenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2,4-Dinitrophenol	ND	2.1		mg/Kg-dry	1	8/3/2004
2,4-Dinitrotoluene	ND	0.44		mg/Kg-dry	1	8/3/2004
2,6-Dinitrotoluene	ND	0.44		mg/Kg-dry	1	8/3/2004
2-Chloronaphthalene	ND	0.44		mg/Kg-dry	1	8/3/2004
2-Chlorophenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2-Methylnaphthalene	ND	0.44		mg/Kg-dry	1	8/3/2004
2-Methylphenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2-Nitroaniline	ND	2.1		mg/Kg-dry	1	8/3/2004
2-Nitrophenol	ND	0.44		mg/Kg-dry	1	8/3/2004
3,3'-Dichlorobenzidine	ND	0.89		mg/Kg-dry	1	8/3/2004
3-Nitroaniline	ND	2.1		mg/Kg-dry	1	8/3/2004
4,6-Dinitro-2-methylphenol	ND	2.1		mg/Kg-dry	1	8/3/2004
4-Bromophenyl phenyl ether	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Chloro-3-methylphenol	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Chloroaniline	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Chlorophenyl phenyl ether	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Methylphenol	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Nitroaniline	ND	2.1		mg/Kg-dry	1	8/3/2004
4-Nitrophenol	ND	2.1		mg/Kg-dry	1	8/3/2004
Aniline	ND	0.44		mg/Kg-dry	1	8/3/2004
Benzidine	ND	0.44		mg/Kg-dry	1	8/3/2004
Benzoic acid	ND	2.1		mg/Kg-dry	1	8/3/2004
Benzyl alcohol	ND	0.44		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethoxy)methane	ND	0.44		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethyl)ether	ND	0.44		mg/Kg-dry	1	8/3/2004
Bis(2-ethylhexyl)phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Butyl benzyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Carbazole	ND	0.44		mg/Kg-dry	1	8/3/2004
Di-n-butyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Di-n-octyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Dibenzofuran	ND	0.44		mg/Kg-dry	1	8/3/2004
Diethyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Dimethyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Hexachlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client: Burns & McDonnell
Lab Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0407459-003B

Client Sample ID: HAS-CF02-001
Tag Number: 6'-7'
Collection Date: 7/28/2004 8:30:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
Hexachlorobutadiene	ND	0.44		mg/Kg-dry	1	8/3/2004
Hexachlorocyclopentadiene	ND	0.44		mg/Kg-dry	1	8/3/2004
Hexachloroethane	ND	0.44		mg/Kg-dry	1	8/3/2004
Isophorone	ND	0.44		mg/Kg-dry	1	8/3/2004
N-Nitrosodi-n-propylamine	ND	0.44		mg/Kg-dry	1	8/3/2004
N-Nitrosodimethylamine	ND	0.44		mg/Kg-dry	1	8/3/2004
N-Nitrosodiphenylamine	ND	0.44		mg/Kg-dry	1	8/3/2004
Nitrobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
Pentachlorophenol	ND	2.1		mg/Kg-dry	1	8/3/2004
Phenol	ND	0.44		mg/Kg-dry	1	8/3/2004
Pyridine	ND	0.44		mg/Kg-dry	1	8/3/2004
Cyanide, Total	**SW9012A**			Prep Date: **7/30/2004**		Analyst: **YZ**
Cyanide	ND	0.34		mg/Kg-dry	1	8/3/2004
Percent Moisture	**D2974**			Prep Date: **7/30/2004**		Analyst: **RW**
Percent Moisture	26.09	0.01	*	wt%	1	7/31/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF04D-001
Lab Order:	0407459	**Tag Number:**	3'-4'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 9:40:00 AM
Lab ID:	0407459-004A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/29/2004**		Analyst: **MP**
1,1,1-Trichloroethane	0.42	0.29		mg/Kg-dry	50	8/3/2004
1,1,2,2-Tetrachloroethane	ND	0.0058		mg/Kg-dry	1	8/4/2004
1,1,2-Trichloroethane	ND	0.0058		mg/Kg-dry	1	8/4/2004
1,1-Dichloroethane	ND	0.0058		mg/Kg-dry	1	8/4/2004
1,1-Dichloroethene	ND	0.0058		mg/Kg-dry	1	8/4/2004
1,2-Dichloroethane	ND	0.0058		mg/Kg-dry	1	8/4/2004
1,2-Dichloropropane	ND	0.0058		mg/Kg-dry	1	8/4/2004
2-Butanone	ND	0.012		mg/Kg-dry	1	8/4/2004
2-Hexanone	ND	0.012		mg/Kg-dry	1	8/4/2004
4-Methyl-2-pentanone	ND	0.012		mg/Kg-dry	1	8/4/2004
Acetone	ND	0.029		mg/Kg-dry	1	8/4/2004
Benzene	2.7	0.29		mg/Kg-dry	50	8/3/2004
Bromodichloromethane	ND	0.0058		mg/Kg-dry	1	8/4/2004
Bromoform	ND	0.0058		mg/Kg-dry	1	8/4/2004
Bromomethane	ND	0.012		mg/Kg-dry	1	8/4/2004
Carbon disulfide	ND	0.0058		mg/Kg-dry	1	8/4/2004
Carbon tetrachloride	ND	0.0058		mg/Kg-dry	1	8/4/2004
Chlorobenzene	ND	0.0058		mg/Kg-dry	1	8/4/2004
Chloroethane	ND	0.012		mg/Kg-dry	1	8/4/2004
Chloroform	ND	0.0058		mg/Kg-dry	1	8/4/2004
Chloromethane	ND	0.012		mg/Kg-dry	1	8/4/2004
cis-1,2-Dichloroethene	ND	0.0058		mg/Kg-dry	1	8/4/2004
cis-1,3-Dichloropropene	ND	0.0058		mg/Kg-dry	1	8/4/2004
Dibromochloromethane	ND	0.0058		mg/Kg-dry	1	8/4/2004
Ethylbenzene	ND	0.0058		mg/Kg-dry	1	8/4/2004
Methyl tert-butyl ether	ND	0.0058		mg/Kg-dry	1	8/4/2004
Methylene chloride	ND	0.012		mg/Kg-dry	1	8/4/2004
Styrene	ND	0.0058		mg/Kg-dry	1	8/4/2004
Tetrachloroethene	0.041	0.0058		mg/Kg-dry	1	8/4/2004
Toluene	ND	0.0058		mg/Kg-dry	1	8/4/2004
trans-1,2-Dichloroethene	ND	0.0058		mg/Kg-dry	1	8/4/2004
trans-1,3-Dichloropropene	ND	0.0058		mg/Kg-dry	1	8/4/2004
Trichloroethene	ND	0.0058		mg/Kg-dry	1	8/4/2004
Vinyl chloride	ND	0.0058		mg/Kg-dry	1	8/4/2004
Xylenes, Total	ND	0.012		mg/Kg-dry	1	8/4/2004
m,p-Xylene	ND	0.0058		mg/Kg-dry	1	8/4/2004
o-Xylene	ND	0.0058		mg/Kg-dry	1	8/4/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF04D-001
Lab Order:	0407459	**Tag Number:**	3'-4'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 9:40:00 AM
Lab ID:	0407459-004B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **8/2/2004**		Analyst: **JG**
Mercury	0.54	0.03		mg/Kg-dry	1	8/3/2004
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/30/2004**		Analyst: **BJA**
Antimony	ND	3.5		mg/Kg-dry	10	7/30/2004
Arsenic	10	0.58		mg/Kg-dry	10	7/30/2004
Beryllium	0.65	0.58		mg/Kg-dry	10	7/30/2004
Cadmium	ND	0.58		mg/Kg-dry	10	7/30/2004
Chromium	14	1.2		mg/Kg-dry	10	7/30/2004
Copper	67	2.9		mg/Kg-dry	10	8/2/2004
Lead	180	0.58		mg/Kg-dry	10	7/30/2004
Nickel	25	1.2		mg/Kg-dry	10	8/2/2004
Selenium	ND	1.2		mg/Kg-dry	10	7/30/2004
Silver	ND	1.2		mg/Kg-dry	10	7/30/2004
Thallium	ND	1.2		mg/Kg-dry	10	7/30/2004
Zinc	84	5.8		mg/Kg-dry	10	7/30/2004
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **VS**
Acenaphthene	0.15	0.031		mg/Kg-dry	1	8/4/2004
Acenaphthylene	0.16	0.031		mg/Kg-dry	1	8/4/2004
Anthracene	0.66	0.31		mg/Kg-dry	10	8/3/2004
Benz(a)anthracene	2	0.31		mg/Kg-dry	10	8/3/2004
Benzo(b)fluoranthene	2.2	0.31		mg/Kg-dry	10	8/3/2004
Benzo(k)fluoranthene	0.65	0.31		mg/Kg-dry	10	8/3/2004
Benzo(g,h,i)perylene	1.2	0.31		mg/Kg-dry	10	8/3/2004
Benzo(a)pyrene	2	0.31		mg/Kg-dry	10	8/3/2004
Chrysene	1.4	0.31		mg/Kg-dry	10	8/3/2004
Dibenz(a,h)anthracene	0.23	0.031		mg/Kg-dry	1	8/4/2004
Fluoranthene	3.6	0.31		mg/Kg-dry	10	8/3/2004
Fluorene	0.31	0.31		mg/Kg-dry	10	8/3/2004
Indeno(1,2,3-cd)pyrene	0.99	0.31		mg/Kg-dry	10	8/3/2004
Naphthalene	0.3	0.031		mg/Kg-dry	1	8/4/2004
Phenanthrene	3.9	0.31		mg/Kg-dry	10	8/3/2004
Pyrene	4.1	0.31		mg/Kg-dry	10	8/3/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.41		mg/Kg-dry	1	8/3/2004
1,2-Dichlorobenzene	ND	0.41		mg/Kg-dry	1	8/3/2004
1,3-Dichlorobenzene	ND	0.41		mg/Kg-dry	1	8/3/2004
1,4-Dichlorobenzene	ND	0.41		mg/Kg-dry	1	8/3/2004
2, 2'-oxybis(1-Chloropropane	ND	0.41		mg/Kg-dry	1	8/3/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF04D-001
Lab Order:	0407459	**Tag Number:**	3'-4'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 9:40:00 AM
Lab ID:	0407459-004B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
2,4,5-Trichlorophenol	ND	0.81		mg/Kg-dry	1	8/3/2004
2,4,6-Trichlorophenol	ND	0.41		mg/Kg-dry	1	8/3/2004
2,4-Dichlorophenol	ND	0.41		mg/Kg-dry	1	8/3/2004
2,4-Dimethylphenol	ND	0.41		mg/Kg-dry	1	8/3/2004
2,4-Dinitrophenol	ND	2		mg/Kg-dry	1	8/3/2004
2,4-Dinitrotoluene	ND	0.41		mg/Kg-dry	1	8/3/2004
2,6-Dinitrotoluene	ND	0.41		mg/Kg-dry	1	8/3/2004
2-Chloronaphthalene	ND	0.41		mg/Kg-dry	1	8/3/2004
2-Chlorophenol	ND	0.41		mg/Kg-dry	1	8/3/2004
2-Methylnaphthalene	ND	0.41		mg/Kg-dry	1	8/3/2004
2-Methylphenol	ND	0.41		mg/Kg-dry	1	8/3/2004
2-Nitroaniline	ND	2		mg/Kg-dry	1	8/3/2004
2-Nitrophenol	ND	0.41		mg/Kg-dry	1	8/3/2004
3,3'-Dichlorobenzidine	ND	0.81		mg/Kg-dry	1	8/3/2004
3-Nitroaniline	ND	2		mg/Kg-dry	1	8/3/2004
4,6-Dinitro-2-methylphenol	ND	2		mg/Kg-dry	1	8/3/2004
4-Bromophenyl phenyl ether	ND	0.41		mg/Kg-dry	1	8/3/2004
4-Chloro-3-methylphenol	ND	0.41		mg/Kg-dry	1	8/3/2004
4-Chloroaniline	ND	0.41		mg/Kg-dry	1	8/3/2004
4-Chlorophenyl phenyl ether	ND	0.41		mg/Kg-dry	1	8/3/2004
4-Methylphenol	ND	0.41		mg/Kg-dry	1	8/3/2004
4-Nitroaniline	ND	2		mg/Kg-dry	1	8/3/2004
4-Nitrophenol	ND	2		mg/Kg-dry	1	8/3/2004
Aniline	ND	0.41		mg/Kg-dry	1	8/3/2004
Benzidine	ND	0.41		mg/Kg-dry	1	8/3/2004
Benzoic acid	ND	2		mg/Kg-dry	1	8/3/2004
Benzyl alcohol	ND	0.41		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethoxy)methane	ND	0.41		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethyl)ether	ND	0.41		mg/Kg-dry	1	8/3/2004
Bis(2-ethylhexyl)phthalate	ND	0.41		mg/Kg-dry	1	8/3/2004
Butyl benzyl phthalate	ND	0.41		mg/Kg-dry	1	8/3/2004
Carbazole	ND	0.41		mg/Kg-dry	1	8/3/2004
Di-n-butyl phthalate	ND	0.41		mg/Kg-dry	1	8/3/2004
Di-n-octyl phthalate	ND	0.41		mg/Kg-dry	1	8/3/2004
Dibenzofuran	ND	0.41		mg/Kg-dry	1	8/3/2004
Diethyl phthalate	ND	0.41		mg/Kg-dry	1	8/3/2004
Dimethyl phthalate	ND	0.41		mg/Kg-dry	1	8/3/2004
Hexachlorobenzene	ND	0.41		mg/Kg-dry	1	8/3/2004

Qualifiers:
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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF04D-001
Lab Order:	0407459	**Tag Number:**	3'-4'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 9:40:00 AM
Lab ID:	0407459-004B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
Hexachlorobutadiene	ND	0.41		mg/Kg-dry	1	8/3/2004
Hexachlorocyclopentadiene	ND	0.41		mg/Kg-dry	1	8/3/2004
Hexachloroethane	ND	0.41		mg/Kg-dry	1	8/3/2004
Isophorone	ND	0.41		mg/Kg-dry	1	8/3/2004
N-Nitrosodi-n-propylamine	ND	0.41		mg/Kg-dry	1	8/3/2004
N-Nitrosodimethylamine	ND	0.41		mg/Kg-dry	1	8/3/2004
N-Nitrosodiphenylamine	ND	0.41		mg/Kg-dry	1	8/3/2004
Nitrobenzene	ND	0.41		mg/Kg-dry	1	8/3/2004
Pentachlorophenol	ND	2		mg/Kg-dry	1	8/3/2004
Phenol	ND	0.41		mg/Kg-dry	1	8/3/2004
Pyridine	ND	0.41		mg/Kg-dry	1	8/3/2004
Cyanide, Total	**SW9012A**			Prep Date: **7/30/2004**		Analyst: **YZ**
Cyanide	ND	0.31		mg/Kg-dry	1	8/3/2004
Percent Moisture	**D2974**			Prep Date: **7/30/2004**		Analyst: **RW**
Percent Moisture	19.35	0.01	*	wt%	1	7/31/2004

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF04C-001
Lab Order:	0407459	**Tag Number:**	7'-8'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 10:15:00 AM
Lab ID:	0407459-005A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/29/2004**		Analyst: **MP**
1,1,1-Trichloroethane	0.65	0.45		mg/Kg-dry	50	8/3/2004
1,1,2,2-Tetrachloroethane	ND	0.45		mg/Kg-dry	50	8/3/2004
1,1,2-Trichloroethane	ND	0.45		mg/Kg-dry	50	8/3/2004
1,1-Dichloroethane	ND	0.45		mg/Kg-dry	50	8/3/2004
1,1-Dichloroethene	ND	0.45		mg/Kg-dry	50	8/3/2004
1,2-Dichloroethane	ND	0.45		mg/Kg-dry	50	8/3/2004
1,2-Dichloropropane	ND	0.45		mg/Kg-dry	50	8/3/2004
2-Butanone	ND	0.89		mg/Kg-dry	50	8/3/2004
2-Hexanone	ND	0.89		mg/Kg-dry	50	8/3/2004
4-Methyl-2-pentanone	ND	0.89		mg/Kg-dry	50	8/3/2004
Acetone	ND	2.2		mg/Kg-dry	50	8/3/2004
Benzene	0.58	0.45		mg/Kg-dry	50	8/3/2004
Bromodichloromethane	ND	0.45		mg/Kg-dry	50	8/3/2004
Bromoform	ND	0.45		mg/Kg-dry	50	8/3/2004
Bromomethane	ND	0.89		mg/Kg-dry	50	8/3/2004
Carbon disulfide	3.8	0.45		mg/Kg-dry	50	8/3/2004
Carbon tetrachloride	ND	0.45		mg/Kg-dry	50	8/3/2004
Chlorobenzene	ND	0.45		mg/Kg-dry	50	8/3/2004
Chloroethane	ND	0.89		mg/Kg-dry	50	8/3/2004
Chloroform	ND	0.45		mg/Kg-dry	50	8/3/2004
Chloromethane	ND	0.89		mg/Kg-dry	50	8/3/2004
cis-1,2-Dichloroethene	ND	0.45		mg/Kg-dry	50	8/3/2004
cis-1,3-Dichloropropene	ND	0.45		mg/Kg-dry	50	8/3/2004
Dibromochloromethane	ND	0.45		mg/Kg-dry	50	8/3/2004
Ethylbenzene	65	45		mg/Kg-dry	5000	8/3/2004
Methyl tert-butyl ether	ND	0.45		mg/Kg-dry	50	8/3/2004
Methylene chloride	ND	0.89		mg/Kg-dry	50	8/3/2004
Styrene	ND	0.45		mg/Kg-dry	50	8/3/2004
Tetrachloroethene	ND	0.45		mg/Kg-dry	50	8/3/2004
Toluene	3.3	0.45		mg/Kg-dry	50	8/3/2004
trans-1,2-Dichloroethene	ND	0.45		mg/Kg-dry	50	8/3/2004
trans-1,3-Dichloropropene	ND	0.45		mg/Kg-dry	50	8/3/2004
Trichloroethene	ND	0.45		mg/Kg-dry	50	8/3/2004
Vinyl chloride	ND	0.45		mg/Kg-dry	50	8/3/2004
Xylenes, Total	590	89		mg/Kg-dry	5000	8/3/2004
m,p-Xylene	230	45		mg/Kg-dry	5000	8/3/2004
o-Xylene	360	45		mg/Kg-dry	5000	8/3/2004

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client: Burns & McDonnell
Lab Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0407459-005B

Client Sample ID: HAS-CF04C-001
Tag Number: 7'-8'
Collection Date: 7/28/2004 10:15:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **8/2/2004**		Analyst: **JG**
Mercury	0.058	0.032		mg/Kg-dry	1	8/3/2004
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/30/2004**		Analyst: **BJA**
Antimony	180	3.8		mg/Kg-dry	10	7/30/2004
Arsenic	43	0.63		mg/Kg-dry	10	7/30/2004
Beryllium	ND	0.63		mg/Kg-dry	10	7/30/2004
Cadmium	ND	0.63		mg/Kg-dry	10	7/30/2004
Chromium	11	1.3		mg/Kg-dry	10	7/30/2004
Copper	570	6.3		mg/Kg-dry	20	8/2/2004
Lead	1200	0.63		mg/Kg-dry	10	7/30/2004
Nickel	12	2.5		mg/Kg-dry	20	8/2/2004
Selenium	1.4	1.3		mg/Kg-dry	10	7/30/2004
Silver	ND	1.3		mg/Kg-dry	10	7/30/2004
Thallium	ND	1.3		mg/Kg-dry	10	7/30/2004
Zinc	91	6.3		mg/Kg-dry	10	7/30/2004
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **VS**
Acenaphthene	0.37	0.34		mg/Kg-dry	1	8/4/2004
Acenaphthylene	1.2	0.34		mg/Kg-dry	1	8/4/2004
Anthracene	0.61	0.34		mg/Kg-dry	1	8/4/2004
Benz(a)anthracene	5	3.4		mg/Kg-dry	10	8/4/2004
Benzo(b)fluoranthene	4.4	3.4		mg/Kg-dry	10	8/4/2004
Benzo(k)fluoranthene	1.3	0.34		mg/Kg-dry	1	8/4/2004
Benzo(g,h,i)perylene	0.8	0.34		mg/Kg-dry	1	8/4/2004
Benzo(a)pyrene	0.37	0.34		mg/Kg-dry	1	8/4/2004
Chrysene	4.3	3.4		mg/Kg-dry	10	8/4/2004
Dibenz(a,h)anthracene	ND	0.34		mg/Kg-dry	1	8/4/2004
Fluoranthene	8	3.4		mg/Kg-dry	10	8/4/2004
Fluorene	0.91	0.34		mg/Kg-dry	1	8/4/2004
Indeno(1,2,3-cd)pyrene	0.8	0.34		mg/Kg-dry	1	8/4/2004
Naphthalene	1200	340		mg/Kg-dry	1000	8/4/2004
Phenanthrene	7.2	3.4		mg/Kg-dry	10	8/4/2004
Pyrene	11	3.4		mg/Kg-dry	10	8/4/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	4.4		mg/Kg-dry	1	8/4/2004
1,2-Dichlorobenzene	ND	4.4		mg/Kg-dry	1	8/4/2004
1,3-Dichlorobenzene	ND	4.4		mg/Kg-dry	1	8/4/2004
1,4-Dichlorobenzene	ND	4.4		mg/Kg-dry	1	8/4/2004
2, 2'-oxybis(1-Chloropropane	ND	4.4		mg/Kg-dry	1	8/4/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF04C-001
Lab Order:	0407459	**Tag Number:**	7'-8'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 10:15:00 AM
Lab ID:	0407459-005B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
2,4,5-Trichlorophenol	ND	8.9		mg/Kg-dry	1	8/4/2004
2,4,6-Trichlorophenol	ND	4.4		mg/Kg-dry	1	8/4/2004
2,4-Dichlorophenol	ND	4.4		mg/Kg-dry	1	8/4/2004
2,4-Dimethylphenol	ND	4.4		mg/Kg-dry	1	8/4/2004
2,4-Dinitrophenol	ND	22		mg/Kg-dry	1	8/4/2004
2,4-Dinitrotoluene	ND	4.4		mg/Kg-dry	1	8/4/2004
2,6-Dinitrotoluene	ND	4.4		mg/Kg-dry	1	8/4/2004
2-Chloronaphthalene	ND	4.4		mg/Kg-dry	1	8/4/2004
2-Chlorophenol	ND	4.4		mg/Kg-dry	1	8/4/2004
2-Methylnaphthalene	64	4.4		mg/Kg-dry	1	8/4/2004
2-Methylphenol	ND	4.4		mg/Kg-dry	1	8/4/2004
2-Nitroaniline	ND	22		mg/Kg-dry	1	8/4/2004
2-Nitrophenol	ND	4.4		mg/Kg-dry	1	8/4/2004
3,3'-Dichlorobenzidine	ND	8.9		mg/Kg-dry	1	8/4/2004
3-Nitroaniline	ND	22		mg/Kg-dry	1	8/4/2004
4,6-Dinitro-2-methylphenol	ND	22		mg/Kg-dry	1	8/4/2004
4-Bromophenyl phenyl ether	ND	4.4		mg/Kg-dry	1	8/4/2004
4-Chloro-3-methylphenol	ND	4.4		mg/Kg-dry	1	8/4/2004
4-Chloroaniline	ND	4.4		mg/Kg-dry	1	8/4/2004
4-Chlorophenyl phenyl ether	ND	4.4		mg/Kg-dry	1	8/4/2004
4-Methylphenol	ND	4.4		mg/Kg-dry	1	8/4/2004
4-Nitroaniline	ND	22		mg/Kg-dry	1	8/4/2004
4-Nitrophenol	ND	22		mg/Kg-dry	1	8/4/2004
Aniline	ND	4.4		mg/Kg-dry	1	8/4/2004
Benzidine	ND	4.4		mg/Kg-dry	1	8/4/2004
Benzoic acid	ND	22		mg/Kg-dry	1	8/4/2004
Benzyl alcohol	ND	4.4		mg/Kg-dry	1	8/4/2004
Bis(2-chloroethoxy)methane	ND	4.4		mg/Kg-dry	1	8/4/2004
Bis(2-chloroethyl)ether	ND	4.4		mg/Kg-dry	1	8/4/2004
Bis(2-ethylhexyl)phthalate	ND	4.4		mg/Kg-dry	1	8/4/2004
Butyl benzyl phthalate	ND	4.4		mg/Kg-dry	1	8/4/2004
Carbazole	ND	4.4		mg/Kg-dry	1	8/4/2004
Di-n-butyl phthalate	ND	4.4		mg/Kg-dry	1	8/4/2004
Di-n-octyl phthalate	ND	4.4		mg/Kg-dry	1	8/4/2004
Dibenzofuran	ND	4.4		mg/Kg-dry	1	8/4/2004
Diethyl phthalate	ND	4.4		mg/Kg-dry	1	8/4/2004
Dimethyl phthalate	ND	4.4		mg/Kg-dry	1	8/4/2004
Hexachlorobenzene	ND	4.4		mg/Kg-dry	1	8/4/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF04C-001
Lab Order:	0407459	**Tag Number:**	7'-8'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 10:15:00 AM
Lab ID:	0407459-005B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
Hexachlorobutadiene	ND	4.4		mg/Kg-dry	1	8/4/2004
Hexachlorocyclopentadiene	ND	4.4		mg/Kg-dry	1	8/4/2004
Hexachloroethane	ND	4.4		mg/Kg-dry	1	8/4/2004
Isophorone	ND	4.4		mg/Kg-dry	1	8/4/2004
N-Nitrosodi-n-propylamine	ND	4.4		mg/Kg-dry	1	8/4/2004
N-Nitrosodimethylamine	ND	4.4		mg/Kg-dry	1	8/4/2004
N-Nitrosodiphenylamine	ND	4.4		mg/Kg-dry	1	8/4/2004
Nitrobenzene	ND	4.4		mg/Kg-dry	1	8/4/2004
Pentachlorophenol	ND	22		mg/Kg-dry	1	8/4/2004
Phenol	ND	4.4		mg/Kg-dry	1	8/4/2004
Pyridine	ND	4.4		mg/Kg-dry	1	8/4/2004
Cyanide, Total	**SW9012A**			Prep Date: **7/30/2004**		Analyst: **YZ**
Cyanide	66	1.7		mg/Kg-dry	5	8/3/2004
Percent Moisture	**D2974**			Prep Date: **7/30/2004**		Analyst: **RW**
Percent Moisture	26.89	0.01	*	wt%	1	7/31/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF05C-001
Lab Order:	0407459	**Tag Number:**	9'-10'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 10:50:00 AM
Lab ID:	0407459-006A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/29/2004**		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.005		mg/Kg-dry	1	8/3/2004
1,1,2,2-Tetrachloroethane	ND	0.005		mg/Kg-dry	1	8/3/2004
1,1,2-Trichloroethane	ND	0.005		mg/Kg-dry	1	8/3/2004
1,1-Dichloroethane	ND	0.005		mg/Kg-dry	1	8/3/2004
1,1-Dichloroethene	ND	0.005		mg/Kg-dry	1	8/3/2004
1,2-Dichloroethane	ND	0.005		mg/Kg-dry	1	8/3/2004
1,2-Dichloropropane	ND	0.005		mg/Kg-dry	1	8/3/2004
2-Butanone	ND	0.01		mg/Kg-dry	1	8/3/2004
2-Hexanone	ND	0.01		mg/Kg-dry	1	8/3/2004
4-Methyl-2-pentanone	ND	0.01		mg/Kg-dry	1	8/3/2004
Acetone	ND	0.025		mg/Kg-dry	1	8/3/2004
Benzene	ND	0.005		mg/Kg-dry	1	8/3/2004
Bromodichloromethane	ND	0.005		mg/Kg-dry	1	8/3/2004
Bromoform	ND	0.005		mg/Kg-dry	1	8/3/2004
Bromomethane	ND	0.01		mg/Kg-dry	1	8/3/2004
Carbon disulfide	ND	0.005		mg/Kg-dry	1	8/3/2004
Carbon tetrachloride	ND	0.005		mg/Kg-dry	1	8/3/2004
Chlorobenzene	ND	0.005		mg/Kg-dry	1	8/3/2004
Chloroethane	ND	0.01		mg/Kg-dry	1	8/3/2004
Chloroform	ND	0.005		mg/Kg-dry	1	8/3/2004
Chloromethane	ND	0.01		mg/Kg-dry	1	8/3/2004
cis-1,2-Dichloroethene	ND	0.005		mg/Kg-dry	1	8/3/2004
cis-1,3-Dichloropropene	ND	0.005		mg/Kg-dry	1	8/3/2004
Dibromochloromethane	ND	0.005		mg/Kg-dry	1	8/3/2004
Ethylbenzene	ND	0.005		mg/Kg-dry	1	8/3/2004
Methyl tert-butyl ether	ND	0.005		mg/Kg-dry	1	8/3/2004
Methylene chloride	ND	0.01		mg/Kg-dry	1	8/3/2004
Styrene	ND	0.005		mg/Kg-dry	1	8/3/2004
Tetrachloroethene	ND	0.005		mg/Kg-dry	1	8/3/2004
Toluene	ND	0.005		mg/Kg-dry	1	8/3/2004
trans-1,2-Dichloroethene	ND	0.005		mg/Kg-dry	1	8/3/2004
trans-1,3-Dichloropropene	ND	0.005		mg/Kg-dry	1	8/3/2004
Trichloroethene	ND	0.005		mg/Kg-dry	1	8/3/2004
Vinyl chloride	ND	0.005		mg/Kg-dry	1	8/3/2004
Xylenes, Total	ND	0.01		mg/Kg-dry	1	8/3/2004
m,p-Xylene	ND	0.005		mg/Kg-dry	1	8/3/2004
o-Xylene	ND	0.005		mg/Kg-dry	1	8/3/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF05C-001
Lab Order:	0407459	**Tag Number:**	9'-10'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 10:50:00 AM
Lab ID:	0407459-006B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **8/2/2004**		Analyst: **JG**
Mercury	ND	0.029		mg/Kg-dry	1	8/3/2004
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/30/2004**		Analyst: **BJA**
Antimony	ND	3.5		mg/Kg-dry	10	7/30/2004
Arsenic	11	0.59		mg/Kg-dry	10	7/30/2004
Beryllium	ND	0.59		mg/Kg-dry	10	7/30/2004
Cadmium	ND	0.59		mg/Kg-dry	10	7/30/2004
Chromium	19	1.2		mg/Kg-dry	10	7/30/2004
Copper	34	2.9		mg/Kg-dry	10	8/2/2004
Lead	24	0.59		mg/Kg-dry	10	7/30/2004
Nickel	38	1.2		mg/Kg-dry	10	8/2/2004
Selenium	ND	1.2		mg/Kg-dry	10	7/30/2004
Silver	ND	1.2		mg/Kg-dry	10	7/30/2004
Thallium	ND	1.2		mg/Kg-dry	10	7/30/2004
Zinc	46	5.9		mg/Kg-dry	10	7/30/2004
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **VS**
Acenaphthene	ND	0.03		mg/Kg-dry	1	8/4/2004
Acenaphthylene	ND	0.03		mg/Kg-dry	1	8/4/2004
Anthracene	ND	0.03		mg/Kg-dry	1	8/4/2004
Benz(a)anthracene	ND	0.03		mg/Kg-dry	1	8/4/2004
Benzo(b)fluoranthene	ND	0.03		mg/Kg-dry	1	8/4/2004
Benzo(k)fluoranthene	ND	0.03		mg/Kg-dry	1	8/4/2004
Benzo(g,h,i)perylene	ND	0.03		mg/Kg-dry	1	8/4/2004
Benzo(a)pyrene	ND	0.03		mg/Kg-dry	1	8/4/2004
Chrysene	ND	0.03		mg/Kg-dry	1	8/4/2004
Dibenz(a,h)anthracene	ND	0.03		mg/Kg-dry	1	8/4/2004
Fluoranthene	ND	0.03		mg/Kg-dry	1	8/4/2004
Fluorene	ND	0.03		mg/Kg-dry	1	8/4/2004
Indeno(1,2,3-cd)pyrene	ND	0.03		mg/Kg-dry	1	8/4/2004
Naphthalene	ND	0.03		mg/Kg-dry	1	8/4/2004
Phenanthrene	ND	0.03		mg/Kg-dry	1	8/4/2004
Pyrene	ND	0.03		mg/Kg-dry	1	8/4/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.4		mg/Kg-dry	1	8/3/2004
1,2-Dichlorobenzene	ND	0.4		mg/Kg-dry	1	8/3/2004
1,3-Dichlorobenzene	ND	0.4		mg/Kg-dry	1	8/3/2004
1,4-Dichlorobenzene	ND	0.4		mg/Kg-dry	1	8/3/2004
2, 2'-oxybis(1-Chloropropane	ND	0.4		mg/Kg-dry	1	8/3/2004

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF05C-001
Lab Order:	0407459	**Tag Number:**	9'-10'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 10:50:00 AM
Lab ID:	0407459-006B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
2,4,5-Trichlorophenol	ND	0.79		mg/Kg-dry	1	8/3/2004
2,4,6-Trichlorophenol	ND	0.4		mg/Kg-dry	1	8/3/2004
2,4-Dichlorophenol	ND	0.4		mg/Kg-dry	1	8/3/2004
2,4-Dimethylphenol	ND	0.4		mg/Kg-dry	1	8/3/2004
2,4-Dinitrophenol	ND	1.9		mg/Kg-dry	1	8/3/2004
2,4-Dinitrotoluene	ND	0.4		mg/Kg-dry	1	8/3/2004
2,6-Dinitrotoluene	ND	0.4		mg/Kg-dry	1	8/3/2004
2-Chloronaphthalene	ND	0.4		mg/Kg-dry	1	8/3/2004
2-Chlorophenol	ND	0.4		mg/Kg-dry	1	8/3/2004
2-Methylnaphthalene	ND	0.4		mg/Kg-dry	1	8/3/2004
2-Methylphenol	ND	0.4		mg/Kg-dry	1	8/3/2004
2-Nitroaniline	ND	1.9		mg/Kg-dry	1	8/3/2004
2-Nitrophenol	ND	0.4		mg/Kg-dry	1	8/3/2004
3,3'-Dichlorobenzidine	ND	0.79		mg/Kg-dry	1	8/3/2004
3-Nitroaniline	ND	1.9		mg/Kg-dry	1	8/3/2004
4,6-Dinitro-2-methylphenol	ND	1.9		mg/Kg-dry	1	8/3/2004
4-Bromophenyl phenyl ether	ND	0.4		mg/Kg-dry	1	8/3/2004
4-Chloro-3-methylphenol	ND	0.4		mg/Kg-dry	1	8/3/2004
4-Chloroaniline	ND	0.4		mg/Kg-dry	1	8/3/2004
4-Chlorophenyl phenyl ether	ND	0.4		mg/Kg-dry	1	8/3/2004
4-Methylphenol	ND	0.4		mg/Kg-dry	1	8/3/2004
4-Nitroaniline	ND	1.9		mg/Kg-dry	1	8/3/2004
4-Nitrophenol	ND	1.9		mg/Kg-dry	1	8/3/2004
Aniline	ND	0.4		mg/Kg-dry	1	8/3/2004
Benzidine	ND	0.4		mg/Kg-dry	1	8/3/2004
Benzoic acid	ND	1.9		mg/Kg-dry	1	8/3/2004
Benzyl alcohol	ND	0.4		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethoxy)methane	ND	0.4		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethyl)ether	ND	0.4		mg/Kg-dry	1	8/3/2004
Bis(2-ethylhexyl)phthalate	ND	0.4		mg/Kg-dry	1	8/3/2004
Butyl benzyl phthalate	ND	0.4		mg/Kg-dry	1	8/3/2004
Carbazole	ND	0.4		mg/Kg-dry	1	8/3/2004
Di-n-butyl phthalate	ND	0.4		mg/Kg-dry	1	8/3/2004
Di-n-octyl phthalate	ND	0.4		mg/Kg-dry	1	8/3/2004
Dibenzofuran	ND	0.4		mg/Kg-dry	1	8/3/2004
Diethyl phthalate	ND	0.4		mg/Kg-dry	1	8/3/2004
Dimethyl phthalate	ND	0.4		mg/Kg-dry	1	8/3/2004
Hexachlorobenzene	ND	0.4		mg/Kg-dry	1	8/3/2004

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF05C-001
Lab Order:	0407459	**Tag Number:**	9'-10'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 10:50:00 AM
Lab ID:	0407459-006B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
Hexachlorobutadiene	ND	0.4		mg/Kg-dry	1	8/3/2004
Hexachlorocyclopentadiene	ND	0.4		mg/Kg-dry	1	8/3/2004
Hexachloroethane	ND	0.4		mg/Kg-dry	1	8/3/2004
Isophorone	ND	0.4		mg/Kg-dry	1	8/3/2004
N-Nitrosodi-n-propylamine	ND	0.4		mg/Kg-dry	1	8/3/2004
N-Nitrosodimethylamine	ND	0.4		mg/Kg-dry	1	8/3/2004
N-Nitrosodiphenylamine	ND	0.4		mg/Kg-dry	1	8/3/2004
Nitrobenzene	ND	0.4		mg/Kg-dry	1	8/3/2004
Pentachlorophenol	ND	1.9		mg/Kg-dry	1	8/3/2004
Phenol	ND	0.4		mg/Kg-dry	1	8/3/2004
Pyridine	ND	0.4		mg/Kg-dry	1	8/3/2004
Cyanide, Total	**SW9012A**			Prep Date: **7/30/2004**		Analyst: **YZ**
Cyanide	ND	0.3		mg/Kg-dry	1	8/3/2004
Percent Moisture	**D2974**			Prep Date: **7/30/2004**		Analyst: **RW**
Percent Moisture	17.30	0.01	*	wt%	1	7/31/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF06B-001
Lab Order:	0407459	**Tag Number:**	9'-10'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 12:40:00 PM
Lab ID:	0407459-007A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/29/2004**		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.37		mg/Kg-dry	50	8/3/2004
1,1,2,2-Tetrachloroethane	ND	0.37		mg/Kg-dry	50	8/3/2004
1,1,2-Trichloroethane	ND	0.37		mg/Kg-dry	50	8/3/2004
1,1-Dichloroethane	ND	0.37		mg/Kg-dry	50	8/3/2004
1,1-Dichloroethene	ND	0.37		mg/Kg-dry	50	8/3/2004
1,2-Dichloroethane	ND	0.37		mg/Kg-dry	50	8/3/2004
1,2-Dichloropropane	ND	0.37		mg/Kg-dry	50	8/3/2004
2-Butanone	ND	0.73		mg/Kg-dry	50	8/3/2004
2-Hexanone	ND	0.73		mg/Kg-dry	50	8/3/2004
4-Methyl-2-pentanone	ND	0.73		mg/Kg-dry	50	8/3/2004
Acetone	ND	1.8		mg/Kg-dry	50	8/3/2004
Benzene	ND	0.37		mg/Kg-dry	50	8/3/2004
Bromodichloromethane	ND	0.37		mg/Kg-dry	50	8/3/2004
Bromoform	ND	0.37		mg/Kg-dry	50	8/3/2004
Bromomethane	ND	0.73		mg/Kg-dry	50	8/3/2004
Carbon disulfide	ND	0.37		mg/Kg-dry	50	8/3/2004
Carbon tetrachloride	ND	0.37		mg/Kg-dry	50	8/3/2004
Chlorobenzene	ND	0.37		mg/Kg-dry	50	8/3/2004
Chloroethane	ND	0.73		mg/Kg-dry	50	8/3/2004
Chloroform	ND	0.37		mg/Kg-dry	50	8/3/2004
Chloromethane	ND	0.73		mg/Kg-dry	50	8/3/2004
cis-1,2-Dichloroethene	ND	0.37		mg/Kg-dry	50	8/3/2004
cis-1,3-Dichloropropene	ND	0.37		mg/Kg-dry	50	8/3/2004
Dibromochloromethane	ND	0.37		mg/Kg-dry	50	8/3/2004
Ethylbenzene	15	0.37		mg/Kg-dry	50	8/3/2004
Methyl tert-butyl ether	ND	0.37		mg/Kg-dry	50	8/3/2004
Methylene chloride	ND	0.73		mg/Kg-dry	50	8/3/2004
Styrene	ND	0.37		mg/Kg-dry	50	8/3/2004
Tetrachloroethene	ND	0.37		mg/Kg-dry	50	8/3/2004
Toluene	0.38	0.37		mg/Kg-dry	50	8/3/2004
trans-1,2-Dichloroethene	ND	0.37		mg/Kg-dry	50	8/3/2004
trans-1,3-Dichloropropene	ND	0.37		mg/Kg-dry	50	8/3/2004
Trichloroethene	ND	0.37		mg/Kg-dry	50	8/3/2004
Vinyl chloride	ND	0.37		mg/Kg-dry	50	8/3/2004
Xylenes, Total	8.7	0.73		mg/Kg-dry	50	8/3/2004
m,p-Xylene	4.5	0.37		mg/Kg-dry	50	8/3/2004
o-Xylene	4.2	0.37		mg/Kg-dry	50	8/3/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF06B-001
Lab Order:	0407459	**Tag Number:**	9'-10'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 12:40:00 PM
Lab ID:	0407459-007B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **8/2/2004**		Analyst: **JG**
Mercury	ND	0.033		mg/Kg-dry	1	8/3/2004
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/30/2004**		Analyst: **BJA**
Antimony	ND	3.8		mg/Kg-dry	10	7/30/2004
Arsenic	5.2	0.63		mg/Kg-dry	10	7/30/2004
Beryllium	ND	0.63		mg/Kg-dry	10	7/30/2004
Cadmium	ND	0.63		mg/Kg-dry	10	7/30/2004
Chromium	16	1.3		mg/Kg-dry	10	7/30/2004
Copper	19	3.2		mg/Kg-dry	10	8/2/2004
Lead	16	0.63		mg/Kg-dry	10	7/30/2004
Nickel	14	1.3		mg/Kg-dry	10	8/2/2004
Selenium	ND	1.3		mg/Kg-dry	10	7/30/2004
Silver	ND	1.3		mg/Kg-dry	10	7/30/2004
Thallium	ND	1.3		mg/Kg-dry	10	7/30/2004
Zinc	74	6.3		mg/Kg-dry	10	7/30/2004
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **VS**
Acenaphthene	0.13	0.034		mg/Kg-dry	1	8/4/2004
Acenaphthylene	0.3	0.034		mg/Kg-dry	1	8/4/2004
Anthracene	0.097	0.034		mg/Kg-dry	1	8/4/2004
Benz(a)anthracene	0.15	0.034		mg/Kg-dry	1	8/4/2004
Benzo(b)fluoranthene	0.085	0.034		mg/Kg-dry	1	8/4/2004
Benzo(k)fluoranthene	ND	0.034		mg/Kg-dry	1	8/4/2004
Benzo(g,h,i)perylene	ND	0.034		mg/Kg-dry	1	8/4/2004
Benzo(a)pyrene	0.049	0.034		mg/Kg-dry	1	8/4/2004
Chrysene	0.1	0.034		mg/Kg-dry	1	8/4/2004
Dibenz(a,h)anthracene	ND	0.034		mg/Kg-dry	1	8/4/2004
Fluoranthene	0.3	0.034		mg/Kg-dry	1	8/4/2004
Fluorene	0.32	0.034		mg/Kg-dry	1	8/4/2004
Indeno(1,2,3-cd)pyrene	ND	0.034		mg/Kg-dry	1	8/4/2004
Naphthalene	45	3.4		mg/Kg-dry	100	8/4/2004
Phenanthrene	0.58	0.34		mg/Kg-dry	10	8/3/2004
Pyrene	0.32	0.034		mg/Kg-dry	1	8/4/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.45		mg/Kg-dry	1	8/3/2004
1,2-Dichlorobenzene	ND	0.45		mg/Kg-dry	1	8/3/2004
1,3-Dichlorobenzene	ND	0.45		mg/Kg-dry	1	8/3/2004
1,4-Dichlorobenzene	ND	0.45		mg/Kg-dry	1	8/3/2004
2, 2'-oxybis(1-Chloropropane	ND	0.45		mg/Kg-dry	1	8/3/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF06B-001
Lab Order:	0407459	**Tag Number:**	9'-10'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 12:40:00 PM
Lab ID:	0407459-007B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
2,4,5-Trichlorophenol	ND	0.9		mg/Kg-dry	1	8/3/2004
2,4,6-Trichlorophenol	ND	0.45		mg/Kg-dry	1	8/3/2004
2,4-Dichlorophenol	ND	0.45		mg/Kg-dry	1	8/3/2004
2,4-Dimethylphenol	ND	0.45		mg/Kg-dry	1	8/3/2004
2,4-Dinitrophenol	ND	2.2		mg/Kg-dry	1	8/3/2004
2,4-Dinitrotoluene	ND	0.45		mg/Kg-dry	1	8/3/2004
2,6-Dinitrotoluene	ND	0.45		mg/Kg-dry	1	8/3/2004
2-Chloronaphthalene	ND	0.45		mg/Kg-dry	1	8/3/2004
2-Chlorophenol	ND	0.45		mg/Kg-dry	1	8/3/2004
2-Methylnaphthalene	4.7	0.45		mg/Kg-dry	1	8/3/2004
2-Methylphenol	ND	0.45		mg/Kg-dry	1	8/3/2004
2-Nitroaniline	ND	2.2		mg/Kg-dry	1	8/3/2004
2-Nitrophenol	ND	0.45		mg/Kg-dry	1	8/3/2004
3,3'-Dichlorobenzidine	ND	0.9		mg/Kg-dry	1	8/3/2004
3-Nitroaniline	ND	2.2		mg/Kg-dry	1	8/3/2004
4,6-Dinitro-2-methylphenol	ND	2.2		mg/Kg-dry	1	8/3/2004
4-Bromophenyl phenyl ether	ND	0.45		mg/Kg-dry	1	8/3/2004
4-Chloro-3-methylphenol	ND	0.45		mg/Kg-dry	1	8/3/2004
4-Chloroaniline	ND	0.45		mg/Kg-dry	1	8/3/2004
4-Chlorophenyl phenyl ether	ND	0.45		mg/Kg-dry	1	8/3/2004
4-Methylphenol	ND	0.45		mg/Kg-dry	1	8/3/2004
4-Nitroaniline	ND	2.2		mg/Kg-dry	1	8/3/2004
4-Nitrophenol	ND	2.2		mg/Kg-dry	1	8/3/2004
Aniline	ND	0.45		mg/Kg-dry	1	8/3/2004
Benzidine	ND	0.45		mg/Kg-dry	1	8/3/2004
Benzoic acid	ND	2.2		mg/Kg-dry	1	8/3/2004
Benzyl alcohol	ND	0.45		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethoxy)methane	ND	0.45		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethyl)ether	ND	0.45		mg/Kg-dry	1	8/3/2004
Bis(2-ethylhexyl)phthalate	ND	0.45		mg/Kg-dry	1	8/3/2004
Butyl benzyl phthalate	ND	0.45		mg/Kg-dry	1	8/3/2004
Carbazole	ND	0.45		mg/Kg-dry	1	8/3/2004
Di-n-butyl phthalate	ND	0.45		mg/Kg-dry	1	8/3/2004
Di-n-octyl phthalate	ND	0.45		mg/Kg-dry	1	8/3/2004
Dibenzofuran	ND	0.45		mg/Kg-dry	1	8/3/2004
Diethyl phthalate	ND	0.45		mg/Kg-dry	1	8/3/2004
Dimethyl phthalate	ND	0.45		mg/Kg-dry	1	8/3/2004
Hexachlorobenzene	ND	0.45		mg/Kg-dry	1	8/3/2004

Qualifiers:
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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF06B-001
Lab Order:	0407459	**Tag Number:**	9'-10'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 12:40:00 PM
Lab ID:	0407459-007B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
Hexachlorobutadiene	ND	0.45		mg/Kg-dry	1	8/3/2004
Hexachlorocyclopentadiene	ND	0.45		mg/Kg-dry	1	8/3/2004
Hexachloroethane	ND	0.45		mg/Kg-dry	1	8/3/2004
Isophorone	ND	0.45		mg/Kg-dry	1	8/3/2004
N-Nitrosodi-n-propylamine	ND	0.45		mg/Kg-dry	1	8/3/2004
N-Nitrosodimethylamine	ND	0.45		mg/Kg-dry	1	8/3/2004
N-Nitrosodiphenylamine	ND	0.45		mg/Kg-dry	1	8/3/2004
Nitrobenzene	ND	0.45		mg/Kg-dry	1	8/3/2004
Pentachlorophenol	ND	2.2		mg/Kg-dry	1	8/3/2004
Phenol	ND	0.45		mg/Kg-dry	1	8/3/2004
Pyridine	ND	0.45		mg/Kg-dry	1	8/3/2004
Cyanide, Total	**SW9012A**			Prep Date: **7/30/2004**		Analyst: **YZ**
Cyanide	0.98	0.34		mg/Kg-dry	1	8/3/2004
Percent Moisture	**D2974**			Prep Date: **7/30/2004**		Analyst: **RW**
Percent Moisture	26.65	0.01	*	wt%	1	7/31/2004

Qualifiers:
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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF07-001
Lab Order:	0407459	**Tag Number:**	8'-9'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 1:30:00 PM
Lab ID:	0407459-008A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/29/2004**		Analyst: **MP**
1,1,1-Trichloroethane	ND	0.26		mg/Kg-dry	50	8/3/2004
1,1,2,2-Tetrachloroethane	ND	0.26		mg/Kg-dry	50	8/3/2004
1,1,2-Trichloroethane	ND	0.26		mg/Kg-dry	50	8/3/2004
1,1-Dichloroethane	ND	0.26		mg/Kg-dry	50	8/3/2004
1,1-Dichloroethene	ND	0.26		mg/Kg-dry	50	8/3/2004
1,2-Dichloroethane	ND	0.26		mg/Kg-dry	50	8/3/2004
1,2-Dichloropropane	ND	0.26		mg/Kg-dry	50	8/3/2004
2-Butanone	ND	0.52		mg/Kg-dry	50	8/3/2004
2-Hexanone	ND	0.52		mg/Kg-dry	50	8/3/2004
4-Methyl-2-pentanone	ND	0.52		mg/Kg-dry	50	8/3/2004
Acetone	ND	1.3		mg/Kg-dry	50	8/3/2004
Benzene	ND	0.26		mg/Kg-dry	50	8/3/2004
Bromodichloromethane	ND	0.26		mg/Kg-dry	50	8/3/2004
Bromoform	ND	0.26		mg/Kg-dry	50	8/3/2004
Bromomethane	ND	0.52		mg/Kg-dry	50	8/3/2004
Carbon disulfide	ND	0.26		mg/Kg-dry	50	8/3/2004
Carbon tetrachloride	ND	0.26		mg/Kg-dry	50	8/3/2004
Chlorobenzene	ND	0.26		mg/Kg-dry	50	8/3/2004
Chloroethane	ND	0.52		mg/Kg-dry	50	8/3/2004
Chloroform	ND	0.26		mg/Kg-dry	50	8/3/2004
Chloromethane	ND	0.52		mg/Kg-dry	50	8/3/2004
cis-1,2-Dichloroethene	ND	0.26		mg/Kg-dry	50	8/3/2004
cis-1,3-Dichloropropene	ND	0.26		mg/Kg-dry	50	8/3/2004
Dibromochloromethane	ND	0.26		mg/Kg-dry	50	8/3/2004
Ethylbenzene	6.9	0.26		mg/Kg-dry	50	8/3/2004
Methyl tert-butyl ether	ND	0.26		mg/Kg-dry	50	8/3/2004
Methylene chloride	ND	0.52		mg/Kg-dry	50	8/3/2004
Styrene	ND	0.26		mg/Kg-dry	50	8/3/2004
Tetrachloroethene	ND	0.26		mg/Kg-dry	50	8/3/2004
Toluene	ND	0.26		mg/Kg-dry	50	8/3/2004
trans-1,2-Dichloroethene	ND	0.26		mg/Kg-dry	50	8/3/2004
trans-1,3-Dichloropropene	ND	0.26		mg/Kg-dry	50	8/3/2004
Trichloroethene	ND	0.26		mg/Kg-dry	50	8/3/2004
Vinyl chloride	ND	0.26		mg/Kg-dry	50	8/3/2004
Xylenes, Total	1.6	0.52		mg/Kg-dry	50	8/3/2004
m,p-Xylene	ND	0.26		mg/Kg-dry	50	8/3/2004
o-Xylene	1.5	0.26		mg/Kg-dry	50	8/3/2004

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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client: Burns & McDonnell
Lab Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0407459-008B

Client Sample ID: HAS-CF07-001
Tag Number: 8'-9'
Collection Date: 7/28/2004 1:30:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **8/2/2004**		Analyst: **JG**
Mercury	0.044	0.028		mg/Kg-dry	1	8/3/2004
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/30/2004**		Analyst: **BJA**
Antimony	ND	3.2		mg/Kg-dry	10	7/30/2004
Arsenic	5.3	0.54		mg/Kg-dry	10	7/30/2004
Beryllium	ND	0.54		mg/Kg-dry	10	7/30/2004
Cadmium	ND	0.54		mg/Kg-dry	10	7/30/2004
Chromium	10	1.1		mg/Kg-dry	10	7/30/2004
Copper	16	2.7		mg/Kg-dry	10	8/2/2004
Lead	21	0.54		mg/Kg-dry	10	7/30/2004
Nickel	15	1.1		mg/Kg-dry	10	8/2/2004
Selenium	ND	1.1		mg/Kg-dry	10	7/30/2004
Silver	ND	1.1		mg/Kg-dry	10	7/30/2004
Thallium	ND	1.1		mg/Kg-dry	10	7/30/2004
Zinc	28	5.4		mg/Kg-dry	10	7/30/2004
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **VS**
Acenaphthene	0.042	0.028		mg/Kg-dry	1	8/3/2004
Acenaphthylene	ND	0.028		mg/Kg-dry	1	8/3/2004
Anthracene	0.028	0.028		mg/Kg-dry	1	8/3/2004
Benz(a)anthracene	0.099	0.028		mg/Kg-dry	1	8/3/2004
Benzo(b)fluoranthene	0.11	0.028		mg/Kg-dry	1	8/3/2004
Benzo(k)fluoranthene	0.037	0.028		mg/Kg-dry	1	8/3/2004
Benzo(g,h,i)perylene	0.046	0.028		mg/Kg-dry	1	8/3/2004
Benzo(a)pyrene	0.079	0.028		mg/Kg-dry	1	8/3/2004
Chrysene	0.07	0.028		mg/Kg-dry	1	8/3/2004
Dibenz(a,h)anthracene	ND	0.028		mg/Kg-dry	1	8/3/2004
Fluoranthene	0.18	0.028		mg/Kg-dry	1	8/3/2004
Fluorene	ND	0.028		mg/Kg-dry	1	8/3/2004
Indeno(1,2,3-cd)pyrene	0.038	0.028		mg/Kg-dry	1	8/3/2004
Naphthalene	3.9	0.28		mg/Kg-dry	10	8/3/2004
Phenanthrene	0.063	0.028		mg/Kg-dry	1	8/3/2004
Pyrene	0.18	0.028		mg/Kg-dry	1	8/3/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.38		mg/Kg-dry	1	8/3/2004
1,2-Dichlorobenzene	ND	0.38		mg/Kg-dry	1	8/3/2004
1,3-Dichlorobenzene	ND	0.38		mg/Kg-dry	1	8/3/2004
1,4-Dichlorobenzene	ND	0.38		mg/Kg-dry	1	8/3/2004
2, 2'-oxybis(1-Chloropropane	ND	0.38		mg/Kg-dry	1	8/3/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF07-001
Lab Order:	0407459	**Tag Number:**	8'-9'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 1:30:00 PM
Lab ID:	0407459-008B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
2,4,5-Trichlorophenol	ND	0.75		mg/Kg-dry	1	8/3/2004
2,4,6-Trichlorophenol	ND	0.38		mg/Kg-dry	1	8/3/2004
2,4-Dichlorophenol	ND	0.38		mg/Kg-dry	1	8/3/2004
2,4-Dimethylphenol	ND	0.38		mg/Kg-dry	1	8/3/2004
2,4-Dinitrophenol	ND	1.8		mg/Kg-dry	1	8/3/2004
2,4-Dinitrotoluene	ND	0.38		mg/Kg-dry	1	8/3/2004
2,6-Dinitrotoluene	ND	0.38		mg/Kg-dry	1	8/3/2004
2-Chloronaphthalene	ND	0.38		mg/Kg-dry	1	8/3/2004
2-Chlorophenol	ND	0.38		mg/Kg-dry	1	8/3/2004
2-Methylnaphthalene	ND	0.38		mg/Kg-dry	1	8/3/2004
2-Methylphenol	ND	0.38		mg/Kg-dry	1	8/3/2004
2-Nitroaniline	ND	1.8		mg/Kg-dry	1	8/3/2004
2-Nitrophenol	ND	0.38		mg/Kg-dry	1	8/3/2004
3,3'-Dichlorobenzidine	ND	0.75		mg/Kg-dry	1	8/3/2004
3-Nitroaniline	ND	1.8		mg/Kg-dry	1	8/3/2004
4,6-Dinitro-2-methylphenol	ND	1.8		mg/Kg-dry	1	8/3/2004
4-Bromophenyl phenyl ether	ND	0.38		mg/Kg-dry	1	8/3/2004
4-Chloro-3-methylphenol	ND	0.38		mg/Kg-dry	1	8/3/2004
4-Chloroaniline	ND	0.38		mg/Kg-dry	1	8/3/2004
4-Chlorophenyl phenyl ether	ND	0.38		mg/Kg-dry	1	8/3/2004
4-Methylphenol	ND	0.38		mg/Kg-dry	1	8/3/2004
4-Nitroaniline	ND	1.8		mg/Kg-dry	1	8/3/2004
4-Nitrophenol	ND	1.8		mg/Kg-dry	1	8/3/2004
Aniline	ND	0.38		mg/Kg-dry	1	8/3/2004
Benzidine	ND	0.38		mg/Kg-dry	1	8/3/2004
Benzoic acid	ND	1.8		mg/Kg-dry	1	8/3/2004
Benzyl alcohol	ND	0.38		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethoxy)methane	ND	0.38		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethyl)ether	ND	0.38		mg/Kg-dry	1	8/3/2004
Bis(2-ethylhexyl)phthalate	ND	0.38		mg/Kg-dry	1	8/3/2004
Butyl benzyl phthalate	ND	0.38		mg/Kg-dry	1	8/3/2004
Carbazole	ND	0.38		mg/Kg-dry	1	8/3/2004
Di-n-butyl phthalate	ND	0.38		mg/Kg-dry	1	8/3/2004
Di-n-octyl phthalate	ND	0.38		mg/Kg-dry	1	8/3/2004
Dibenzofuran	ND	0.38		mg/Kg-dry	1	8/3/2004
Diethyl phthalate	ND	0.38		mg/Kg-dry	1	8/3/2004
Dimethyl phthalate	ND	0.38		mg/Kg-dry	1	8/3/2004
Hexachlorobenzene	ND	0.38		mg/Kg-dry	1	8/3/2004

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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF07-001
Lab Order:	0407459	**Tag Number:**	8'-9'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 1:30:00 PM
Lab ID:	0407459-008B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
Hexachlorobutadiene	ND	0.38		mg/Kg-dry	1	8/3/2004
Hexachlorocyclopentadiene	ND	0.38		mg/Kg-dry	1	8/3/2004
Hexachloroethane	ND	0.38		mg/Kg-dry	1	8/3/2004
Isophorone	ND	0.38		mg/Kg-dry	1	8/3/2004
N-Nitrosodi-n-propylamine	ND	0.38		mg/Kg-dry	1	8/3/2004
N-Nitrosodimethylamine	ND	0.38		mg/Kg-dry	1	8/3/2004
N-Nitrosodiphenylamine	ND	0.38		mg/Kg-dry	1	8/3/2004
Nitrobenzene	ND	0.38		mg/Kg-dry	1	8/3/2004
Pentachlorophenol	ND	1.8		mg/Kg-dry	1	8/3/2004
Phenol	ND	0.38		mg/Kg-dry	1	8/3/2004
Pyridine	ND	0.38		mg/Kg-dry	1	8/3/2004
Cyanide, Total	**SW9012A**			Prep Date: **7/30/2004**		Analyst: **YZ**
Cyanide	ND	0.29		mg/Kg-dry	1	8/3/2004
Percent Moisture	**D2974**			Prep Date: **7/30/2004**		Analyst: **RW**
Percent Moisture	12.64	0.01	*	wt%	1	7/31/2004

Qualifiers:
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Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF06E-001
Lab Order:	0407459	**Tag Number:**	5'-6'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 2:00:00 PM
Lab ID:	0407459-009A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Volatile Organic Compounds by GC/MS	**SW5035/8260B**			Prep Date: **7/29/2004**		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.46		mg/Kg-dry	50	8/3/2004
1,1,2,2-Tetrachloroethane	ND	0.46		mg/Kg-dry	50	8/3/2004
1,1,2-Trichloroethane	ND	0.46		mg/Kg-dry	50	8/3/2004
1,1-Dichloroethane	ND	0.46		mg/Kg-dry	50	8/3/2004
1,1-Dichloroethene	ND	0.46		mg/Kg-dry	50	8/3/2004
1,2-Dichloroethane	ND	0.46		mg/Kg-dry	50	8/3/2004
1,2-Dichloropropane	ND	0.46		mg/Kg-dry	50	8/3/2004
2-Butanone	ND	0.93		mg/Kg-dry	50	8/3/2004
2-Hexanone	ND	0.93		mg/Kg-dry	50	8/3/2004
4-Methyl-2-pentanone	ND	0.93		mg/Kg-dry	50	8/3/2004
Acetone	ND	2.3		mg/Kg-dry	50	8/3/2004
Benzene	ND	0.46		mg/Kg-dry	50	8/3/2004
Bromodichloromethane	ND	0.46		mg/Kg-dry	50	8/3/2004
Bromoform	ND	0.46		mg/Kg-dry	50	8/3/2004
Bromomethane	ND	0.93		mg/Kg-dry	50	8/3/2004
Carbon disulfide	ND	0.46		mg/Kg-dry	50	8/3/2004
Carbon tetrachloride	ND	0.46		mg/Kg-dry	50	8/3/2004
Chlorobenzene	ND	0.46		mg/Kg-dry	50	8/3/2004
Chloroethane	ND	0.93		mg/Kg-dry	50	8/3/2004
Chloroform	ND	0.46		mg/Kg-dry	50	8/3/2004
Chloromethane	ND	0.93		mg/Kg-dry	50	8/3/2004
cis-1,2-Dichloroethene	ND	0.46		mg/Kg-dry	50	8/3/2004
cis-1,3-Dichloropropene	ND	0.46		mg/Kg-dry	50	8/3/2004
Dibromochloromethane	ND	0.46		mg/Kg-dry	50	8/3/2004
Ethylbenzene	0.64	0.46		mg/Kg-dry	50	8/3/2004
Methyl tert-butyl ether	ND	0.46		mg/Kg-dry	50	8/3/2004
Methylene chloride	ND	0.93		mg/Kg-dry	50	8/3/2004
Styrene	ND	0.46		mg/Kg-dry	50	8/3/2004
Tetrachloroethene	ND	0.46		mg/Kg-dry	50	8/3/2004
Toluene	1.4	0.46		mg/Kg-dry	50	8/3/2004
trans-1,2-Dichloroethene	ND	0.46		mg/Kg-dry	50	8/3/2004
trans-1,3-Dichloropropene	ND	0.46		mg/Kg-dry	50	8/3/2004
Trichloroethene	ND	0.46		mg/Kg-dry	50	8/3/2004
Vinyl chloride	ND	0.46		mg/Kg-dry	50	8/3/2004
Xylenes, Total	16	0.93		mg/Kg-dry	50	8/3/2004
m,p-Xylene	9.9	0.46		mg/Kg-dry	50	8/3/2004
o-Xylene	6.3	0.46		mg/Kg-dry	50	8/3/2004

Qualifiers:
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Report Date: August 04, 2004
Print Date: September 04, 2004

Client: Burns & McDonnell
Lab Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab ID: 0407459-009B

Client Sample ID: HAS-CF06E-001
Tag Number: 5'-6'
Collection Date: 7/28/2004 2:00:00 PM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Mercury	**SW7471A**			Prep Date: **8/2/2004**		Analyst: **JG**
Mercury	0.49	0.033		mg/Kg-dry	1	8/3/2004
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/30/2004**		Analyst: **BJA**
Antimony	ND	3.9		mg/Kg-dry	10	7/30/2004
Arsenic	16	0.65		mg/Kg-dry	10	7/30/2004
Beryllium	1.5	0.65		mg/Kg-dry	10	7/30/2004
Cadmium	1.5	0.65		mg/Kg-dry	10	7/30/2004
Chromium	20	1.3		mg/Kg-dry	10	7/30/2004
Copper	140	3.3		mg/Kg-dry	10	8/2/2004
Lead	490	0.65		mg/Kg-dry	10	7/30/2004
Nickel	34	1.3		mg/Kg-dry	10	8/2/2004
Selenium	1.6	1.3		mg/Kg-dry	10	7/30/2004
Silver	ND	1.3		mg/Kg-dry	10	7/30/2004
Thallium	ND	1.3		mg/Kg-dry	10	7/30/2004
Zinc	370	6.5		mg/Kg-dry	10	7/30/2004
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **VS**
Acenaphthene	ND	0.033		mg/Kg-dry	1	8/4/2004
Acenaphthylene	0.092	0.033		mg/Kg-dry	1	8/4/2004
Anthracene	0.055	0.033		mg/Kg-dry	1	8/4/2004
Benz(a)anthracene	0.16	0.033		mg/Kg-dry	1	8/4/2004
Benzo(b)fluoranthene	0.45	0.33		mg/Kg-dry	10	8/4/2004
Benzo(k)fluoranthene	0.063	0.033		mg/Kg-dry	1	8/4/2004
Benzo(g,h,i)perylene	0.1	0.033		mg/Kg-dry	1	8/4/2004
Benzo(a)pyrene	0.18	0.033		mg/Kg-dry	1	8/4/2004
Chrysene	0.29	0.033		mg/Kg-dry	1	8/4/2004
Dibenz(a,h)anthracene	ND	0.033		mg/Kg-dry	1	8/4/2004
Fluoranthene	0.22	0.033		mg/Kg-dry	1	8/4/2004
Fluorene	ND	0.033		mg/Kg-dry	1	8/4/2004
Indeno(1,2,3-cd)pyrene	0.091	0.033		mg/Kg-dry	1	8/4/2004
Naphthalene	11	3.3		mg/Kg-dry	100	8/4/2004
Phenanthrene	0.22	0.033		mg/Kg-dry	1	8/4/2004
Pyrene	0.46	0.33		mg/Kg-dry	10	8/4/2004
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
1,2,4-Trichlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
1,2-Dichlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
1,3-Dichlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
1,4-Dichlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
2, 2'-oxybis(1-Chloropropane	ND	0.44		mg/Kg-dry	1	8/3/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF06E-001
Lab Order:	0407459	**Tag Number:**	5'-6'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 2:00:00 PM
Lab ID:	0407459-009B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
2,4,5-Trichlorophenol	ND	0.87		mg/Kg-dry	1	8/3/2004
2,4,6-Trichlorophenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2,4-Dichlorophenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2,4-Dimethylphenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2,4-Dinitrophenol	ND	2.1		mg/Kg-dry	1	8/3/2004
2,4-Dinitrotoluene	ND	0.44		mg/Kg-dry	1	8/3/2004
2,6-Dinitrotoluene	ND	0.44		mg/Kg-dry	1	8/3/2004
2-Chloronaphthalene	ND	0.44		mg/Kg-dry	1	8/3/2004
2-Chlorophenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2-Methylnaphthalene	2.6	0.44		mg/Kg-dry	1	8/3/2004
2-Methylphenol	ND	0.44		mg/Kg-dry	1	8/3/2004
2-Nitroaniline	ND	2.1		mg/Kg-dry	1	8/3/2004
2-Nitrophenol	ND	0.44		mg/Kg-dry	1	8/3/2004
3,3'-Dichlorobenzidine	ND	0.87		mg/Kg-dry	1	8/3/2004
3-Nitroaniline	ND	2.1		mg/Kg-dry	1	8/3/2004
4,6-Dinitro-2-methylphenol	ND	2.1		mg/Kg-dry	1	8/3/2004
4-Bromophenyl phenyl ether	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Chloro-3-methylphenol	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Chloroaniline	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Chlorophenyl phenyl ether	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Methylphenol	ND	0.44		mg/Kg-dry	1	8/3/2004
4-Nitroaniline	ND	2.1		mg/Kg-dry	1	8/3/2004
4-Nitrophenol	ND	2.1		mg/Kg-dry	1	8/3/2004
Aniline	ND	0.44		mg/Kg-dry	1	8/3/2004
Benzidine	ND	0.44		mg/Kg-dry	1	8/3/2004
Benzoic acid	6.2	2.1		mg/Kg-dry	1	8/3/2004
Benzyl alcohol	ND	0.44		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethoxy)methane	ND	0.44		mg/Kg-dry	1	8/3/2004
Bis(2-chloroethyl)ether	ND	0.44		mg/Kg-dry	1	8/3/2004
Bis(2-ethylhexyl)phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Butyl benzyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Carbazole	ND	0.44		mg/Kg-dry	1	8/3/2004
Di-n-butyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Di-n-octyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Dibenzofuran	ND	0.44		mg/Kg-dry	1	8/3/2004
Diethyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Dimethyl phthalate	ND	0.44		mg/Kg-dry	1	8/3/2004
Hexachlorobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004

Qualifiers:
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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 04, 2004
Print Date: September 04, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF06E-001
Lab Order:	0407459	**Tag Number:**	5'-6'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 2:00:00 PM
Lab ID:	0407459-009B	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Semivolatile Organic Compounds by GC/MS	**SW8270C (SW3550B)**			Prep Date: **8/2/2004**		Analyst: **JF**
Hexachlorobutadiene	ND	0.44		mg/Kg-dry	1	8/3/2004
Hexachlorocyclopentadiene	ND	0.44		mg/Kg-dry	1	8/3/2004
Hexachloroethane	ND	0.44		mg/Kg-dry	1	8/3/2004
Isophorone	ND	0.44		mg/Kg-dry	1	8/3/2004
N-Nitrosodi-n-propylamine	ND	0.44		mg/Kg-dry	1	8/3/2004
N-Nitrosodimethylamine	ND	0.44		mg/Kg-dry	1	8/3/2004
N-Nitrosodiphenylamine	ND	0.44		mg/Kg-dry	1	8/3/2004
Nitrobenzene	ND	0.44		mg/Kg-dry	1	8/3/2004
Pentachlorophenol	ND	2.1		mg/Kg-dry	1	8/3/2004
Phenol	ND	0.44		mg/Kg-dry	1	8/3/2004
Pyridine	ND	0.44		mg/Kg-dry	1	8/3/2004
Cyanide, Total	**SW9012A**			Prep Date: **7/30/2004**		Analyst: **YZ**
Cyanide	2.5	0.34		mg/Kg-dry	1	8/3/2004
Percent Moisture	**D2974**			Prep Date: **7/30/2004**		Analyst: **RW**
Percent Moisture	25.61	0.01	*	wt%	1	7/31/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: (312) 563-0371

Document Control No: HAS-024-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: TCL VOCs	TCL SVOCs	PAHs (8270 SIM)	PRIORITY POLLUTANT METALS	TOTAL CYANIDE			Remarks
HAS	CF03	001	–	–	7	8	7/28/04	0800		X		5	X	X	X	X	X			001
HAS	CF03	002	–	–	6	7	7/28/04	0820		X		5	X	X	X	X	X			002
HAS	CF02	001	–	–	6	7	7/28/04	0830		X		5	X	X	X	X	X			003
HAS	CF04D	001	–	–	3	4	7/28/04	0940		X		5	X	X	X	X	X			004
HAS	CF04C	001	–	–	7	8	7/28/04	1015		X		5	X	X	X	X	X			005
HAS	CF05C	001	–	–	9	10	7/28/04	1050		X		5	X	X	X	X	X			006
HAS	CF06B	001	–	–	9	10	7/28/04	1240		X		5	X	X	X	X	X			007
HAS	CF07	001	–	–	8	9	7/28/04	1330		X		5	X	X	X	X	X			008
HAS	CF06E	001	–	–	5	6	7/28/04	~~1400~~ 1400 DUS		X		5	X	X	X	X	X			009

7/28/04

PLEASE FIND: 1 COOLER

Sampler (signature): [signature]
Sampler (signature):
Custody Seal Number: 072804STAT-001, 072804STAT-002
Special Instructions: 5 DAY TAT!

Relinquished By (signature): 1. [signature] Date/Time: 7/28/04 1545
Received By (signature): [signature] Date/Time: 7/28/04 16:55
Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt: 6

Relinquished By (signature): 2. Date/Time:
Received By (signature): Date/Time:
Laboratory Comments: 0407459

061301 Form WCD-KC1-CHI

STAT Analysis Corporation

Sample Receipt Checklist

Date and Time Received: 07/28/2004

Client Name B&M

Received by JC

Work Order Numbe 0407459

Checklist completed b [signature] 7/28/04 (Signature, Date)

Reviewed by CC 8/4/04 (Initials, Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 4 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☐	No ☐	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

STAT Analysis Corporation

Date: 04-Aug-04

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW5035/8260B **Matrix:** S

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	BR4FBZ	BZMED8	DBFM	DCA12D4				
VBLK080304-2	107	102	100	98.3				
VLCS080304-2	102	98.8	101	94.5				
VLCSD080304-2	101	101	104	99.7				
0407459-001A	100	98.7	102	95.8				
0407459-003A	104	99.9	107	97.7				
0407459-006A	90.4	97.4	108	103				
0407459-009A:50	104	102	103	99.4				
0407459-002A	88.2	96.0	97.4	89.4				
0407459-007A:50	93.0	100	103	93.1				
0407459-004A	81.5	95.6	107	99.4				
VBLK080404-2	110	100	107	97.4				
VLCS080404-2	103	101	102	95.3				
VLCSD080404-2	103	98.9	102	98.2				
0407459-004AR:50	106	103	102	94.7				
0407459-004AR	91.1	96.9	107	100				
VBLK080304-3	88.3	103	103	107				
VLCS080304-3	99.3	104	104	106				
0407459-004A:50	92.4	101	102	104				
0407459-008A:50	96.7	105	95.8	107				
0407459-004AMS	105	100	91.3	96.8				
0407459-004AMSD	107	99.3	88.8	96.3				
0407459-005A:50	108	99.7	90.4	102				

Acronym		Surrogate	QC Limits
BR4FBZ	=	4-Bromofluorobenzene	63-110
BZMED8	=	Toluene-d8	85-110
DBFM	=	Dibromofluoromethane	83-119
DCA12D4	=	1,2-Dichloroethane-d4	84-129

*** Surrogate recovery outside acceptance limits**

1

Date: 04-Aug-04

STAT Analysis Corporation

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8270C **Matrix:** S

Sample ID	CLPH2D4	DCBZ12D4	NO2BZD5	PH246BR	PH2F	PHD5	PHEN2F	PHEND14
MB-10277-SVOC	62.9	62.4	70.0	80.1	58.6	68.0	67.1	73.4
0408006-001BMS	61.0	61.9	81.5	78.0	55.6	65.0	66.5	67.5
0407459-006B	60.5	57.9	63.5	71.5	55.9	64.3	61.0	62.8
0407459-001B	61.2	59.1	65.1	79.8	56.1	64.9	62.4	68.7
0408006-001BMSD	60.4	85.1	76.0	74.6	56.6	63.4	64.8	67.3
0407459-008B	85.7	80.3	86.6	102	82.5	91.6	79.5	79.5
0407459-004B	59.6	54.6	61.3	78.6	52.1	63.3	58.8	75.3
0407459-007B	42.7	39.5	50.4	90.8	36.9	48.3	51.2	66.6
0407459-009B	60.7	56.0	65.0	91.6	51.8	61.2	61.9	80.4
0407459-003B	53.0	47.4	55.6	100	44.6	58.1	55.7	68.4
LCS-10277-SVOC	57.7	55.8	63.2	70.1	52.4	61.7	60.6	60.7
0407459-005B	40.6	30.8	59.0	87.4	80.8	74.7	55.0	63.2
0407459-002B	61.5	57.2	70.2	98.5	49.2	67.5	65.6	58.0

Acronym		Surrogate	QC Limits
CLPH2D4	=	2-Chlorophenol-d4	20-130
DCBZ12D4	=	1,2-Dichlorobenzene-d4	20-130
NO2BZD5	=	Nitrobenzene-d5	23-120
PH246BR	=	2,4,6-Tribromophenol	19-122
PH2F	=	2-Fluorophenol	25-121
PHD5	=	Phenol-d5	24-113
PHEN2F	=	2-Fluorobiphenyl	30-115
PHEND14	=	4-Terphenyl-d14	18-137

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **8/2/2004 1:23:31 P**
Prep End Date: **8/3/2004 12:59:46 P**

Prep Factor Units: **mL / Kg**

Prep Batch **10277** Prep Code: **3550_SVOC** Technician: **CDM**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0407459-001B	Soil		0.03049	0	0	1	32.798	8/2/2004	8/2/2004
0407459-002B	Soil		0.03041	0	0	1	32.884	8/2/2004	8/3/2004
0407459-003B	Soil		0.03022	0	0	1	33.091	8/2/2004	8/3/2004
0407459-004B	Soil		0.03018	0	0	1	33.135	8/2/2004	8/3/2004
0407459-005B	Soil		0.03051	0	0	10	327.761	8/2/2004	8/3/2004
0407459-006B	Soil		0.03027	0	0	1	33.036	8/2/2004	8/2/2004
0407459-007B	Soil		0.03015	0	0	1	33.167	8/2/2004	8/3/2004
0407459-008B	Soil		0.03021	0	0	1	33.102	8/2/2004	8/2/2004
0407459-009B	Soil		0.03049	0	0	1	32.798	8/2/2004	8/3/2004
0408006-001B	Soil		0.03015	0	0	1	33.167	8/2/2004	8/2/2004
0408006-001BMS	Soil		0.03026	0	0	1	33.047	8/2/2004	8/2/2004
0408006-001BMSD	Soil		0.03025	0	0	1	33.058	8/2/2004	8/2/2004
LCS-10277-SVOC			0.03	0	0	1	33.333	8/2/2004	8/2/2004
MB-10277-SVOC			0.03	0	0	1	33.333	8/2/2004	8/2/2004

STAT Analysis Corporation

Date: 04-Aug-04

QC SUMMARY REPORT
SURROGATE RECOVERIES

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Test No: SW8270C-SIM **Matrix:** S

Sample ID	DCBZ12D4	NO2BZD5	PHEN2F	PHEND14				
0407459-002B	52.8	61.0	47.7	45.8				
0407459-003B	47.9	59.6	46.9	55.2				
0407459-005B	34.8	61.4	40.6	67.6				
MB-10278-PNA	98.8	110	110	133				
LCS-10278-PNA	88.0	118	112	124				
0407459-008B	58.9	84.4	68.2	59.2				
0407459-006B	57.9	81.5	68.6	61.2				
0407459-001B	60.2	84.7	67.4	62.2				
0407459-009B	52.4	65.0	45.8	48.6				
0407459-007B	29.5	46.9	93.1	51.3				
0407459-004B	55.8	81.1	61.7	62.4				

Acronym		Surrogate	QC Limits
DCBZ12D4	=	1,2-Dichlorobenzene-d4	20-130
NO2BZD5	=	Nitrobenzene-d5	23-120
PHEN2F	=	2-Fluorobiphenyl	30-115
PHEND14	=	4-Terphenyl-d14	18-137

*** Surrogate recovery outside acceptance limits**

1

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **8/2/2004 1:24:15 P**
Prep End Date: **8/3/2004 12:59:30 P**

Prep Factor Units: **mL / Kg**

Prep Batch **10278** Prep Code: **3550_PNA** Technician: **CDM**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0407311-001B	Soil		0.03082	0	0	1	32.446	8/2/2004	8/2/2004
0407311-002B	Soil		0.03014	0	0	1	33.179	8/2/2004	8/2/2004
0407311-003B	Soil		0.03076	0	0	1	32.510	8/2/2004	8/2/2004
0407311-004B	Soil		0.03026	0	0	1	33.047	8/2/2004	8/2/2004
0407311-005B	Soil		0.03038	0	0	1	32.916	8/2/2004	8/2/2004
0407459-001B	Soil		0.03049	0	0	1	32.798	8/2/2004	8/2/2004
0407459-002B	Soil		0.03041	0	0	1	32.884	8/2/2004	8/3/2004
0407459-003B	Soil		0.03022	0	0	1	33.091	8/2/2004	8/3/2004
0407459-004B	Soil		0.03018	0	0	1	33.135	8/2/2004	8/3/2004
0407459-005B	Soil		0.03051	0	0	10	327.761	8/2/2004	8/3/2004
0407459-006B	Soil		0.03027	0	0	1	33.036	8/2/2004	8/2/2004
0407459-007B	Soil		0.03015	0	0	1	33.167	8/2/2004	8/3/2004
0407459-008B	Soil		0.03021	0	0	1	33.102	8/2/2004	8/2/2004
0407459-009B	Soil		0.03049	0	0	1	32.798	8/2/2004	8/3/2004
0407486-001B	Soil		0.03068	0	0	1	32.595	8/2/2004	8/2/2004
0407486-002B	Soil		0.03031	0	0	1	32.992	8/2/2004	8/2/2004
0407486-002BMS	Soil		0.03056	0	0	1	32.723	8/2/2004	8/2/2004
0407486-002BMSD	Soil		0.03057	0	0	1	32.712	8/2/2004	8/2/2004
0407486-003B	Soil		0.03029	0	0	1	33.014	8/2/2004	8/2/2004
0407505-001B	Soil		0.03029	0	0	1	33.014	8/2/2004	8/2/2004
0407505-002B	Soil		0.03059	0	0	1	32.690	8/2/2004	8/2/2004
0408006-001B	Soil		0.03015	0	0	1	33.167	8/2/2004	8/2/2004
LCS-10278-PNA			0.03	0	0	1	33.333	8/2/2004	8/2/2004
MB-10278-PNA			0.03	0	0	1	33.333	8/2/2004	8/2/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: 7/30/2004 11:00:00
Prep End Date: 7/30/2004 2:30:00 P

Prep Factor Units: mL / g

Prep Batch 10259 Prep Code: M_S_PREP Technician: DGI

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0407453-001B	Soil		1.052	0	0	50	47.529	7/30/2004	7/30/2004
0407453-002B	Soil		1.018	0	0	50	49.116	7/30/2004	7/30/2004
0407453-003B	Soil		1.088	0	0	50	45.956	7/30/2004	7/30/2004
0407453-004B	Soil		1.052	0	0	50	47.529	7/30/2004	7/30/2004
0407453-005B	Soil		1.064	0	0	50	46.992	7/30/2004	7/30/2004
0407455-001B	Soil		1.052	0	0	50	47.529	7/30/2004	7/30/2004
0407455-002B	Soil		1.087	0	0	50	45.998	7/30/2004	7/30/2004
0407455-002BMS	Soil		1.069	0	0	50	46.773	7/30/2004	7/30/2004
0407455-002BMSD	Soil		1.023	0	0	50	48.876	7/30/2004	7/30/2004
0407455-003B	Soil		1.049	0	0	50	47.664	7/30/2004	7/30/2004
0407455-004B	Soil		1.078	0	0	50	46.382	7/30/2004	7/30/2004
0407455-005B	Soil		1.025	0	0	50	48.780	7/30/2004	7/30/2004
0407455-006B	Soil		1.018	0	0	50	49.116	7/30/2004	7/30/2004
0407459-001B	Soil		1.058	0	0	50	47.259	7/30/2004	7/30/2004
0407459-002B	Soil		1.065	0	0	50	46.948	7/30/2004	7/30/2004
0407459-003B	Soil		1.042	0	0	50	47.985	7/30/2004	7/30/2004
0407459-004B	Soil		1.062	0	0	50	47.081	7/30/2004	7/30/2004
0407459-005B	Soil		1.088	0	0	50	45.956	7/30/2004	7/30/2004
0407459-006B	Soil		1.028	0	0	50	48.638	7/30/2004	7/30/2004
0407459-007B	Soil		1.078	0	0	50	46.382	7/30/2004	7/30/2004
0407459-008B	Soil		1.065	0	0	50	46.948	7/30/2004	7/30/2004
0407459-009B	Soil		1.032	0	0	50	48.450	7/30/2004	7/30/2004
ILCSS1 7/30/04			1	0	0	50	50.000	7/30/2004	7/30/2004
IMBS1 7/30/04			1	0	0	50	50.000	7/30/2004	7/30/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **8/2/2004 11:13:00 A**
Prep End Date: **8/2/2004 11:55:00 A**

Prep Factor Units: **mL / g**

Prep Batch **10274** Prep Code: **M_HG_S_PRE** Technician: **PMS**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0407453-001B	Soil		0.3	0	0	30	100.000	8/2/2004	8/2/2004
0407453-002B	Soil		0.324	0	0	30	92.593	8/2/2004	8/2/2004
0407453-003B	Soil		0.319	0	0	30	94.044	8/2/2004	8/2/2004
0407453-004B	Soil		0.306	0	0	30	98.039	8/2/2004	8/2/2004
0407453-005B	Soil		0.31	0	0	30	96.774	8/2/2004	8/2/2004
0407455-001B	Soil		0.311	0	0	30	96.463	8/2/2004	8/2/2004
0407455-001BMS	Soil		0.308	0	0	30	97.403	8/2/2004	8/2/2004
0407455-001BMSD	Soil		0.303	0	0	30	99.010	8/2/2004	8/2/2004
0407455-002B	Soil		0.301	0	0	30	99.668	8/2/2004	8/2/2004
0407455-003B	Soil		0.321	0	0	30	93.458	8/2/2004	8/2/2004
0407455-004B	Soil		0.32	0	0	30	93.750	8/2/2004	8/2/2004
0407455-005B	Soil		0.323	0	0	30	92.879	8/2/2004	8/2/2004
0407455-006B	Soil		0.318	0	0	30	94.340	8/2/2004	8/2/2004
0407459-001B	Soil		0.31	0	0	30	96.774	8/2/2004	8/2/2004
0407459-002B	Soil		0.302	0	0	30	99.338	8/2/2004	8/2/2004
0407459-003B	Soil		0.305	0	0	30	98.361	8/2/2004	8/2/2004
0407459-004B	Soil		0.313	0	0	30	95.847	8/2/2004	8/2/2004
0407459-005B	Soil		0.32	0	0	30	93.750	8/2/2004	8/2/2004
0407459-006B	Soil		0.316	0	0	30	94.937	8/2/2004	8/2/2004
0407459-007B	Soil		0.312	0	0	30	96.154	8/2/2004	8/2/2004
0407459-008B	Soil		0.304	0	0	30	98.684	8/2/2004	8/2/2004
0407459-009B	Soil		0.309	0	0	30	97.087	8/2/2004	8/2/2004
HGLCSS1 8/2/04			0.3	0	0	30	100.000	8/2/2004	8/2/2004
HGMBS1 8/2/04			0.3	0	0	30	100.000	8/2/2004	8/2/2004
HGSLCS1 8/2/04			0.303	0	0	30	99.010	8/2/2004	8/2/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **7/30/2004 1:00:00 P**
Prep End Date: **7/30/2004 2:45:00 P**

Prep Factor Units: **mL / g**

Prep Batch **10294** Prep Code: **TCNPREP_S** Technician: **YZ**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
TCNMBS1 073004			1	0	0	50	50.000	7/30/2004	7/30/2004
TCNLCSS1 073004			1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-001B	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-002B	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-003B	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-004B	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-005B	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-006B	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-007B	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-008B	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-009B	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407488-001A	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-001BMS	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004
0407459-001BMSD	Soil		1	0	0	50	50.000	7/30/2004	7/30/2004

STAT Analysis Corporation Date: *August 04, 2004*

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10259

Sample ID **IMBS1 7/30/04** SampType: **MBLK** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **7/30/2004** Run ID: **ICPMS-2_040730A**
Client ID: **ZZZZZ** Batch ID: **10259** TestNo: **SW6020** Analysis Date: **7/30/2004** SeqNo: **261963**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	1.5									
Arsenic	ND	0.25									
Beryllium	ND	0.25									
Cadmium	ND	0.25									
Chromium	ND	0.50									
Copper	ND	1.2									
Lead	ND	0.25									
Nickel	ND	0.75									
Selenium	ND	0.50									
Silver	0.1045	0.50									J
Thallium	ND	0.50									
Zinc	1.112	2.5									J

Sample ID **ILCSS1 7/30/04** SampType: **LCS** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **7/30/2004** Run ID: **ICPMS-2_040730A**
Client ID: **ZZZZZ** Batch ID: **10259** TestNo: **SW6020** Analysis Date: **7/30/2004** SeqNo: **261964**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	25.34	0.25	25	0	101	80	120	0	0		
Beryllium	26.42	0.25	25	0	106	80	120	0	0		
Cadmium	25.92	0.25	25	0	104	80	120	0	0		
Chromium	27.38	0.50	25	0	110	80	120	0	0		
Lead	27.82	0.25	25	0	111	80	120	0	0		
Selenium	23.14	0.50	25	0	92.5	80	120	0	0		
Silver	11.8	0.50	10	0.1045	117	80	120	0	0		
Thallium	26.78	0.50	25	0	107	80	120	0	0		
Zinc	26.18	2.5	25	1.112	100	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10259

Sample ID **ILCSS1 7/30/04** SampType: **LCS** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **7/30/2004** Run ID: **ICPMS_040802A**
Client ID: **ZZZZZ** Batch ID: **10259** TestNo: **SW6020** Analysis Date: **8/2/2004** SeqNo: **262395**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	25.1	1.2	25	0	100	80	120	0	0		

Sample ID **ILCSS1 7/30/04** SampType: **LCS** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **7/30/2004** Run ID: **ICPMS-2_040802A**
Client ID: **ZZZZZ** Batch ID: **10259** TestNo: **SW6020** Analysis Date: **8/2/2004** SeqNo: **263118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	28.31	1.5	25	0	113	80	120	0	0		
Nickel	23.18	0.50	25	0	92.7	80	120	0	0		

Sample ID **0407455-002BMS** SampType: **MS** TestCode: **M_ICPMS_S** Units: **mg/Kg-dry** Prep Date: **7/30/2004** Run ID: **ICPMS-2_040730A**
Client ID: **ZZZZZ** Batch ID: **10259** TestNo: **SW6020** Analysis Date: **7/30/2004** SeqNo: **261966**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	19.75	3.0	24.78	0	79.7	75	125	0	0		
Arsenic	24.94	0.50	24.78	0.4401	98.9	75	125	0	0		
Beryllium	25.28	0.50	24.78	0	102	75	125	0	0		
Cadmium	24.64	0.50	24.78	0	99.5	75	125	0	0		
Chromium	28.53	0.99	24.78	3.826	99.7	75	125	0	0		
Lead	29.98	0.50	24.78	3.84	106	75	125	0	0		
Selenium	23.68	0.99	24.78	0	95.6	75	125	0	0		
Silver	10.42	0.99	9.911	0	105	75	125	0	0		
Thallium	26.74	0.99	24.78	0.3285	107	75	125	0	0		
Zinc	33.69	5.0	24.78	10.49	93.6	75	125	0	0		

Sample ID **0407455-002BMS** SampType: **MS** TestCode: **M_ICPMS_S** Units: **mg/Kg-dry** Prep Date: **7/30/2004** Run ID: **ICPMS_040802A**
Client ID: **ZZZZZ** Batch ID: **10259** TestNo: **SW6020** Analysis Date: **8/2/2004** SeqNo: **262687**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	26.44	2.5	24.78	2.463	96.8	75	125	0	0		
Nickel	27.85	0.99	24.78	2.575	102	75	125	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10259

Sample ID **0407455-002BMSD** SampType: **MSD** TestCode: **M_ICPMS_S** Units: **mg/Kg-dry** Prep Date: **7/30/2004** Run ID: **ICPMS-2_040730A**
Client ID: **ZZZZZ** Batch ID: **10259** TestNo: **SW6020** Analysis Date: **7/30/2004** SeqNo: **261967**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	20.53	3.1	25.89	0	79.3	75	125	19.75	3.84	20	
Arsenic	25.63	0.52	25.89	0.4401	97.3	75	125	24.94	2.74	20	
Beryllium	25.8	0.52	25.89	0	99.6	75	125	25.28	2.04	20	
Cadmium	24.93	0.52	25.89	0	96.3	75	125	24.64	1.17	20	
Chromium	28.89	1.0	25.89	3.826	96.8	75	125	28.53	1.26	20	
Lead	34.38	0.52	25.89	3.84	118	75	125	29.98	13.7	20	
Selenium	24.37	1.0	25.89	0	94.1	75	125	23.68	2.88	20	
Silver	10.63	1.0	10.36	0	103	75	125	10.42	2.04	20	
Thallium	27.3	1.0	25.89	0.3285	104	75	125	26.74	2.09	20	
Zinc	35.82	5.2	25.89	10.49	97.9	75	125	33.69	6.15	20	

Sample ID **0407455-002BMSD** SampType: **MSD** TestCode: **M_ICPMS_S** Units: **mg/Kg-dry** Prep Date: **7/30/2004** Run ID: **ICPMS_040802A**
Client ID: **ZZZZZ** Batch ID: **10259** TestNo: **SW6020** Analysis Date: **8/2/2004** SeqNo: **262688**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	28.7	2.6	25.89	2.463	101	75	125	26.44	8.22	20	
Nickel	30.8	1.0	25.89	2.575	109	75	125	27.85	10.1	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10274

Sample ID **HGMBS1 8/2/04** SampType: **MBLK** TestCode: **M_HG_SOLI** Units: **mg/Kg** Prep Date: **8/2/2004** Run ID: **CETAC_040803A**
Client ID: **ZZZZZ** Batch ID: **10274** TestNo: **SW7471A** Analysis Date: **8/3/2004** SeqNo: **263009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.025									

Sample ID **HGLCSS1 8/2/04** SampType: **LCS** TestCode: **M_HG_SOLI** Units: **mg/Kg** Prep Date: **8/2/2004** Run ID: **CETAC_040803A**
Client ID: **ZZZZZ** Batch ID: **10274** TestNo: **SW7471A** Analysis Date: **8/3/2004** SeqNo: **263010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.241	0.025	0.25	0	96.4	80	120	0	0		

Sample ID **0407455-001BMS** SampType: **MS** TestCode: **M_HG_SOLI** Units: **mg/Kg-dry** Prep Date: **8/2/2004** Run ID: **CETAC_040803A**
Client ID: **ZZZZZ** Batch ID: **10274** TestNo: **SW7471A** Analysis Date: **8/3/2004** SeqNo: **263013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.2314	0.026	0.2618	0.01244	83.6	75	125	0	0		

Sample ID **0407455-001BMSD** SampType: **MSD** TestCode: **M_HG_SOLI** Units: **mg/Kg-dry** Prep Date: **8/2/2004** Run ID: **CETAC_040803A**
Client ID: **ZZZZZ** Batch ID: **10274** TestNo: **SW7471A** Analysis Date: **8/3/2004** SeqNo: **263014**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.2586	0.027	0.2661	0.01244	92.5	75	125	0.2314	11.1	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10277

Sample ID	MB-10277-SVOC	SampType:	MBLK	TestCode:	SVOC_SOIL	Units:	mg/Kg	Prep Date:	8/2/2004	Run ID:	SVOC-2_040802A
Client ID:	ZZZZZ	Batch ID:	10277	TestNo:	SW8270C			Analysis Date:	8/2/2004	SeqNo:	262789

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.17									
1,2-Dichlorobenzene	ND	0.17									
1,3-Dichlorobenzene	ND	0.17									
1,4-Dichlorobenzene	ND	0.17									
2, 2'-oxybis(1-Chloropropane)	ND	0.17									
2,4,5-Trichlorophenol	ND	0.33									
2,4,6-Trichlorophenol	ND	0.17									
2,4-Dichlorophenol	ND	0.17									
2,4-Dimethylphenol	ND	0.17									
2,4-Dinitrophenol	ND	0.80									
2,4-Dinitrotoluene	ND	0.17									
2,6-Dinitrotoluene	ND	0.17									
2-Chloronaphthalene	ND	0.17									
2-Chlorophenol	ND	0.17									
2-Methylnaphthalene	ND	0.17									
2-Methylphenol	ND	0.17									
2-Nitroaniline	ND	0.80									
2-Nitrophenol	ND	0.17									
3,3'-Dichlorobenzidine	ND	0.33									
3-Nitroaniline	ND	0.80									
4,6-Dinitro-2-methylphenol	ND	0.80									
4-Bromophenyl phenyl ether	ND	0.17									
4-Chloro-3-methylphenol	ND	0.17									
4-Chloroaniline	ND	0.17									
4-Chlorophenyl phenyl ether	ND	0.17									
4-Methylphenol	ND	0.17									
4-Nitroaniline	ND	0.80									
4-Nitrophenol	ND	0.80									
Aniline	ND	0.17									
Benzidine	ND	0.17									
Benzoic acid	ND	0.80									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10277

Sample ID **MB-10277-SVOC** SampType: **MBLK** TestCode: **SVOC_SOIL** Units: **mg/Kg** Prep Date: **8/2/2004** Run ID: **SVOC-2_040802A**
Client ID: **ZZZZZ** Batch ID: **10277** TestNo: **SW8270C** Analysis Date: **8/2/2004** SeqNo: **262789**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzyl alcohol	ND	0.17									
Bis(2-chloroethoxy)methane	ND	0.17									
Bis(2-chloroethyl)ether	ND	0.17									
Bis(2-ethylhexyl)phthalate	ND	0.17									
Butyl benzyl phthalate	ND	0.17									
Carbazole	ND	0.17									
Di-n-butyl phthalate	ND	0.17									
Di-n-octyl phthalate	ND	0.17									
Dibenzofuran	ND	0.17									
Diethyl phthalate	ND	0.17									
Dimethyl phthalate	ND	0.17									
Hexachlorobenzene	ND	0.17									
Hexachlorobutadiene	ND	0.17									
Hexachlorocyclopentadiene	ND	0.17									
Hexachloroethane	ND	0.17									
Isophorone	ND	0.17									
N-Nitrosodi-n-propylamine	ND	0.17									
N-Nitrosodimethylamine	ND	0.17									
N-Nitrosodiphenylamine	ND	0.17									
Nitrobenzene	ND	0.17									
Pentachlorophenol	ND	0.80									
Phenol	ND	0.17									
Pyridine	ND	0.17									

Sample ID **LCS-10277-SVOC** SampType: **LCS** TestCode: **SVOC_SOIL** Units: **mg/Kg** Prep Date: **8/2/2004** Run ID: **SVOC-2_040803B**
Client ID: **ZZZZZ** Batch ID: **10277** TestNo: **SW8270C** Analysis Date: **8/3/2004** SeqNo: **263436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	1.004	0.17	1.667	0	60.2	55	106	0	0		
1,4-Dichlorobenzene	0.9107	0.17	1.667	0	54.6	55	90	0	0		S
2,4-Dinitrotoluene	1.097	0.17	1.667	0	65.8	55	101	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10277

Sample ID **LCS-10277-SVOC** SampType: **LCS** TestCode: **SVOC_SOIL** Units: **mg/Kg** Prep Date: **8/2/2004** Run ID: **SVOC-2_040803B**
Client ID: **ZZZZZ** Batch ID: **10277** TestNo: **SW8270C** Analysis Date: **8/3/2004** SeqNo: **263436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorophenol	1.965	0.17	3.333	0	59	61	91	0	0		S
4-Chloro-3-methylphenol	2.09	0.17	3.333	0	62.7	62	100	0	0		
4-Nitrophenol	2.603	0.80	3.333	0	78.1	53	123	0	0		
N-Nitrosodi-n-propylamine	1.035	0.17	1.667	0	62.1	55	100	0	0		
Pentachlorophenol	2.577	0.80	3.333	0	77.3	40	120	0	0		
Phenol	1.989	0.17	3.333	0	59.7	60	91	0	0		S

Sample ID **0408006-001BMS** SampType: **MS** TestCode: **SVOC_SOIL** Units: **mg/Kg-dry** Prep Date: **8/2/2004** Run ID: **SVOC-2_040802A**
Client ID: **ZZZZZ** Batch ID: **10277** TestNo: **SW8270C** Analysis Date: **8/3/2004** SeqNo: **262792**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	1.429	0.22	2.121	0	67.3	55	106	0	0		
1,4-Dichlorobenzene	1.251	0.22	2.121	0	59	55	90	0	0		
2,4-Dinitrotoluene	1.407	0.22	2.121	0	66.3	55	101	0	0		
2-Chlorophenol	2.64	0.22	4.241	0	62.2	61	91	0	0		
4-Chloro-3-methylphenol	3.029	0.22	4.241	0	71.4	62	100	0	0		
4-Nitrophenol	3.526	1.0	4.241	0	83.1	53	123	0	0		
N-Nitrosodi-n-propylamine	1.454	0.22	2.121	0	68.5	55	100	0	0		
Pentachlorophenol	3.544	1.0	4.241	0	83.6	40	120	0	0		
Phenol	2.671	0.22	4.241	0	63	60	91	0	0		

Sample ID **0408006-001BMSD** SampType: **MSD** TestCode: **SVOC_SOIL** Units: **mg/Kg-dry** Prep Date: **8/2/2004** Run ID: **SVOC-2_040803A**
Client ID: **ZZZZZ** Batch ID: **10277** TestNo: **SW8270C** Analysis Date: **8/3/2004** SeqNo: **263091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	1.349	0.22	2.122	0	63.6	55	106	1.429	5.74	23	
1,4-Dichlorobenzene	1.213	0.22	2.122	0	57.2	55	90	1.251	3.10	27	
2,4-Dinitrotoluene	1.315	0.22	2.122	0	61.9	55	101	1.407	6.82	47	
2-Chlorophenol	2.595	0.22	4.243	0	61.2	61	91	2.64	1.72	50	
4-Chloro-3-methylphenol	2.932	0.22	4.243	0	69.1	62	100	3.029	3.25	33	
4-Nitrophenol	3.438	1.0	4.243	0	81	53	123	3.526	2.51	50	

Qualifiers: ND - Not Detected at the Reporting Limit
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10277

Sample ID **0408006-001BMSD** SampType: **MSD** TestCode: **SVOC_SOIL** Units: **mg/Kg-dry** Prep Date: **8/2/2004** Run ID: **SVOC-2_040803A**
Client ID: **ZZZZZ** Batch ID: **10277** TestNo: **SW8270C** Analysis Date: **8/3/2004** SeqNo: **263091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
N-Nitrosodi-n-propylamine	1.502	0.22	2.122	0	70.8	55	100	1.454	3.28	38	
Pentachlorophenol	3.362	1.0	4.243	0	79.2	40	120	3.544	5.29	47	
Phenol	2.623	0.22	4.243	0	61.8	60	91	2.671	1.83	35	

Qualifiers:
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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10278

Sample ID **MB-10278-PNA** SampType: **MBLK** TestCode: **PNA_SOIL** Units: **mg/Kg** Prep Date: **8/2/2004** Run ID: **SVOC-4_040803B**
Client ID: **ZZZZZ** Batch ID: **10278** TestNo: **SW8270C-SI** Analysis Date: **8/3/2004** SeqNo: **263484**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.025									
Acenaphthylene	ND	0.025									
Anthracene	ND	0.025									
Benz(a)anthracene	ND	0.025									
Benzo(a)pyrene	ND	0.025									
Benzo(b)fluoranthene	ND	0.025									
Benzo(g,h,i)perylene	ND	0.025									
Benzo(k)fluoranthene	ND	0.025									
Chrysene	ND	0.025									
Dibenz(a,h)anthracene	ND	0.025									
Fluoranthene	ND	0.025									
Fluorene	ND	0.025									
Indeno(1,2,3-cd)pyrene	ND	0.025									
Naphthalene	ND	0.025									
Phenanthrene	ND	0.025									
Pyrene	ND	0.025									

Sample ID **LCS-10278-PNA** SampType: **LCS** TestCode: **PNA_SOIL** Units: **mg/Kg** Prep Date: **8/2/2004** Run ID: **SVOC-4_040803B**
Client ID: **ZZZZZ** Batch ID: **10278** TestNo: **SW8270C-SI** Analysis Date: **8/3/2004** SeqNo: **263485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	0.1283	0.025	0.167	0	76.8	30	130	0	0		
Acenaphthylene	0.133	0.025	0.167	0	79.6	30	130	0	0		
Anthracene	0.121	0.025	0.167	0	72.5	30	130	0	0		
Benz(a)anthracene	0.145	0.025	0.167	0	86.8	30	130	0	0		
Benzo(a)pyrene	0.1383	0.025	0.167	0	82.8	30	130	0	0		
Benzo(b)fluoranthene	0.1577	0.025	0.167	0	94.4	30	130	0	0		
Benzo(g,h,i)perylene	0.164	0.025	0.167	0	98.2	30	130	0	0		
Benzo(k)fluoranthene	0.1577	0.025	0.167	0	94.4	30	130	0	0		
Chrysene	0.143	0.025	0.167	0	85.6	30	130	0	0		
Dibenz(a,h)anthracene	0.173	0.025	0.167	0	104	30	130	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10278

Sample ID	LCS-10278-PNA	SampType:	LCS	TestCode:	PNA_SOIL	Units:	mg/Kg	Prep Date:	8/2/2004	Run ID:	SVOC-4_040803B
Client ID:	ZZZZZ	Batch ID:	10278	TestNo:	SW8270C-SI			Analysis Date:	8/3/2004	SeqNo:	263485

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoranthene	0.146	0.025	0.167	0	87.4	30	130	0	0		
Fluorene	0.1443	0.025	0.167	0	86.4	30	130	0	0		
Indeno(1,2,3-cd)pyrene	0.1657	0.025	0.167	0	99.2	30	130	0	0		
Naphthalene	0.1217	0.025	0.167	0	72.9	30	130	0	0		
Phenanthrene	0.13	0.025	0.167	0	77.8	30	130	0	0		
Pyrene	0.1373	0.025	0.167	0	82.2	30	130	0	0		

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CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10291

Sample ID **0407459-004AMS** SampType: **MS** TestCode: **VOC_ENCOR** Units: **mg/Kg-dry** Prep Date: **7/29/2004** Run ID: **VOA-3_040803A**
Client ID: **HAS-CF04D-001** Batch ID: **10291** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263257**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	3.296	0.28	2.796	0.4076	103	70	130	0	0		
1,1,2,2-Tetrachloroethane	2.85	0.28	2.796	0	102	70	130	0	0		
1,1,2-Trichloroethane	2.898	0.28	2.796	0	104	70	130	0	0		
1,1-Dichloroethane	2.93	0.28	2.796	0	105	70	130	0	0		
1,1-Dichloroethene	2.964	0.28	2.796	0	106	50	234	0	0		
1,2-Dichloroethane	3.033	0.28	2.796	0	108	70	130	0	0		
1,2-Dichloropropane	3.019	0.28	2.796	0	108	70	130	0	0		
2-Butanone	3.925	0.56	2.796	0	140	70	130	0	0		S
2-Hexanone	4.049	0.56	2.796	0	145	70	130	0	0		S
4-Methyl-2-pentanone	3.118	0.56	2.796	0	112	70	130	0	0		
Acetone	6.767	1.4	2.796	0	242	70	130	0	0		S
Benzene	5.692	0.28	2.796	2.614	110	37	151	0	0		
Bromodichloromethane	2.379	0.28	2.796	0	85.1	70	130	0	0		
Bromoform	2.051	0.28	2.796	0	73.4	70	130	0	0		
Bromomethane	0.4512	0.56	2.796	0	16.1	70	130	0	0		JS
Carbon disulfide	3.448	0.28	2.796	0	123	70	130	0	0		
Carbon tetrachloride	2.423	0.28	2.796	0	86.7	70	130	0	0		
Chlorobenzene	3.096	0.28	2.796	0	111	37	160	0	0		
Chloroethane	0.2935	0.56	2.796	0	10.5	70	130	0	0		JS
Chloroform	2.897	0.28	2.796	0	104	70	130	0	0		
Chloromethane	2.513	0.56	2.796	0	89.9	70	130	0	0		
cis-1,2-Dichloroethene	2.83	0.28	2.796	0	101	70	130	0	0		
cis-1,3-Dichloropropene	3.015	0.28	2.796	0	108	70	130	0	0		
Dibromochloromethane	2.231	0.28	2.796	0	79.8	70	130	0	0		
Ethylbenzene	3.201	0.28	2.796	0.06877	112	70	130	0	0		
Methyl tert-butyl ether	3.003	0.28	2.796	0	107	50	150	0	0		
Methylene chloride	3.089	0.56	2.796	0.1303	106	70	130	0	0		
Styrene	3.013	0.28	2.796	0	108	70	130	0	0		
Tetrachloroethene	3.402	0.28	2.796	0.2276	114	70	130	0	0		
Toluene	3.201	0.28	2.796	0.1426	109	47	150	0	0		
trans-1,2-Dichloroethene	3.088	0.28	2.796	0	110	70	130	0	0		

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10291

Sample ID **0407459-004AMS** SampType: **MS** TestCode: **VOC_ENCOR** Units: **mg/Kg-dry** Prep Date: **7/29/2004** Run ID: **VOA-3_040803A**
Client ID: **HAS-CF04D-001** Batch ID: **10291** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263257**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	3.076	0.28	2.796	0	110	70	130	0	0		
Trichloroethene	3.112	0.28	2.796	0	111	71	157	0	0		
Vinyl chloride	2.668	0.28	2.796	0	95.4	70	130	0	0		
Xylenes, Total	9.463	0.56	8.387	0.2264	110	70	130	0	0		

Sample ID **0407459-004AMSD** SampType: **MSD** TestCode: **VOC_ENCOR** Units: **mg/Kg-dry** Prep Date: **7/29/2004** Run ID: **VOA-3_040803A**
Client ID: **HAS-CF04D-001** Batch ID: **10291** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263258**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	3.188	0.28	2.796	0.4076	99.4	70	130	3.296	3.33	25	
1,1,2,2-Tetrachloroethane	2.47	0.28	2.796	0	88.4	70	130	2.85	14.3	25	
1,1,2-Trichloroethane	2.701	0.28	2.796	0	96.6	70	130	2.898	7.05	25	
1,1-Dichloroethane	2.825	0.28	2.796	0	101	70	130	2.93	3.63	25	
1,1-Dichloroethene	2.798	0.28	2.796	0	100	50	234	2.964	5.74	25	
1,2-Dichloroethane	2.915	0.28	2.796	0	104	70	130	3.033	3.97	25	
1,2-Dichloropropane	2.872	0.28	2.796	0	103	70	130	3.019	4.99	25	
2-Butanone	3.586	0.56	2.796	0	128	70	130	3.925	9.04	25	
2-Hexanone	3.527	0.56	2.796	0	126	70	130	4.049	13.8	25	
4-Methyl-2-pentanone	2.822	0.56	2.796	0	101	70	130	3.118	9.96	25	
Acetone	6.097	1.4	2.796	0	218	70	130	6.767	10.4	25	S
Benzene	5.448	0.28	2.796	2.614	101	37	151	5.692	4.38	25	
Bromodichloromethane	2.287	0.28	2.796	0	81.8	70	130	2.379	3.95	25	
Bromoform	2.089	0.28	2.796	0	74.7	70	130	2.051	1.81	25	
Bromomethane	0.4864	0.56	2.796	0	17.4	70	130	0.4512	0	25	JS
Carbon disulfide	3.266	0.28	2.796	0	117	70	130	3.448	5.43	25	
Carbon tetrachloride	2.441	0.28	2.796	0	87.3	70	130	2.423	0.713	25	
Chlorobenzene	2.957	0.28	2.796	0	106	37	160	3.096	4.60	25	
Chloroethane	0.44	0.56	2.796	0	15.7	70	130	0.2935	0	25	JS
Chloroform	2.769	0.28	2.796	0	99.1	70	130	2.897	4.52	25	
Chloromethane	2.277	0.56	2.796	0	81.5	70	130	2.513	9.83	25	
cis-1,2-Dichloroethene	2.715	0.28	2.796	0	97.1	70	130	2.83	4.15	25	

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CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10291

Sample ID **0407459-004AMSD** SampType: **MSD** TestCode: **VOC_ENCOR** Units: **mg/Kg-dry** Prep Date: **7/29/2004** Run ID: **VOA-3_040803A**
Client ID: **HAS-CF04D-001** Batch ID: **10291** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263258**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	2.809	0.28	2.796	0	100	70	130	3.015	7.09	25	
Dibromochloromethane	2.163	0.28	2.796	0	77.4	70	130	2.231	3.08	25	
Ethylbenzene	3.088	0.28	2.796	0.06877	108	70	130	3.201	3.59	25	
Methyl tert-butyl ether	2.789	0.28	2.796	0	99.8	50	150	3.003	7.39	0	
Methylene chloride	2.938	0.56	2.796	0.1303	100	70	130	3.089	5.01	25	
Styrene	2.838	0.28	2.796	0	102	70	130	3.013	5.98	25	
Tetrachloroethene	3.294	0.28	2.796	0.2276	110	70	130	3.402	3.21	25	
Toluene	3.063	0.28	2.796	0.1426	104	47	150	3.201	4.41	25	
trans-1,2-Dichloroethene	2.878	0.28	2.796	0	103	70	130	3.088	7.03	25	
trans-1,3-Dichloropropene	2.857	0.28	2.796	0	102	70	130	3.076	7.41	25	
Trichloroethene	3.114	0.28	2.796	0	111	71	157	3.112	0.0718	25	
Vinyl chloride	2.5	0.28	2.796	0	89.4	70	130	2.668	6.49	25	
Xylenes, Total	9.067	0.56	8.387	0.2264	105	70	130	9.463	4.27	25	

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CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13691

Sample ID **VBLK080304-3** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-3_040803A**
Client ID: **ZZZZZ** Batch ID: **R13691** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **262929**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0050									
1,1,2,2-Tetrachloroethane	ND	0.0050									
1,1,2-Trichloroethane	ND	0.0050									
1,1-Dichloroethane	ND	0.0050									
1,1-Dichloroethene	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
1,2-Dichloropropane	ND	0.0050									
2-Butanone	ND	0.010									
2-Hexanone	ND	0.010									
4-Methyl-2-pentanone	ND	0.010									
Acetone	0.00424	0.025									J
Benzene	ND	0.0050									
Bromodichloromethane	ND	0.0050									
Bromoform	ND	0.0050									
Bromomethane	ND	0.010									
Carbon disulfide	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroethane	ND	0.010									
Chloroform	ND	0.0050									
Chloromethane	ND	0.010									
cis-1,2-Dichloroethene	ND	0.0050									
cis-1,3-Dichloropropene	ND	0.0050									
Dibromochloromethane	ND	0.0050									
Ethylbenzene	ND	0.0050									
Methyl tert-butyl ether	ND	0.0050									
Methylene chloride	0.00131	0.010									J
Styrene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	ND	0.0050									
trans-1,2-Dichloroethene	ND	0.0050									

Qualifiers:
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CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13691

Sample ID **VBLK080304-3** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-3_040803A**
Client ID: **ZZZZZ** Batch ID: **R13691** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **262929**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									
Xylenes, Total	ND	0.010									

Sample ID **VLCS080304-3** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-3_040803A**
Client ID: **ZZZZZ** Batch ID: **R13691** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **262930**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05275	0.0050	0.05	0	106	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.05315	0.0050	0.05	0	106	70	130	0	0		
1,1,2-Trichloroethane	0.05056	0.0050	0.05	0	101	70	130	0	0		
1,1-Dichloroethane	0.0567	0.0050	0.05	0	113	70	130	0	0		
1,1-Dichloroethene	0.05089	0.0050	0.05	0	102	70	130	0	0		
1,2-Dichloroethane	0.05097	0.0050	0.05	0	102	70	130	0	0		
1,2-Dichloropropane	0.0541	0.0050	0.05	0	108	70	130	0	0		
2-Butanone	0.06982	0.010	0.05	0	140	70	130	0	0		S
2-Hexanone	0.06474	0.010	0.05	0	129	70	130	0	0		
4-Methyl-2-pentanone	0.05319	0.010	0.05	0	106	70	130	0	0		
Acetone	0.1513	0.025	0.05	0.00424	294	50	150	0	0		S
Benzene	0.0538	0.0050	0.05	0	108	70	130	0	0		
Bromodichloromethane	0.04906	0.0050	0.05	0	98.1	70	130	0	0		
Bromoform	0.04521	0.0050	0.05	0	90.4	70	130	0	0		
Bromomethane	0.03843	0.010	0.05	0	76.9	70	130	0	0		
Carbon disulfide	0.06472	0.0050	0.05	0	129	70	130	0	0		
Carbon tetrachloride	0.05046	0.0050	0.05	0	101	70	130	0	0		
Chlorobenzene	0.04815	0.0050	0.05	0	96.3	70	130	0	0		
Chloroethane	0.05779	0.010	0.05	0	116	70	130	0	0		
Chloroform	0.05503	0.0050	0.05	0	110	70	130	0	0		
Chloromethane	0.0522	0.010	0.05	0	104	70	130	0	0		
cis-1,2-Dichloroethene	0.05228	0.0050	0.05	0	105	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13691

Sample ID **VLCS080304-3** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-3_040803A**
Client ID: **ZZZZZ** Batch ID: **R13691** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **262930**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	0.05124	0.0050	0.05	0	102	70	130	0	0		
Dibromochloromethane	0.04461	0.0050	0.05	0	89.2	70	130	0	0		
Ethylbenzene	0.05113	0.0050	0.05	0	102	70	130	0	0		
Methyl tert-butyl ether	0.05177	0.0050	0.05	0	104	50	150	0	0		
Methylene chloride	0.05386	0.010	0.05	0.00131	105	70	130	0	0		
Styrene	0.04863	0.0050	0.05	0	97.3	70	130	0	0		
Tetrachloroethene	0.04902	0.0050	0.05	0	98	70	130	0	0		
Toluene	0.05271	0.0050	0.05	0	105	70	130	0	0		
trans-1,2-Dichloroethene	0.05406	0.0050	0.05	0	108	70	130	0	0		
trans-1,3-Dichloropropene	0.05145	0.0050	0.05	0	103	70	130	0	0		
Trichloroethene	0.0522	0.0050	0.05	0	104	70	130	0	0		
Vinyl chloride	0.06285	0.0050	0.05	0	126	70	130	0	0		
Xylenes, Total	0.1478	0.010	0.15	0	98.5	70	130	0	0		

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13706

Sample ID **VBLK080304-2** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040803B**
Client ID: **ZZZZZ** Batch ID: **R13706** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263350**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0050									
1,1,2,2-Tetrachloroethane	ND	0.0050									
1,1,2-Trichloroethane	ND	0.0050									
1,1-Dichloroethane	ND	0.0050									
1,1-Dichloroethene	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
1,2-Dichloropropane	ND	0.0050									
2-Butanone	ND	0.010									
2-Hexanone	ND	0.010									
4-Methyl-2-pentanone	ND	0.010									
Acetone	ND	0.025									
Benzene	ND	0.0050									
Bromodichloromethane	ND	0.0050									
Bromoform	ND	0.0050									
Bromomethane	ND	0.010									
Carbon disulfide	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroethane	ND	0.010									
Chloroform	ND	0.0050									
Chloromethane	ND	0.010									
cis-1,2-Dichloroethene	ND	0.0050									
cis-1,3-Dichloropropene	ND	0.0050									
Dibromochloromethane	ND	0.0050									
Ethylbenzene	ND	0.0050									
Methyl tert-butyl ether	ND	0.0050									
Methylene chloride	ND	0.010									
Styrene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	0.00329	0.0050									J
trans-1,2-Dichloroethene	ND	0.0050									

Qualifiers:
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H/HT - Holding Time Exceeded
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CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13706

Sample ID **VBLK080304-2** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040803B**
Client ID: **ZZZZZ** Batch ID: **R13706** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263350**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									
Xylenes, Total	ND	0.010									

Sample ID **VLCS080304-2** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040803B**
Client ID: **ZZZZZ** Batch ID: **R13706** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263351**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05679	0.0050	0.05	0	114	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.04505	0.0050	0.05	0	90.1	70	130	0	0		
1,1,2-Trichloroethane	0.0492	0.0050	0.05	0	98.4	70	130	0	0		
1,1-Dichloroethane	0.05675	0.0050	0.05	0	114	70	130	0	0		
1,1-Dichloroethene	0.05536	0.0050	0.05	0	111	70	130	0	0		
1,2-Dichloroethane	0.05381	0.0050	0.05	0	108	70	130	0	0		
1,2-Dichloropropane	0.05369	0.0050	0.05	0	107	70	130	0	0		
2-Butanone	0.05288	0.010	0.05	0	106	70	130	0	0		
2-Hexanone	0.04132	0.010	0.05	0	82.6	70	130	0	0		
4-Methyl-2-pentanone	0.0501	0.010	0.05	0	100	70	130	0	0		
Acetone	0.07067	0.025	0.05	0	141	50	150	0	0		
Benzene	0.05537	0.0050	0.05	0	111	70	130	0	0		
Bromodichloromethane	0.04902	0.0050	0.05	0	98	70	130	0	0		
Bromoform	0.04897	0.0050	0.05	0	97.9	70	130	0	0		
Bromomethane	0.04911	0.010	0.05	0	98.2	70	130	0	0		
Carbon disulfide	0.06737	0.0050	0.05	0	135	70	130	0	0		S
Carbon tetrachloride	0.05833	0.0050	0.05	0	117	70	130	0	0		
Chlorobenzene	0.05268	0.0050	0.05	0	105	70	130	0	0		
Chloroethane	0.06306	0.010	0.05	0	126	70	130	0	0		
Chloroform	0.05642	0.0050	0.05	0	113	70	130	0	0		
Chloromethane	0.04378	0.010	0.05	0	87.6	70	130	0	0		
cis-1,2-Dichloroethene	0.05511	0.0050	0.05	0	110	70	130	0	0		

Qualifiers:
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13706

Sample ID **VLCS080304-2** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040803B**
Client ID: **ZZZZZ** Batch ID: **R13706** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263351**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	0.0518	0.0050	0.05	0	104	70	130	0	0		
Dibromochloromethane	0.05002	0.0050	0.05	0	100	70	130	0	0		
Ethylbenzene	0.0525	0.0050	0.05	0	105	70	130	0	0		
Methyl tert-butyl ether	0.05297	0.0050	0.05	0	106	50	150	0	0		
Methylene chloride	0.05492	0.010	0.05	0	110	70	130	0	0		
Styrene	0.05182	0.0050	0.05	0	104	70	130	0	0		
Tetrachloroethene	0.05722	0.0050	0.05	0	114	70	130	0	0		
Toluene	0.05369	0.0050	0.05	0.00329	101	70	130	0	0		
trans-1,2-Dichloroethene	0.05805	0.0050	0.05	0	116	70	130	0	0		
trans-1,3-Dichloropropene	0.0533	0.0050	0.05	0	107	70	130	0	0		
Trichloroethene	0.05857	0.0050	0.05	0	117	70	130	0	0		
Vinyl chloride	0.06257	0.0050	0.05	0	125	70	130	0	0		
Xylenes, Total	0.159	0.010	0.15	0	106	70	130	0	0		

Sample ID **VLCSD080304-2** SampType: **LCSD** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040803B**
Client ID: **ZZZZZ** Batch ID: **R13706** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263352**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05809	0.0050	0.05	0	116	70	130	0.05679	2.26	20	
1,1,2,2-Tetrachloroethane	0.045	0.0050	0.05	0	90	70	130	0.04505	0.111	20	
1,1,2-Trichloroethane	0.04896	0.0050	0.05	0	97.9	70	130	0.0492	0.489	20	
1,1-Dichloroethane	0.05681	0.0050	0.05	0	114	70	130	0.05675	0.106	20	
1,1-Dichloroethene	0.05542	0.0050	0.05	0	111	70	130	0.05536	0.108	20	
1,2-Dichloroethane	0.05514	0.0050	0.05	0	110	70	130	0.05381	2.44	20	
1,2-Dichloropropane	0.05529	0.0050	0.05	0	111	70	130	0.05369	2.94	20	
2-Butanone	0.04786	0.010	0.05	0	95.7	70	130	0.05288	9.97	20	
2-Hexanone	0.04174	0.010	0.05	0	83.5	70	130	0.04132	1.01	20	
4-Methyl-2-pentanone	0.0504	0.010	0.05	0	101	70	130	0.0501	0.597	20	
Acetone	0.05679	0.025	0.05	0	114	50	150	0.07067	21.8	20	R
Benzene	0.05576	0.0050	0.05	0	112	70	130	0.05537	0.702	20	
Bromodichloromethane	0.0501	0.0050	0.05	0	100	70	130	0.04902	2.18	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13706

Sample ID **VLCSD080304-2** SampType: **LCSD** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040803B**
Client ID: **ZZZZZ** Batch ID: **R13706** TestNo: **SW5035/8260** Analysis Date: **8/3/2004** SeqNo: **263352**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.04926	0.0050	0.05	0	98.5	70	130	0.04897	0.590	20	
Bromomethane	0.05227	0.010	0.05	0	105	70	130	0.04911	6.23	20	
Carbon disulfide	0.06542	0.0050	0.05	0	131	70	130	0.06737	2.94	20	S
Carbon tetrachloride	0.05622	0.0050	0.05	0	112	70	130	0.05833	3.68	20	
Chlorobenzene	0.05129	0.0050	0.05	0	103	70	130	0.05268	2.67	20	
Chloroethane	0.06254	0.010	0.05	0	125	70	130	0.06306	0.828	20	
Chloroform	0.05635	0.0050	0.05	0	113	70	130	0.05642	0.124	20	
Chloromethane	0.04534	0.010	0.05	0	90.7	70	130	0.04378	3.50	20	
cis-1,2-Dichloroethene	0.05405	0.0050	0.05	0	108	70	130	0.05511	1.94	20	
cis-1,3-Dichloropropene	0.05351	0.0050	0.05	0	107	70	130	0.0518	3.25	20	
Dibromochloromethane	0.04915	0.0050	0.05	0	98.3	70	130	0.05002	1.75	20	
Ethylbenzene	0.05177	0.0050	0.05	0	104	70	130	0.0525	1.40	20	
Methyl tert-butyl ether	0.05461	0.0050	0.05	0	109	50	150	0.05297	3.05	20	
Methylene chloride	0.05554	0.010	0.05	0	111	70	130	0.05492	1.12	20	
Styrene	0.05091	0.0050	0.05	0	102	70	130	0.05182	1.77	20	
Tetrachloroethene	0.05506	0.0050	0.05	0	110	70	130	0.05722	3.85	20	
Toluene	0.05529	0.0050	0.05	0.00329	104	70	130	0.05369	2.94	20	
trans-1,2-Dichloroethene	0.05779	0.0050	0.05	0	116	70	130	0.05805	0.449	20	
trans-1,3-Dichloropropene	0.05411	0.0050	0.05	0	108	70	130	0.0533	1.51	20	
Trichloroethene	0.05771	0.0050	0.05	0	115	70	130	0.05857	1.48	20	
Vinyl chloride	0.06288	0.0050	0.05	0	126	70	130	0.06257	0.494	20	
Xylenes, Total	0.1543	0.010	0.15	0	103	70	130	0.159	2.96	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
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* - Non Accredited Parameter
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R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13723

Sample ID	VBLK080404-2	SampType:	MBLK	TestCode:	VOC_ENCOR	Units:	mg/Kg	Prep Date:		Run ID:	VOA-2_040804A
Client ID:	ZZZZZ	Batch ID:	R13723	TestNo:	SW5035/8260			Analysis Date:	8/4/2004	SeqNo:	263678

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	0.0050									
1,1,2,2-Tetrachloroethane	ND	0.0050									
1,1,2-Trichloroethane	ND	0.0050									
1,1-Dichloroethane	ND	0.0050									
1,1-Dichloroethene	ND	0.0050									
1,2-Dichloroethane	ND	0.0050									
1,2-Dichloropropane	ND	0.0050									
2-Butanone	ND	0.010									
2-Hexanone	ND	0.010									
4-Methyl-2-pentanone	ND	0.010									
Acetone	0.00531	0.025									J
Benzene	ND	0.0050									
Bromodichloromethane	ND	0.0050									
Bromoform	ND	0.0050									
Bromomethane	ND	0.010									
Carbon disulfide	ND	0.0050									
Carbon tetrachloride	ND	0.0050									
Chlorobenzene	ND	0.0050									
Chloroethane	ND	0.010									
Chloroform	ND	0.0050									
Chloromethane	ND	0.010									
cis-1,2-Dichloroethene	ND	0.0050									
cis-1,3-Dichloropropene	ND	0.0050									
Dibromochloromethane	ND	0.0050									
Ethylbenzene	ND	0.0050									
Methyl tert-butyl ether	ND	0.0050									
Methylene chloride	ND	0.010									
Styrene	ND	0.0050									
Tetrachloroethene	ND	0.0050									
Toluene	ND	0.0050									
trans-1,2-Dichloroethene	ND	0.0050									

Qualifiers:
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H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13723

Sample ID **VBLK080404-2** SampType: **MBLK** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040804A**
Client ID: **ZZZZZ** Batch ID: **R13723** TestNo: **SW5035/8260** Analysis Date: **8/4/2004** SeqNo: **263678**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	0.0050									
Trichloroethene	ND	0.0050									
Vinyl chloride	ND	0.0050									
Xylenes, Total	ND	0.010									

Sample ID **VLCS080404-2** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040804A**
Client ID: **ZZZZZ** Batch ID: **R13723** TestNo: **SW5035/8260** Analysis Date: **8/4/2004** SeqNo: **263679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.0572	0.0050	0.05	0	114	70	130	0	0		
1,1,2,2-Tetrachloroethane	0.04693	0.0050	0.05	0	93.9	70	130	0	0		
1,1,2-Trichloroethane	0.04893	0.0050	0.05	0	97.9	70	130	0	0		
1,1-Dichloroethane	0.05544	0.0050	0.05	0	111	70	130	0	0		
1,1-Dichloroethene	0.05566	0.0050	0.05	0	111	70	130	0	0		
1,2-Dichloroethane	0.05313	0.0050	0.05	0	106	70	130	0	0		
1,2-Dichloropropane	0.05442	0.0050	0.05	0	109	70	130	0	0		
2-Butanone	0.0525	0.010	0.05	0	105	70	130	0	0		
2-Hexanone	0.04885	0.010	0.05	0	97.7	70	130	0	0		
4-Methyl-2-pentanone	0.05418	0.010	0.05	0	108	70	130	0	0		
Acetone	0.1081	0.025	0.05	0.00531	206	50	150	0	0		S
Benzene	0.05428	0.0050	0.05	0	109	70	130	0	0		
Bromodichloromethane	0.04993	0.0050	0.05	0	99.9	70	130	0	0		
Bromoform	0.04941	0.0050	0.05	0	98.8	70	130	0	0		
Bromomethane	0.04432	0.010	0.05	0	88.6	70	130	0	0		
Carbon disulfide	0.06594	0.0050	0.05	0	132	70	130	0	0		S
Carbon tetrachloride	0.05948	0.0050	0.05	0	119	70	130	0	0		
Chlorobenzene	0.05148	0.0050	0.05	0	103	70	130	0	0		
Chloroethane	0.06143	0.010	0.05	0	123	70	130	0	0		
Chloroform	0.0552	0.0050	0.05	0	110	70	130	0	0		
Chloromethane	0.0448	0.010	0.05	0	89.6	70	130	0	0		
cis-1,2-Dichloroethene	0.05321	0.0050	0.05	0	106	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13723

Sample ID **VLCS080404-2** SampType: **LCS** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040804A**
Client ID: **ZZZZZ** Batch ID: **R13723** TestNo: **SW5035/8260** Analysis Date: **8/4/2004** SeqNo: **263679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	0.05334	0.0050	0.05	0	107	70	130	0	0		
Dibromochloromethane	0.04941	0.0050	0.05	0	98.8	70	130	0	0		
Ethylbenzene	0.0526	0.0050	0.05	0	105	70	130	0	0		
Methyl tert-butyl ether	0.0542	0.0050	0.05	0	108	50	150	0	0		
Methylene chloride	0.05248	0.010	0.05	0	105	70	130	0	0		
Styrene	0.05058	0.0050	0.05	0	101	70	130	0	0		
Tetrachloroethene	0.05747	0.0050	0.05	0	115	70	130	0	0		
Toluene	0.0556	0.0050	0.05	0	111	70	130	0	0		
trans-1,2-Dichloroethene	0.05764	0.0050	0.05	0	115	70	130	0	0		
trans-1,3-Dichloropropene	0.05352	0.0050	0.05	0	107	70	130	0	0		
Trichloroethene	0.05854	0.0050	0.05	0	117	70	130	0	0		
Vinyl chloride	0.06257	0.0050	0.05	0	125	70	130	0	0		
Xylenes, Total	0.1583	0.010	0.15	0	106	70	130	0	0		

Sample ID **VLCSD080404-2** SampType: **LCSD** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040804A**
Client ID: **ZZZZZ** Batch ID: **R13723** TestNo: **SW5035/8260** Analysis Date: **8/4/2004** SeqNo: **263680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.05814	0.0050	0.05	0	116	70	130	0.0572	1.63	20	
1,1,2,2-Tetrachloroethane	0.04793	0.0050	0.05	0	95.9	70	130	0.04693	2.11	20	
1,1,2-Trichloroethane	0.04955	0.0050	0.05	0	99.1	70	130	0.04893	1.26	20	
1,1-Dichloroethane	0.0574	0.0050	0.05	0	115	70	130	0.05544	3.47	20	
1,1-Dichloroethene	0.05614	0.0050	0.05	0	112	70	130	0.05566	0.859	20	
1,2-Dichloroethane	0.05434	0.0050	0.05	0	109	70	130	0.05313	2.25	20	
1,2-Dichloropropane	0.05579	0.0050	0.05	0	112	70	130	0.05442	2.49	20	
2-Butanone	0.06395	0.010	0.05	0	128	70	130	0.0525	19.7	20	
2-Hexanone	0.05156	0.010	0.05	0	103	70	130	0.04885	5.40	20	
4-Methyl-2-pentanone	0.05498	0.010	0.05	0	110	70	130	0.05418	1.47	20	
Acetone	0.1181	0.025	0.05	0.00531	226	50	150	0.1081	8.83	20	S
Benzene	0.05559	0.0050	0.05	0	111	70	130	0.05428	2.38	20	
Bromodichloromethane	0.04896	0.0050	0.05	0	97.9	70	130	0.04993	1.96	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13723

Sample ID **VLCSD080404-2** SampType: **LCSD** TestCode: **VOC_ENCOR** Units: **mg/Kg** Prep Date: Run ID: **VOA-2_040804A**
Client ID: **ZZZZZ** Batch ID: **R13723** TestNo: **SW5035/8260** Analysis Date: **8/4/2004** SeqNo: **263680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.05204	0.0050	0.05	0	104	70	130	0.04941	5.18	20	
Bromomethane	0.04639	0.010	0.05	0	92.8	70	130	0.04432	4.56	20	
Carbon disulfide	0.06755	0.0050	0.05	0	135	70	130	0.06594	2.41	20	S
Carbon tetrachloride	0.05931	0.0050	0.05	0	119	70	130	0.05948	0.286	20	
Chlorobenzene	0.05115	0.0050	0.05	0	102	70	130	0.05148	0.643	20	
Chloroethane	0.06153	0.010	0.05	0	123	70	130	0.06143	0.163	20	
Chloroform	0.05553	0.0050	0.05	0	111	70	130	0.0552	0.596	20	
Chloromethane	0.0448	0.010	0.05	0	89.6	70	130	0.0448	0	20	
cis-1,2-Dichloroethene	0.05446	0.0050	0.05	0	109	70	130	0.05321	2.32	20	
cis-1,3-Dichloropropene	0.05208	0.0050	0.05	0	104	70	130	0.05334	2.39	20	
Dibromochloromethane	0.05041	0.0050	0.05	0	101	70	130	0.04941	2.00	20	
Ethylbenzene	0.05281	0.0050	0.05	0	106	70	130	0.0526	0.398	20	
Methyl tert-butyl ether	0.05459	0.0050	0.05	0	109	50	150	0.0542	0.717	20	
Methylene chloride	0.05073	0.010	0.05	0	101	70	130	0.05248	3.39	20	
Styrene	0.05109	0.0050	0.05	0	102	70	130	0.05058	1.00	20	
Tetrachloroethene	0.05668	0.0050	0.05	0	113	70	130	0.05747	1.38	20	
Toluene	0.05464	0.0050	0.05	0	109	70	130	0.0556	1.74	20	
trans-1,2-Dichloroethene	0.05848	0.0050	0.05	0	117	70	130	0.05764	1.45	20	
trans-1,3-Dichloropropene	0.05483	0.0050	0.05	0	110	70	130	0.05352	2.42	20	
Trichloroethene	0.05868	0.0050	0.05	0	117	70	130	0.05854	0.239	20	
Vinyl chloride	0.06335	0.0050	0.05	0	127	70	130	0.06257	1.24	20	
Xylenes, Total	0.1552	0.010	0.15	0	103	70	130	0.1583	2.00	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10294

Sample ID	TCNMBS1 073004	SampType:	MBLK	TestCode:	CN_TS	Units:	mg/Kg	Prep Date:	7/30/2004	Run ID:	LACHAT_040803A
Client ID:	ZZZZZ	Batch ID:	10294	TestNo:	SW9012A			Analysis Date:	8/3/2004	SeqNo:	263068

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.25									

Sample ID	TCNLCSS1 073004	SampType:	LCS	TestCode:	CN_TS	Units:	mg/Kg	Prep Date:	7/30/2004	Run ID:	LACHAT_040803A
Client ID:	ZZZZZ	Batch ID:	10294	TestNo:	SW9012A			Analysis Date:	8/3/2004	SeqNo:	263069

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	9.729	0.25	10	0	97.3	90	110	0	0		

Sample ID	0407459-001BMS	SampType:	MS	TestCode:	CN_TS	Units:	mg/Kg-dry	Prep Date:	7/30/2004	Run ID:	LACHAT_040803A
Client ID:	HAS-CF03-001	Batch ID:	10294	TestNo:	SW9012A			Analysis Date:	8/3/2004	SeqNo:	263071

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	11.96	0.30	11.99	0	99.7	75	125	0	0		

Sample ID	0407459-001BMSD	SampType:	MSD	TestCode:	CN_TS	Units:	mg/Kg-dry	Prep Date:	7/30/2004	Run ID:	LACHAT_040803A
Client ID:	HAS-CF03-001	Batch ID:	10294	TestNo:	SW9012A			Analysis Date:	8/3/2004	SeqNo:	263072

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	11.98	0.30	11.99	0	99.9	75	125	11.96	0.145	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0407459
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: R13662

Sample ID **MBLK3** SampType: **MBLK** TestCode: **PMOIST** Units: **wt%** Prep Date: **7/30/2004** Run ID: **BALANCE_040730C**
Client ID: **ZZZZZ** Batch ID: **R13662** TestNo: **D2974** Analysis Date: **7/31/2004** SeqNo: **262112**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	ND	0.01000									*

Sample ID **LCS-S3** SampType: **LCS** TestCode: **PMOIST** Units: **wt%** Prep Date: **7/30/2004** Run ID: **BALANCE_040730C**
Client ID: **ZZZZZ** Batch ID: **R13662** TestNo: **D2974** Analysis Date: **7/31/2004** SeqNo: **262113**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	4.57	0.01000	5	0	91.4	80	120	0	0		*

Sample ID **LCS-W3** SampType: **LCS** TestCode: **PMOIST** Units: **wt%** Prep Date: **7/30/2004** Run ID: **BALANCE_040730C**
Client ID: **ZZZZZ** Batch ID: **R13662** TestNo: **D2974** Analysis Date: **7/31/2004** SeqNo: **262114**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	99.79	0.01000	99.8	0	100	80	120	0	0		*

Sample ID **0407464-005B DUP** SampType: **DUP** TestCode: **PMOIST** Units: **wt%** Prep Date: **7/30/2004** Run ID: **BALANCE_040730C**
Client ID: **ZZZZZ** Batch ID: **R13662** TestNo: **D2974** Analysis Date: **7/31/2004** SeqNo: **262135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	17.21	0.01000	0	0	0	0	0	16.86	2.05	20	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

August 12, 2004

Joan Gonzalez
Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0408145

Dear Joan Gonzalez:

STAT Analysis received 4 samples for the referenced project on 7/28/2004. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: August 12, 2004

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0408145

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0408145-001A	HAS-CF03-002	6'-7'	7/28/2004 8:20:00 AM	7/28/2004
0408145-002A	HAS-CF02-001	6'-7'	7/28/2004 8:30:00 AM	7/28/2004
0408145-003A	HAS-CF04C-001	7'-8'	7/28/2004 10:15:00 AM	7/28/2004
0408145-004A	HAS-CF06E-001	5'-6'	7/28/2004 2:00:00 PM	7/28/2004

STAT Analysis Corporation

Date: *August 12, 2004*

CLIENT:	Burns & McDonnell
Project:	29168, Peoples Gas-Hawthorne Regulator Statio
Lab Order:	0408145

CASE NARRATIVE

Sample HAS-CF03-002 was formerly assigned STAT Sample ID 0407459-002.
Sample HAS-CF02-001 was formerly assigned STAT Sample ID 0407459-003.
Sample HAS-CF04C-001 was formerly assigned STAT Sample ID 0407459-005.
Sample HAS-CF06E-001 was formerly assigned STAT Sample ID 0407459-009.

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Date Reported: August 12, 2004
Date Printed: August 12, 2004

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station **Lab Order:** 0408145

Lab ID: 0408145-001 **Collection Date:** 7/28/2004 8:20:00 AM
Client Sample ID: HAS-CF03-002 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
SPLP Metals by ICP/MS		SW1312/6020	(SW3005A)	Prep Date: 8/11/2004		Analyst: BJA
Lead	0.11	0.002		mg/L	2	8/11/2004
TCLP Metals by ICP/MS		SW1311/6020	(SW3005A)	Prep Date: 8/10/2004		Analyst: BJA
Lead	51	0.5		mg/L	500	8/11/2004

Lab ID: 0408145-002 **Collection Date:** 7/28/2004 8:30:00 AM
Client Sample ID: HAS-CF02-001 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
SPLP Metals by ICP/MS		SW1312/6020	(SW3005A)	Prep Date: 8/11/2004		Analyst: BJA
Lead	0.0031	0.002		mg/L	2	8/11/2004
TCLP Metals by ICP/MS		SW1311/6020	(SW3005A)	Prep Date: 8/10/2004		Analyst: BJA
Lead	1.3	0.005		mg/L	5	8/10/2004

Lab ID: 0408145-003 **Collection Date:** 7/28/2004 10:15:00 AM
Client Sample ID: HAS-CF04C-001 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
SPLP Metals by ICP/MS		SW1312/6020	(SW3005A)	Prep Date: 8/11/2004		Analyst: BJA
Lead	ND	0.002		mg/L	2	8/11/2004
TCLP Metals by ICP/MS		SW1311/6020	(SW3005A)	Prep Date: 8/10/2004		Analyst: BJA
Lead	0.29	0.005		mg/L	5	8/10/2004

Lab ID: 0408145-004 **Collection Date:** 7/28/2004 2:00:00 PM
Client Sample ID: HAS-CF06E-001 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
SPLP Metals by ICP/MS		SW1312/6020	(SW3005A)	Prep Date: 8/11/2004		Analyst: BJA
Lead	0.056	0.002		mg/L	2	8/11/2004
TCLP Metals by ICP/MS		SW1311/6020	(SW3005A)	Prep Date: 8/10/2004		Analyst: BJA
Lead	0.098	0.005		mg/L	5	8/10/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

Craig

From: "Diane Saftic" <dsaftic@burnsmcd.com>
To: <CChawla@STATAnalysis.com>
Cc: "Joan Gonzalez" <jgonzalez@burnsmcd.com>
Sent: Thursday, August 05, 2004 5:34 PM
Subject: Re: 29168, Peoples Gas-Hawthorne Regulator Station

Hello Craig,

Thank you for the analytical report. Based on the analytical results, we would like to have soil samples HAS-CF03-002, HAS-CF02-001, HAS-CF04C-001, and HAS-CF06E-001 analyzed for TCLP and SPLP lead. Also, please reanalyze HAS-CF04C-001 for naphthalene. We would appreciate a 5-day TAT. In addition, can you revise the analytical report to present m,p-xylene and o-xylene in addition to total xylenes? If you have any questions, please let me know.

0407459 -002
-003
-005
-009

0408145

Thanks,
Diane Saftic, P.E.
Burns & McDonnell
2601 West 22nd Street
Oak Brook, Illinois 60523
(630) 990-0302 ext. 277

>>> "Craig Chawla" <CChawla@STATAnalysis.com> 8/4/2004 6:39:50 PM >>>
Joan/Diane:

Attached is the report for the 29168, Peoples Gas-Hawthorne Regulator Station project received 7/28/04.

Craig Chawla
STAT Analysis Corporation
(312) 563-0371

The information contained in this e-mail message and any attachments is
confidential information intended only for the use of the individual or
entities named above. If the reader of this message is not the intended
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or copying of this communication is strictly prohibited. If you have
received this communication in error, please notify us immediately by
e-mail at the originating address.

Burns & McDonnell

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: (312) 563-0371

Document Control No: HAS-024-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: TCL VOCs	TCL SVOCs	PAHs (8270 SIM)	Priority Pollutant Metals	Total Cyanide			Remarks
HAS	CF03	001	–	–	7	8	7/28/04	0800		X		5	X	X	X	X	X			001
HAS	CF03	002	–	–	6	7	7/28/04	0820		X		5	X	X	X	X	X			002
HAS	CF02	001	–	–	6	7	7/28/04	0830		X		5	X	X	X	X	X			003
HAS	CF04D	001	–	–	3	4	7/28/04	0940		X		5	X	X	X	X	X			004
HAS	CF04C	001	–	–	7	8	7/28/04	1015		X		5	X	X	X	X	X			005
HAS	CF05C	001	–	–	9	10	7/28/04	1050		X		5	X	X	X	X	X			006
HAS	CF06B	001	–	–	9	10	7/28/04	1240		X		5	X	X	X	X	X			007
HAS	CF07	001	–	–	8	9	7/28/04	1330		X		5	X	X	X	X	X			008
HAS	CF06E	001	–	–	5	6	7/28/04	~~1400~~ 1400 DVS		X		5	X	X	X	X	X			009
								7/28/04												PLEASE FIND. 1 COOLER

Sampler (signature): D Scott

Sampler (signature):

Custody Seal Number: 072804STAT-001, 072804STAT-002

Special Instructions: 5 DAY TAT!

Relinquished By (signature): 1. D Scott — Date/Time: 7/28/04 1545

Received By (signature): — Date/Time: 7/28/04 16:55

Relinquished By (signature): 2. — Date/Time:

Received By (signature): — Date/Time:

Ice Present in Container: Yes ☒ No ☐

Temperature Upon Receipt: 6

Laboratory Comments: 0407459

061301 Form WCD-KC1-CHI

STAT Analysis Corporation

Sample Receipt Checklist

Client Name B&M

Work Order Numbe 0407459

Date and Time Received: 07/28/2004

Received by JC

Checklist completed b [signature] 7/28/04 (Signature, Date)

Reviewed by CK 8/4/04 (Initials, Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 4 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☐	No ☐	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **8/10/2004 8:20:00 A**
Prep End Date: **8/10/2004 2:00:00 P**

Prep Factor Units: **mL / mL**

Prep Batch **10401** Prep Code: **M_W_PREP** Technician: **DGI**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBW1 8/10/04			50	0	0	50	1.000	8/10/2004	8/10/2004
ILCSW1 8/10/04			50	0	0	50	1.000	8/10/2004	8/10/2004
IMBTCLP1 8/9/04			50	0	0	50	1.000	8/10/2004	8/10/2004
0408145-001A	Soil		50	0	0	50	1.000	8/10/2004	8/10/2004
0408145-002A	Soil		50	0	0	50	1.000	8/10/2004	8/10/2004
0408145-003A	Soil		50	0	0	50	1.000	8/10/2004	8/10/2004
0408145-001AMS	Soil		50	0	0	50	1.000	8/10/2004	8/10/2004
0408145-001AMSD	Soil		50	0	0	50	1.000	8/10/2004	8/10/2004
PbLCSW1 8/10/04			50	0	0	50	1.000	8/10/2004	8/10/2004
0408196-001A	Debris		50	0	0	50	1.000	8/10/2004	8/10/2004
0408196-001AMS	Debris		50	0	0	50	1.000	8/10/2004	8/10/2004
0408196-001AMSD	Debris		50	0	0	50	1.000	8/10/2004	8/10/2004
0408145-004A	Soil		50	0	0	50	1.000	8/10/2004	8/10/2004
0408146-001A	Soil		50	0	0	50	1.000	8/10/2004	8/10/2004
0408180-001A	Debris		50	0	0	50	1.000	8/10/2004	8/10/2004
0408181-001A	Debris		50	0	0	50	1.000	8/10/2004	8/10/2004
0408204-001A	Soil		50	0	0	50	1.000	8/10/2004	8/10/2004

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **8/11/2004 9:30:00 A**
Prep End Date: **8/12/2004 1:45:00 P**

Prep Factor Units: **mL / mL**

Prep Batch **10403** Prep Code: **M_W_PREP** Technician: **DGI**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBW1 8/11/04			50	0	0	50	1.000	8/11/2004	8/11/2004
ILCSW1 8/11/04			50	0	0	50	1.000	8/11/2004	8/11/2004
IMBSPLP 8/10/04			50	0	0	50	1.000	8/11/2004	8/11/2004
0408145-002A	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0408145-003A	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0408145-003AMS	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0408145-003AMSD	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0408145-004A	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0407494-001B	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0407494-010A	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0407494-017A	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0407311-002B	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0407311-003B	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0408145-001A	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
IMBTCLP1 8/10/04			50	0	0	50	1.000	8/11/2004	8/11/2004
0408251-001A	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
0408251-001AMS	Soil		50	0	0	50	1.000	8/11/2004	8/11/2004
IMBSPLP 8/11/04			50	0	0	50	1.000	8/12/2004	8/12/2004
0408257-001A	Soil		50	0	0	50	1.000	8/12/2004	8/12/2004
0408257-001AMS	Soil		50	0	0	50	1.000	8/12/2004	8/12/2004

STAT Analysis Corporation Date: *August 13, 2004*

CLIENT: Burns & McDonnell
Work Order: 0408145
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10401

Sample ID 0408145-001AMS SampType: MS TestCode: M_ICPMS_T+ Units: mg/L Prep Date: 8/10/2004 Run ID: ICPMS_040810A
Client ID: HAS-CF03-002 Batch ID: 10401 TestNo: SW1311/6020 Analysis Date: 8/10/2004 SeqNo: 266708

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	60.55	0.0050	0.5	52.93	1520	75	125	0	0		SE

Sample ID 0408145-001AMSD SampType: MSD TestCode: M_ICPMS_T+ Units: mg/L Prep Date: 8/10/2004 Run ID: ICPMS_040810A
Client ID: HAS-CF03-002 Batch ID: 10401 TestNo: SW1311/6020 Analysis Date: 8/10/2004 SeqNo: 266709

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	57.99	0.0050	0.5	52.93	1010	75	125	60.55	4.32	20	SE

Sample ID IMBW1 8/10/04 SampType: MBLK TestCode: M_ICPMS_W Units: mg/L Prep Date: 8/10/2004 Run ID: ICPMS-2_040810A
Client ID: ZZZZZ Batch ID: 10401 TestNo: SW6020 Analysis Date: 8/10/2004 SeqNo: 266367

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.0020									

Sample ID IMBTCLP1 8/9/04 SampType: MBLK TestCode: M_ICPMS_W Units: mg/L Prep Date: 8/10/2004 Run ID: ICPMS-2_040810A
Client ID: ZZZZZ Batch ID: 10401 TestNo: SW6020 Analysis Date: 8/10/2004 SeqNo: 266369

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.0050	0	0	0	0	0	0	0		

Sample ID ILCSW1 8/10/04 SampType: LCS TestCode: M_ICPMS_W Units: mg/L Prep Date: 8/10/2004 Run ID: ICPMS-2_040810A
Client ID: ZZZZZ Batch ID: 10401 TestNo: SW6020 Analysis Date: 8/10/2004 SeqNo: 266368

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.511	0.0020	0.5	0	102	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

Page 1 of 2

CLIENT: Burns & McDonnell
Work Order: 0408145
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10403

Sample ID **IMBSPLP 8/10/04** SampType: **MBLK** TestCode: **M_ICPMS_S** Units: **mg/L** Prep Date: **8/11/2004** Run ID: **ICPMS-2_040811B**
Client ID: **ZZZZZ** Batch ID: **10403** TestNo: **SW1312/6020** Analysis Date: **8/11/2004** SeqNo: **267381**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.00142	0.0020									J

Sample ID **0408145-003AMS** SampType: **MS** TestCode: **M_ICPMS_S** Units: **mg/L** Prep Date: **8/11/2004** Run ID: **ICPMS-2_040811B**
Client ID: **HAS-CF04C-001** Batch ID: **10403** TestNo: **SW1312/6020** Analysis Date: **8/11/2004** SeqNo: **267386**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5211	0.0020	0.5	0.00109	104	75	125	0	0		

Sample ID **0408145-003AMSD** SampType: **MSD** TestCode: **M_ICPMS_S** Units: **mg/L** Prep Date: **8/11/2004** Run ID: **ICPMS-2_040811B**
Client ID: **HAS-CF04C-001** Batch ID: **10403** TestNo: **SW1312/6020** Analysis Date: **8/11/2004** SeqNo: **267387**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5353	0.0020	0.5	0.00109	107	75	125	0.5211	2.69	20	

Sample ID **IMBW1 8/11/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **8/11/2004** Run ID: **ICPMS-2_040811B**
Client ID: **ZZZZZ** Batch ID: **10403** TestNo: **SW6020** Analysis Date: **8/11/2004** SeqNo: **267379**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.0020									

Sample ID **ILCSW1 8/11/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **8/11/2004** Run ID: **ICPMS-2_040811B**
Client ID: **ZZZZZ** Batch ID: **10403** TestNo: **SW6020** Analysis Date: **8/11/2004** SeqNo: **267380**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5112	0.0020	0.5	0	102	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

August 20, 2004

Joan Gonzalez
Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0408431

Dear Joan Gonzalez:

STAT Analysis received 1 sample for the referenced project on 7/28/2004. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: August 20, 2004

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0408431

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0408431-001A	HAS-CF03-002	6'-7'	7/28/2004 8:20:00 AM	7/28/2004

STAT Analysis Corporation

Date: *August 20, 2004*

CLIENT:	Burns & McDonnell
Project:	29168, Peoples Gas-Hawthorne Regulator Statio
Lab Order:	0408431

CASE NARRATIVE

Sample HAS-CF03-002 (0408431-001A) was formerly assigned STAT Sample ID 0408145-001A.

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: August 20, 2004
Print Date: August 20, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF03-002
Lab Order:	0408431	**Tag Number:**	6'-7'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:20:00 AM
Lab ID:	0408431-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
SPLP Metals by ICP/MS		**SW1312/6020**	**(SW3005A)**	Prep Date:	**8/18/2004**	Analyst: **BJA**
Lead	0.017	0.004		mg/L	2	8/18/2004
TCLP Metals by ICP/MS		**SW1311/6020**	**(SW3005A)**	Prep Date:	**8/18/2004**	Analyst: **BJA**
Lead	17	0.01		mg/L	5	8/18/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

0408431

Craig

From: "Diane Saftic" <dsaftic@burnsmcd.com>
To: <CChawla@STATAnalysis.com>
Sent: Monday, August 16, 2004 12:33 PM
Subject: Re: 29168, Peoples Gas-Hawthorne Regulator Station

Hi Craig,

0408145-001

Thank you for the analytical report. Please reanalyze HAS-CF03-002 for SPLP and TCLP Lead. We would appreciate a 5-day TAT. If you have any questions, please let me know.

Thanks,
Diane Saftic, P.E.
Burns & McDonnell
2601 West 22nd Street
Oak Brook, Illinois 60523
(630) 990-0302 ext. 277

>>> "Craig Chawla" <CChawla@STATAnalysis.com> 8/13/2004 11:41:54 AM
>>>
Diane:

Attached is the report containing additional analysis for the 29168, Peoples Gas-Hawthorne Regulator Station project received 7/28/04.

Craig Chawla
STAT Analysis Corporation
(312) 563-0371

The information contained in this e-mail message and any attachments is
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e-mail at the originating address.

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: (312) 563-0371

Document Control No: HAS-024-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type Matrix: Liquid	Sample Type Matrix: Solid	Sample Type Matrix: Gas	Number of Containers	Parameter/Method Code: TCL VOCs	TCL SVOCs	PAHs (8270 SIM)	Priority Pollutant Metals	Total Cyanide			Remarks
HAS	CF03	001	–	–	7	8	7/28/04	0800		X		5	X	X	X	X	X			001
HAS	CF03	002	–	–	6	7	7/28/04	0820		X		5	X	X	X	X	X			002
HAS	CF02	001	–	–	6	7	7/28/04	0830		X		5	X	X	X	X	X			003
HAS	CF04D	001	–	–	3	4	7/28/04	0940		X		5	X	X	X	X	X			004
HAS	CF04C	001	–	–	7	8	7/28/04	1015		X		5	X	X	X	X	X			005
HAS	CF05C	001	–	–	9	10	7/28/04	1050		X		5	X	X	X	X	X			006
HAS	CF06B	001	–	–	9	10	7/28/04	1240		X		5	X	X	X	X	X			007
HAS	CF07	001	–	–	8	9	7/28/04	1330		X		5	X	X	X	X	X			008
HAS	CF06E	001	–	–	5	6	7/28/04	~~1400~~ 1400 bus		X		5	X	X	X	X	X			009

7/28/04

PLEASE FIND: 1 COOLER

Sampler (signature): [signature]
Sampler (signature):
Custody Seal Number: 072804STAT-001, 072804STAT-002
Special Instructions: 5 DAY TAT!

Relinquished By (signature): 1. [signature] Date/Time: 7/28/04 1545
Received By (signature): [signature] Date/Time: 7/28/04 16:55
Relinquished By (signature): 2. Date/Time:
Received By (signature): Date/Time:

Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt: 6
Laboratory Comments: 0407459

061301 Form WCD-KC1-CHI

STAT Analysis Corporation

Sample Receipt Checklist

Client Name B&M

Work Order Numbe 0407459

Date and Time Received: 07/28/2004

Received by JC

Checklist completed b [signature] 7/28/04 (Signature, Date)

Reviewed by CC 8/4/04 (Initials, Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 4 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☐	No ☐	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **8/18/2004 11:00:00**
Prep End Date: **8/19/2004 2:50:00 P**

Prep Batch **10530** Prep Code: **M_W_PREP** Technician: **JG**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBW1 8/18/04			50	0	0	50	1.000	8/18/2004	8/18/2004
ILCSW1 8/18/04			50	0	0	50	1.000	8/18/2004	8/18/2004
0408343-023B	Water		50	0	0	50	1.000	8/18/2004	8/18/2004
0408343-024B	Water		50	0	0	50	1.000	8/18/2004	8/18/2004
0408343-025B	Water		50	0	0	50	1.000	8/18/2004	8/18/2004
0408343-023BMS	Water		50	0	0	50	1.000	8/18/2004	8/18/2004
0408343-023BMSD	Water		50	0	0	50	1.000	8/18/2004	8/18/2004
IMBTCLP1 8/17/04			50	0	0	50	1.000	8/18/2004	8/18/2004
0407493-012A	Soil		50	0	0	50	1.000	8/18/2004	8/18/2004
0407493-012AMS	Soil		50	0	0	50	1.000	8/18/2004	8/18/2004
0408407-001A	Shingles		50	0	0	50	1.000	8/18/2004	8/18/2004
0408407-001AMS	Shingles		50	0	0	50	1.000	8/18/2004	8/18/2004
0408408-001A	Shingles		50	0	0	50	1.000	8/18/2004	8/18/2004
0408392-001B	Soil		50	0	0	50	1.000	8/18/2004	8/18/2004
PbLCSW1 8/18/04			50	0	0	50	1.000	8/18/2004	8/18/2004
0407494-017A	Soil		50	0	0	50	1.000	8/18/2004	8/18/2004
0408431-001A	Soil		50	0	0	50	1.000	8/18/2004	8/18/2004
IMBSPLP 8/17/04			50	0	0	50	1.000	8/18/2004	8/18/2004
0408431-001AMS	Soil		50	0	0	50	1.000	8/18/2004	8/18/2004
0408430-012B	Water		50	0	0	50	1.000	8/19/2004	8/19/2004
0408430-013B	Water		50	0	0	50	1.000	8/19/2004	8/19/2004
IMBTCLP 8/18/04			50	0	0	50	1.000	8/19/2004	8/19/2004
0408450-001A	Debris		50	0	0	50	1.000	8/19/2004	8/19/2004
0408450-001AMS	Debris		50	0	0	50	1.000	8/19/2004	8/19/2004

STAT Analysis Corporation Date: *August 20, 2004*

CLIENT: Burns & McDonnell
Work Order: 0408431
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10530

Sample ID **IMBW1 8/18/04** SampType: **MBLK** TestCode: **Lead-tclp** Units: **mg/L** Prep Date: **8/18/2004** Run ID: **FLAA_040818A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW1311/7420** Analysis Date: **8/18/2004** SeqNo: **270026**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.50									*

Sample ID **IMBTCLP 8/17/04** SampType: **MBLK** TestCode: **Lead-tclp** Units: **mg/L** Prep Date: **8/18/2004** Run ID: **FLAA_040818A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW1311/7420** Analysis Date: **8/18/2004** SeqNo: **270027**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.50									*

Sample ID **IMBTCLP 8/18/04** SampType: **MBLK** TestCode: **Lead-tclp** Units: **mg/L** Prep Date: **8/19/2004** Run ID: **FLAA_040819A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW1311/7420** Analysis Date: **8/19/2004** SeqNo: **270708**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.50									*

Sample ID **PbLCSW1 8/18/04** SampType: **LCS** TestCode: **Lead-tclp** Units: **mg/L** Prep Date: **8/18/2004** Run ID: **FLAA_040818A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW1311/7420** Analysis Date: **8/18/2004** SeqNo: **270031**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.121	0.50	1	0	112	80	120	0	0		*

Sample ID **0408407-001AMS** SampType: **MS** TestCode: **Lead-tclp** Units: **mg/L** Prep Date: **8/18/2004** Run ID: **FLAA_040818A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW1311/7420** Analysis Date: **8/18/2004** SeqNo: **270029**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.948	0.50	1	0.854	109	80	120	0	0		*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0408431
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10530

Sample ID 0408450-001AMS SampType: MS TestCode: Lead-tclp Units: mg/L Prep Date: 8/19/2004 Run ID: FLAA_040819A
Client ID: ZZZZZ Batch ID: 10530 TestNo: SW1311/7420 Analysis Date: 8/19/2004 SeqNo: 270710

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.18	0.50	1	0	118	80	120	0	0		*

Sample ID PBLCSW1 8/18/04 SampType: LCS TestCode: LEAD-WATE Units: mg/Kg Prep Date: 8/18/2004 Run ID: FLAA_040819A
Client ID: ZZZZZ Batch ID: 10530 TestNo: SW7420 Analysis Date: 8/19/2004 SeqNo: 270914

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.131	0.50	1	0	113	80	120	0	0		

Sample ID IMBSPLP 8/17/04 SampType: MBLK TestCode: M_ICPMS_S Units: mg/L Prep Date: 8/18/2004 Run ID: ICPMS_040818A
Client ID: ZZZZZ Batch ID: 10530 TestNo: SW1312/6020 Analysis Date: 8/18/2004 SeqNo: 270209

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.0027	0.0040									J

Sample ID 0408431-001AMS SampType: MS TestCode: M_ICPMS_S Units: mg/L Prep Date: 8/18/2004 Run ID: ICPMS_040818A
Client ID: HAS-CF03-002 Batch ID: 10530 TestNo: SW1312/6020 Analysis Date: 8/18/2004 SeqNo: 270211

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.53	0.0040	0.5	0.01673	103	75	125	0	0		

Sample ID IMBTCLP1 8/17/04 SampType: MBLK TestCode: M_ICPMS_T+ Units: mg/L Prep Date: 8/18/2004 Run ID: ICPMS-2_040818A
Client ID: ZZZZZ Batch ID: 10530 TestNo: SW1311/6020 Analysis Date: 8/18/2004 SeqNo: 270245

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.0050									

Sample ID 0407493-012AMS SampType: MS TestCode: M_ICPMS_T+ Units: mg/L Prep Date: 8/18/2004 Run ID: ICPMS-2_040818A
Client ID: ZZZZZ Batch ID: 10530 TestNo: SW1311/6020 Analysis Date: 8/18/2004 SeqNo: 270247

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0408431
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10530

Sample ID **0407493-012AMS** SampType: **MS** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **8/18/2004** Run ID: **ICPMS-2_040818A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW1311/6020** Analysis Date: **8/18/2004** SeqNo: **270247**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.089	0.0050	0.5	0.6106	95.7	75	125	0	0		

Sample ID **IMBW1 8/18/04** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **8/18/2004** Run ID: **ICPMS-2_040818A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW6020** Analysis Date: **8/18/2004** SeqNo: **270244**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.0020									

Sample ID **ILCSW1 8/18/04** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **8/18/2004** Run ID: **ICPMS_040818A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW6020** Analysis Date: **8/18/2004** SeqNo: **270189**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5176	0.0040	0.5	0	104	80	120	0	0		

Sample ID **0408343-023BMS** SampType: **MS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **8/18/2004** Run ID: **ICPMS_040818A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW6020** Analysis Date: **8/18/2004** SeqNo: **270197**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5191	0.0040	0.5	0.00422	103	75	125	0	0		

Sample ID **0408343-023BMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **8/18/2004** Run ID: **ICPMS_040818A**
Client ID: **ZZZZZ** Batch ID: **10530** TestNo: **SW6020** Analysis Date: **8/18/2004** SeqNo: **270198**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5194	0.0040	0.5	0.00422	103	75	125	0.5191	0.0578	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

September 15, 2004

Burns & McDonnell
2601 W. 22nd Street
OakBrook, IL 60523-1229
Telephone: (630) 990-0300
Fax: (630) 990-0301

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0409134

Dear Joan Gonzalez:

STAT Analysis received 1 sample for the referenced project on 8/31/2004. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

STAT Analysis Corporation

Date: September 15, 200

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0409134

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0409134-001A	HAS-CF03-002	6'-7'	7/28/2004 8:20:00 AM	8/31/2004

STAT Analysis Corporation

Date: *September 15, 2004*

CLIENT:	Burns & McDonnell	**CASE NARRATIVE**
Project:	29168, Peoples Gas-Hawthorne Regulator Statio	
Lab Order:	0409134	

Sample HAS-CF03-002 (0409134-001A) was formerly assigned STAT Sample ID 0408145-001A.

STAT Analysis Corporation
2201 West Campbell Park Drive Chicago, IL 60612-3547
Tel: (312) 563-0371 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: September 15, 2004
Print Date: September 15, 2004

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF03-002
Lab Order:	0409134	**Tag Number:**	6'-7'
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	7/28/2004 8:20:00 AM
Lab ID:	0409134-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **9/7/2004**		Analyst: **BJA**
Lead	4.5	0.005		mg/L	5	9/7/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

Burns & McDonnell

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
2601 W. 22nd St
Oak Brook, Illinois 60523
Phone: (630) 990-0300 Fax: (630) 990-0301

Attention: JOAN GONZALEZ

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/Zip: CHICAGO, IL 60612
Telephone: (312) 563-0371

Document Control No: HAS-024-2004
Lab. Reference No. or Episode No.:

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected		Sample Type Matrix			Number of Containers	Parameter/Method Code							Remarks
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time	Liquid	Solid	Gas		TCL VOCs	TCL SVOCs	PAHs (8270 SIM)	PRIORITY POLLUTANT METALS	TOTAL CYANIDE			
HAS	CF03	001	–	–	7	8	7/28/04	0800		X		5	X	X	X	X	X			001
HAS	CF03	002	–	–	6	7	7/28/04	0820		X		5	X	X	X	X	X			002
HAS	CF02	001	–	–	6	7	7/28/04	0830		X		5	X	X	X	X	X			003
HAS	CF04D	001	–	–	3	4	7/28/04	0940		X		5	X	X	X	X	X			004
HAS	CF04C	001	–	–	7	8	7/28/04	1015		X		5	X	X	X	X	X			005
HAS	CF05C	001	–	–	9	10	7/28/04	1050		X		5	X	X	X	X	X			006
HAS	CF06B	001	–	–	9	10	7/28/04	1240		X		5	X	X	X	X	X			007
HAS	CF07	001	–	–	8	9	7/28/04	1330		X		5	X	X	X	X	X			008
HAS	CF06E	001	–	–	5	6	7/28/04	~~1300~~ 1400 DVS		X		5	X	X	X	X	X			009

7/28/04

PLEASE FIND: 1 COOLER

Sampler (signature): D Scott

Sampler (signature):

Custody Seal Number
072804STAT-001
072804STAT-002

Special Instructions: 5 DAY TAT!

Relinquished By (signature): 1. D Scott — Date/Time 7/28/04 1545

Received By (signature): [illegible] — Date/Time 7/28/04 16:55

Relinquished By (signature): 2. — Date/Time

Received By (signature): — Date/Time

Ice Present in Container: Yes ☒ No ☐

Temperature Upon Receipt: 6°

Laboratory Comments: 0407459

061301 Form WCD-KC1-CHI

STAT Analysis Corporation

Sample Receipt Checklist

Client Name B&M

Work Order Numbe 0407459

Date and Time Received: 07/28/2004

Received by JC

Checklist completed b [signature] 7/28/04 (Signature / Date)

Reviewed by CC 8/4/04 (Initials / Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 4 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☐	No ☐	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **09/07/04 07:45:00**
Prep End Date: **09/07/04 15:00:00**

Prep Batch **10842** Prep Code: **M_W_PREP** Technician: **DGI**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0409019-003A	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409019-008A	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409027-001A	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-002B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-003B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-004B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-005B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-006B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-007B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-008B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-009B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-010B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-011B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409058-012B	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409092-001B	Water		50	0	0	50	1.000	09/07/04	09/07/04
0409092-001BMS	Water		50	0	0	50	1.000	09/07/04	09/07/04
0409092-001BMSD	Water		50	0	0	50	1.000	09/07/04	09/07/04
0409134-001A	Soil		50	0	0	50	1.000	09/07/04	09/07/04
0409134-001AMS	Soil		50	0	0	50	1.000	09/07/04	09/07/04
ILCSW1 9/7/04			50	0	0	50	1.000	09/07/04	09/07/04
IMBTCLP1 9/3/04			50	0	0	50	1.000	09/07/04	09/07/04
IMBW1 9/7/04			50	0	0	50	1.000	09/07/04	09/07/04

CLIENT: Burns & McDonnell
Work Order: 0409134
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 10842

Sample ID **0409092-001BMSD** SampType: **MSD** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **09/07/04** Run ID: **ICPMS-2_040907A**
Client ID: **ZZZZZ** Batch ID: **10842** TestNo: **SW6020** Analysis Date: **09/07/04** SeqNo: **278825**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5558	0.0020	0.5	0.0384	103	75	125	0.5498	1.09	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

STAT Analysis Corporation
2255 West Harrison St., Suite B, Chicago, IL 60612-3505
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

June 20, 2005

Burns & McDonnell
1431 Opus Place
Suite 400
Downers Grove, IL 60515
Telephone: (630) 724-3200
Fax: (630) 724-3201

RE: 29168, Peoples Gas- Hawthorne Regulator STAT Project No: 0506567

Dear Joan Gonzalez:

STAT Analysis received 1 sample for the referenced project on 6/17/2005. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

CC:
Diane Saftic

STAT Analysis Corporation

Date: June 20, 2005

Client: Burns & McDonnell
Project: 29168, Peoples Gas- Hawthorne Regulator
Lab Order: 0506567

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0506567-001A	HAS-CF08-001		6/17/2005	6/17/2005

STAT Analysis Corporation

Date: *June 20, 2005*

CLIENT:	Burns & McDonnell
Project:	29168, Peoples Gas- Hawthorne Regulator
Lab Order:	0506567

CASE NARRATIVE

Sample HAS-CF08-001 (0506567-001) is a composite of the following samples:
HAS-NW08-001 (0506566-001)
HAS-SW08-001 (0506566-002)
HAS-WW08-001 (0506566-003)
HAS-EW08-001 (0506566-004)
HAS-Floor08-001 (0506566-005)

STAT Analysis Corporation
2255 West Harrison St., Suite B, Chicago, IL 60612-3505
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Report Date: June 20, 2005
Print Date: June 20, 2005

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-CF08-001
Lab Order:	0506567	**Tag Number:**	
Project:	29168, Peoples Gas- Hawthorne Regulator	**Collection Date:**	6/17/2005
Lab ID:	0506567-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **6/20/2005**		Analyst: **JG**
Lead	3300	0.63		mg/Kg-dry	10	6/20/2005
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **6/18/2005**		Analyst: **JG**
Lead	3	0.0075		mg/L	5	6/20/2005
Percent Moisture	**D2974**			Prep Date: **6/17/2005**		Analyst: **JG**
Percent Moisture	23.0	0.01	*	wt%	1	6/18/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

Burns & McDonnell SINCE 1895

Request for Chemical Analysis and Chain of Custody Record

24-HR TAT!

Burns & McDonnell Engineering
1431 Opus Place
Downers Grove, Illinois 60515
Phone: (630) 724-3200 Fax: (630) 724-3201

Attention: JOAN GONZALEZ / DIANE SAFTIC

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/ZIP: CHICAGO, IL 60612
Telephone: (312) 773-0551

Document Control No.: HAS-002-2005
Lab. Reference No. or Episode No.: ~~05 06564~~ 0506566 0506567

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: TOTAL LEAD	Parameter/Method Code: TCLP LEAD					Remarks
HAS -	NW08 -	001	—	—	4	8	6/17/05	1025		X		1	X	X					HOLD 001 0506567
HAS -	SW08 -	001	—	—	4	8	6/17/05	1010		X		1	X	X					HOLD 002
HAS -	WW08 -	001	—	—	4	8	6/17/05	1020		X		1	X	X					HOLD 003
HAS -	EW08 -	001	—	—	4	8	6/17/05	1015		X		1	X	X					HOLD 004
HAS -	FLOOR08 -	001	—	—	8	8	6/17/05	1005		X		1	X	X					HOLD 005
HAS -	CF08 -	001	—	—	—	—	6/17/05	—		X		1	X	X					COMPOSITE SAMPLE IN LAB** 0506568

6/17/05

- PLEASE FIND 1 COOLER

Sampler (signature): [signature]

Sampler (signature):

Custody Seal Number: STAT061705-003, STAT061705-004

Special Instructions: 24-HR TAT! ** COMPOSITE SAMPLE IN LAB USING ALL SAMPLES COLLECTED (TOTAL = 5 SAMPLES).

Relinquished By (signature): 1. [signature] Date/Time: 6/17/05 1230

Received By (signature): [signature] Date/Time: 6/17/05 1400

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt: 3°

Relinquished By (signature): 2. Date/Time

Received By (signature): Date/Time

Laboratory Comments:

STAT Analysis Corporation

Sample Receipt Checklist

Client Name B&M

Date and Time Received: 06/17/05

Work Order Numbe 0506567

Received by: JC

Checklist completed by: Jesus Cant 6/17/05 (Signature / Date)

Reviewed by: cc 6/20/05 (Initials / Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples properly preserved/ pH checked?	Yes ☐	No ☐	

Adjusted? Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted Date contacted: Person contacted

Contacted by: Regarding

Comments:

Corrective Action

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/18/2005 10:30:00**
Prep End Date: **6/18/2005 4:30:00 P**

Prep Batch **14968** Prep Code: **M_W_PREP** Technician: **JG**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0506174-006A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506174-008A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506174-041A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506174-044A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506204-001A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506204-002A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506204-011A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506204-012A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506204-014A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506335-005B	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506335-005Bms	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506335-012B	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506335-018B	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506375-001A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506375-001AMS	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506468-003A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506468-003AMS	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506468-003AMSD	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506468-004A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
0506481-001A	Soil		50	0	0	50	1.000	6/17/2005	6/17/2005
ILCSW2 6/17/05			50	0	0	50	1.000	6/17/2005	6/17/2005
IMBSPLP 6/16/05			50	0	0	50	1.000	6/17/2005	6/17/2005
IMBTCLP1 6/16/05			50	0	0	50	1.000	6/17/2005	6/17/2005
IMBTCLP2 6/16/05			50	0	0	50	1.000	6/17/2005	6/17/2005
IMBW2 6/17/05			50	0	0	50	1.000	6/17/2005	6/17/2005

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/20/2005 10:30:00**
Prep End Date: **6/20/2005 1:25:00 P**

Prep Factor Units: **mL / g**

Prep Batch **14994** Prep Code: **M_S_PREP** Technician: **DGI**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBS1 6/20/05			1	0	0	50	50.000	6/20/2005	6/20/2005
ILCSS1 6/20/05			1	0	0	50	50.000	6/20/2005	6/20/2005
0506388-001A	Soil		1.042	0	0	50	47.985	6/20/2005	6/20/2005
0506388-002A	Soil		1.075	0	0	50	46.512	6/20/2005	6/20/2005
0506388-003A	Soil		1.036	0	0	50	48.263	6/20/2005	6/20/2005
0506388-004A	Soil		1.052	0	0	50	47.529	6/20/2005	6/20/2005
0506388-005A	Soil		1.025	0	0	50	48.780	6/20/2005	6/20/2005
0506388-006A	Soil		1.071	0	0	50	46.685	6/20/2005	6/20/2005
0506388-007A	Soil		1.031	0	0	50	48.497	6/20/2005	6/20/2005
0506388-008A	Soil		1.006	0	0	50	49.702	6/20/2005	6/20/2005
0506388-009A	Soil		1.043	0	0	50	47.939	6/20/2005	6/20/2005
0506401-016A	Soil		1.069	0	0	50	46.773	6/20/2005	6/20/2005
0506464-001B	Soil		1.057	0	0	50	47.304	6/20/2005	6/20/2005
0506464-003B	Soil		1.005	0	0	50	49.751	6/20/2005	6/20/2005
0506464-005B	Soil		1.022	0	0	50	48.924	6/20/2005	6/20/2005
0506527-001B	Soil		1.041	0	0	50	48.031	6/20/2005	6/20/2005
0506537-001A	Soil		1.058	0	0	50	47.259	6/20/2005	6/20/2005
0506537-002A	Soil		1.032	0	0	50	48.450	6/20/2005	6/20/2005
0506563-001B	Soil		1.009	0	0	50	49.554	6/20/2005	6/20/2005
0506567-001A	Soil		1.031	0	0	50	48.497	6/20/2005	6/20/2005
0506568-001B	Soil		1.05	0	0	50	47.619	6/20/2005	6/20/2005
0506568-001BMS	Soil		1.033	0	0	50	48.403	6/20/2005	6/20/2005
0506568-001BMSD	Soil		1.019	0	0	50	49.068	6/20/2005	6/20/2005
0506322-001A	Soild		0.802	0	0	50	62.344	6/20/2005	6/20/2005

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/18/2005 10:30:00**
Prep End Date: **6/18/2005 4:30:00 P**

Prep Factor Units:
mL / mL

Prep Batch **14968** Prep Code: **M_W_PREP** Technician: **JG**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBTCLP1 6/17/05			50	0	0	50	1.000	6/18/2005	6/18/2005
0506564-001A	Soil		50	0	0	50	1.000	6/18/2005	6/18/2005
0506565-001A	Solid		50	0	0	50	1.000	6/18/2005	6/18/2005
0506567-001A	Soil		50	0	0	50	1.000	6/18/2005	6/18/2005
0506565-001AMS	Solid		50	0	0	50	1.000	6/18/2005	6/18/2005

STAT Analysis Corporation Date: *June 20, 2005*

CLIENT: Burns & McDonnell
Work Order: 0506567
Project: 29168, Peoples Gas- Hawthorne Regulator

ANALYTICAL QC SUMMARY REPORT

BatchID: 14968

Sample ID **IMBTCLP1 6/17/05** SampType: **MBLK** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **6/18/2005** Run ID: **ICPMS-2_050620A**
Client ID: **ZZZZZ** Batch ID: **14968** TestNo: **SW1311/6020** Analysis Date: **6/20/2005** SeqNo: **416979**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.00593	0.0075									J

Sample ID **0506565-001AMS** SampType: **MS** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **6/18/2005** Run ID: **ICPMS-2_050620A**
Client ID: **ZZZZZ** Batch ID: **14968** TestNo: **SW1311/6020** Analysis Date: **6/20/2005** SeqNo: **416982**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5919	0.0075	0.5	0.01181	116	75	125	0	0		

Sample ID **0506468-003AMS** SampType: **MS** TestCode: **M_ICPMS_T+** Units: **µg/L** Prep Date: **6/17/2005** Run ID: **ICPMS-2_050617A**
Client ID: **ZZZZZ** Batch ID: **14968** TestNo: **SW1311/6020** Analysis Date: **6/17/2005** SeqNo: **415357**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1128	75	500	506.3	124	75	125	0	0		

Sample ID **0506468-003AMSD** SampType: **MSD** TestCode: **M_ICPMS_T+** Units: **µg/L** Prep Date: **6/17/2005** Run ID: **ICPMS-2_050617A**
Client ID: **ZZZZZ** Batch ID: **14968** TestNo: **SW1311/6020** Analysis Date: **6/17/2005** SeqNo: **415358**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1118	75	500	506.3	122	75	125	1128	0.890	20	

Sample ID **IMBW2 6/17/05** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/17/2005** Run ID: **ICPMS-2_050617A**
Client ID: **ZZZZZ** Batch ID: **14968** TestNo: **SW6020** Analysis Date: **6/17/2005** SeqNo: **415356**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.00122	0.0020									J

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0506567
Project: 29168, Peoples Gas- Hawthorne Regulator

ANALYTICAL QC SUMMARY REPORT

BatchID: 14968

Sample ID **ILCSW2 6/17/05** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/17/2005** Run ID: **ICPMS-2_050617A**
Client ID: **ZZZZZ** Batch ID: **14968** TestNo: **SW6020** Analysis Date: **6/17/2005** SeqNo: **415351**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5061	0.0020	0.5	0.00122	101	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0506567
Project: 29168, Peoples Gas- Hawthorne Regulator

ANALYTICAL QC SUMMARY REPORT

BatchID: 14994

Sample ID	IMBS1 6/20/05	SampType:	MBLK	TestCode:	M_ICPMS_S	Units:	mg/Kg	Prep Date:	6/20/2005	Run ID:	ICPMS-2_050620A
Client ID:	ZZZZZ	Batch ID:	14994	TestNo:	SW6020			Analysis Date:	6/20/2005	SeqNo:	417010

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.1175	0.25									J

Sample ID	ILCSS1 6/20/05	SampType:	LCS	TestCode:	M_ICPMS_S	Units:	mg/Kg	Prep Date:	6/20/2005	Run ID:	ICPMS-2_050620A
Client ID:	ZZZZZ	Batch ID:	14994	TestNo:	SW6020			Analysis Date:	6/20/2005	SeqNo:	417012

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	27.94	0.25	25	0.1175	111	80	120	0	0		

Sample ID	0506568-001BMS	SampType:	MS	TestCode:	M_ICPMS_S	Units:	mg/Kg-dry	Prep Date:	6/20/2005	Run ID:	ICPMS-2_050620A
Client ID:	ZZZZZ	Batch ID:	14994	TestNo:	SW6020			Analysis Date:	6/20/2005	SeqNo:	417029

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	53.9	0.56	28.17	20.29	119	75	125	0	0		

Sample ID	0506568-001BMSD	SampType:	MSD	TestCode:	M_ICPMS_S	Units:	mg/Kg-dry	Prep Date:	6/20/2005	Run ID:	ICPMS-2_050620A
Client ID:	ZZZZZ	Batch ID:	14994	TestNo:	SW6020			Analysis Date:	6/20/2005	SeqNo:	417030

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	54.59	0.57	28.56	20.29	120	75	125	53.9	1.27	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0506567
Project: 29168, Peoples Gas- Hawthorne Regulator

ANALYTICAL QC SUMMARY REPORT

BatchID: R18943

Sample ID **PMMBLK2 6/17/05** SampType: **MBLK** TestCode: **PMOIST** Units: **wt%** Prep Date: **6/17/2005** Run ID: **BALANCE_050617B**
Client ID: **ZZZZZ** Batch ID: **R18943** TestNo: **D2974** Analysis Date: **6/18/2005** SeqNo: **415415**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	ND	0.0100									*

Sample ID **PMLCS-S2 6/17/05** SampType: **LCS** TestCode: **PMOIST** Units: **wt%** Prep Date: **6/17/2005** Run ID: **BALANCE_050617B**
Client ID: **ZZZZZ** Batch ID: **R18943** TestNo: **D2974** Analysis Date: **6/18/2005** SeqNo: **415416**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	4.93	0.0100	5	0	98.6	80	120	0	0		*

Sample ID **PMLCS-W2 6/17/05** SampType: **LCS** TestCode: **PMOIST** Units: **wt%** Prep Date: **6/17/2005** Run ID: **BALANCE_050617B**
Client ID: **ZZZZZ** Batch ID: **R18943** TestNo: **D2974** Analysis Date: **6/18/2005** SeqNo: **415417**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	99.81	0.0100	99.8	0	100	80	120	0	0		*

Sample ID **0506567-001ADUP** SampType: **DUP** TestCode: **PMOIST** Units: **wt%** Prep Date: **6/17/2005** Run ID: **BALANCE_050617B**
Client ID: **HAS-CF08-001** Batch ID: **R18943** TestNo: **D2974** Analysis Date: **6/18/2005** SeqNo: **415438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	23.14	0.0100	0	0	0	0	0	23.01	0.563	20	*

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

STAT Analysis Corporation
2255 West Harrison St., Suite B, Chicago, IL 60612-3505
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

June 21, 2005

Burns & McDonnell
1431 Opus Place
Suite 400
Downers Grove, IL 60515
Telephone: (630) 724-3200
Fax: (630) 724-3201

RE: 29168, Peoples Gas-Hawthorne Regulator STAT Project No: 0506566

Dear Joan Gonzalez:

STAT Analysis received 5 samples for the referenced project on 6/17/2005. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

CC:
Diane Saftic

STAT Analysis Corporation

Date: June 21, 2005

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator
Lab Order: 0506566

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0506566-001A	HAS-NW08-001	4-8'	6/17/2005 10:25:00 AM	6/17/2005
0506566-002A	HAS-SW08-001	4-8'	6/17/2005 10:10:00 AM	6/17/2005
0506566-003A	HAS-WW08-001	4-8'	6/17/2005 10:20:00 AM	6/17/2005
0506566-004A	HAS-EW08-001	4-8'	6/17/2005 10:15:00 AM	6/17/2005
0506566-005A	HAS-FLOOR08-001	4-8'	6/17/2005 10:05:00 AM	6/17/2005

STAT Analysis Corporation
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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Date Reported: June 21, 2005
Date Printed: June 21, 2005

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator **Lab Order:** 0506566

Lab ID: 0506566-001 **Collection Date:** 6/17/2005 10:25:00 AM
Client Sample ID: HAS-NW08-001 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	4500	2.7		mg/Kg-dry	10	6/21/2005
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	5.5	0.005		mg/L	5	6/21/2005
Percent Moisture	**D2974**			Prep Date: **6/20/2005**		Analyst: **JC**
Percent Moisture	30.5	0.01	*	wt%	1	6/21/2005

Lab ID: 0506566-002 **Collection Date:** 6/17/2005 10:10:00 AM
Client Sample ID: HAS-SW08-001 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	32	2.3		mg/Kg-dry	10	6/21/2005
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	0.34	0.005		mg/L	5	6/21/2005
Percent Moisture	**D2974**			Prep Date: **6/20/2005**		Analyst: **JC**
Percent Moisture	15.7	0.01	*	wt%	1	6/21/2005

Lab ID: 0506566-003 **Collection Date:** 6/17/2005 10:20:00 AM
Client Sample ID: HAS-WW08-001 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	340	0.79		mg/Kg-dry	10	6/21/2005
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	0.18	0.005		mg/L	5	6/21/2005
Percent Moisture	**D2974**			Prep Date: **6/20/2005**		Analyst: **JC**
Percent Moisture	38.1	0.01	*	wt%	1	6/21/2005

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
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Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

Date Reported: June 21, 2005
Date Printed: June 21, 2005

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator
Lab Order: 0506566

Lab ID: 0506566-004
Client Sample ID: HAS-EW08-001
Collection Date: 6/17/2005 10:15:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	810	0.67		mg/Kg-dry	10	6/21/2005
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	6.2	0.005		mg/L	5	6/21/2005
Percent Moisture	**D2974**			Prep Date: **6/20/2005**		Analyst: **JC**
Percent Moisture	27.1	0.01	*	wt%	1	6/21/2005

Lab ID: 0506566-005
Client Sample ID: HAS-FLOOR08-001
Collection Date: 6/17/2005 10:05:00 AM
Matrix: Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	44	0.61		mg/Kg-dry	10	6/21/2005
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **6/21/2005**		Analyst: **JG**
Lead	0.021	0.005		mg/L	5	6/21/2005
Percent Moisture	**D2974**			Prep Date: **6/20/2005**		Analyst: **JC**
Percent Moisture	22.4	0.01	*	wt%	1	6/21/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

24-HR TAT!

Burns & McDonnell Engineering
1431 Opus Place
Downers Grove, Illinois 60515
Phone: (630) 724-3200 Fax: (630) 724-3201

Attention: JOAN GONZALEZ / DIANE SAFTIC

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/ZIP: CHICAGO, IL 60612
Telephone: (312) 773-0551

Document Control No.: HAS-002-2005
Lab. Reference No. or Episode No.: ~~0506564~~ 0506566 0506567

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: TOTAL LEAD	Parameter/Method Code: TCLP LEAD					Remarks
HAS -	NW08 -	001	—	—	4	8	6/17/05	1025		X		1	X	X					HOLD 001 0506567
HAS -	SW08 -	001	—	—	4	8	6/17/05	1010		X		1	X	X					HOLD 002
HAS -	WW08 -	001	—	—	4	8	6/17/05	1020		X		1	X	X					HOLD 003
HAS -	EW08 -	001	—	—	4	8	6/17/05	1015		X		1	X	X					HOLD 004
HAS -	FLOOR08 -	001	—	—	8	8	6/17/05	1005		X		1	X	X					HOLD 005
HAS -	CF08 -	001	—	—	—	—	6/17/05	-		X		1	X	X					COMPOSITE SAMPLE IN LAB 0506567

6/17/05

- PLEASE FIND 1 COOLER

Sampler (signature): [signature]
Sampler (signature):
Custody Seal Number: STAT 061705-003, STAT 061705-004

Special Instructions: 24-HR TAT!
** COMPOSITE SAMPLE IN LAB USING ALL SAMPLES COLLECTED (TOTAL = 5 SAMPLES).

Relinquished By (signature): 1. [signature] Date/Time 6/17/05 1230
Received By (signature): [signature] Date/Time 6/17/05 1400
Ice Present in Container: Yes [X] No [ ]
Temperature Upon Receipt: 3°

Relinquished By (signature): 2. Date/Time
Received By (signature): Date/Time

Laboratory Comments:

STAT Analysis Corporation

Sample Receipt Checklist

Client Name B&M

Date and Time Received: 06/17/05

Work Order Numbe 0506566

Received by: JC

Checklist completed by: Jesus Cant (Signature) 6/17/05 (Date)

Reviewed by: (Initials) 6/21/05 (Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ✔	No	Not Present	
Custody seals intact on shippping container/cooler?	Yes ✔	No	Not Present	
Custody seals intact on sample bottles?	Yes	No	Not Present ✔	
Chain of custody present?	Yes ✔	No		
Chain of custody signed when relinquished and received?	Yes ✔	No		
Chain of custody agrees with sample labels?	Yes ✔	No		
Samples in proper container/bottle?	Yes ✔	No		
Sample containers intact?	Yes ✔	No		
Sufficient sample volume for indicated test?	Yes ✔	No		
All samples received within holding time?	Yes ✔	No		
Container or Temp Blank temperature in compliance?	Yes ✔	No	Temperature	3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted	Yes	No	
Water - Samples properly preserved/ pH checked?	Yes	No		

Adjusted? Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted Date contacted: Person contacted

Contacted by: Regarding

Comments:

Corrective Action

Craig

From: "Saftic, Diane" <dsaftic@burnsmcd.com>
To: "Craig Chawla" <CChawla@STATAnalysis.com>
Cc: "Gonzalez, Joan" <jgonzalez@burnsmcd.com>
Sent: Monday, June 20, 2005 5:33 PM
Subject: RE: 29168, Peoples Gas- Hawthorne Regulator 0505567

Hello Craig,

As we discussed, please analyze all of the soil samples (HAS-NW08-001, HAS-SW08-001, HAS-WW08-001, HAS-EW08-001, and HAS-Floor08-001) that were collected at the Hawthorne Regulator Station on 6/17 for total and TCLP lead. We would appreciate a 24-Hr TAT. If you have any questions, please let me know.

Thanks,
Diane Saftic, P.E.
Burns & McDonnell
1431 Opus Place, Suite 400
Downers Grove, Illinois 60515-1164
(630) 724-3269

From: Craig Chawla [mailto:CChawla@STATAnalysis.com]
Sent: Monday, June 20, 2005 5:17 PM
To: Saftic, Diane; Gonzalez, Joan
Subject: 29168, Peoples Gas- Hawthorne Regulator 0505567

Diane:

Attached is the report for the 29168, Peoples Gas- Hawthorne Regulator project received 6/17/05.

Craig Chawla
STAT Analysis Corporation
(312) 563-0371

The information contained in this e-mail message and any attachments is confidential information intended only for the use of the individual or entities named above. If the reader of this message is not the intended recipient you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by e-mail at the originating address.

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/21/2005 12:00:00**
Prep End Date: **6/21/2005 2:50:00 P**

Prep Factor Units:
mL / mL

Prep Batch **15025** Prep Code: **M_W_PREP** Technician: **DGI**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBW2 6/21/05			50	0	0	50	1.000	6/21/2005	6/21/2005
ILCSW2 6/21/05			50	0	0	50	1.000	6/21/2005	6/21/2005
IMBTCLP1 6/20/05			50	0	0	50	1.000	6/21/2005	6/21/2005
0506566-001A	Soil		50	0	0	50	1.000	6/21/2005	6/21/2005
0506566-002A	Soil		50	0	0	50	1.000	6/21/2005	6/21/2005
0506566-003A	Soil		50	0	0	50	1.000	6/21/2005	6/21/2005
0506566-004A	Soil		50	0	0	50	1.000	6/21/2005	6/21/2005
0506566-005A	Soil		50	0	0	50	1.000	6/21/2005	6/21/2005
0506566-003AMS	Soil		50	0	0	50	1.000	6/21/2005	6/21/2005
0506566-003AMSD	Soil		50	0	0	50	1.000	6/21/2005	6/21/2005

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **6/21/2005 8:35:00 A**
Prep End Date: **6/21/2005 12:20:00**

Prep Factor Units: **mL / g**

Prep Batch **15018** Prep Code: **MI_S_PREP** Technician: **DGI**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBS1 6/21/05			1	0	0	50	50.000	6/21/2005	6/21/2005
ILCSS1 6/21/05			1	0	0	50	50.000	6/21/2005	6/21/2005
0506485-001B	Soil		1.069	0	0	50	46.773	6/21/2005	6/21/2005
0506485-002B	Soil		1.055	0	0	50	47.393	6/21/2005	6/21/2005
0506485-003B	Soil		1.084	0	0	50	46.125	6/21/2005	6/21/2005
0506485-004B	Soil		1.064	0	0	50	46.992	6/21/2005	6/21/2005
0506485-005B	Soil		1.049	0	0	50	47.664	6/21/2005	6/21/2005
0506485-006B	Soil		1.078	0	0	50	46.382	6/21/2005	6/21/2005
0506485-007B	Soil		1.067	0	0	50	46.860	6/21/2005	6/21/2005
0506485-008B	Soil		1.029	0	0	50	48.591	6/21/2005	6/21/2005
0506485-009B	Soil		1.037	0	0	50	48.216	6/21/2005	6/21/2005
0506485-010A	Soil		1.016	0	0	50	49.213	6/21/2005	6/21/2005
0506485-011A	Soil		1.026	0	0	50	48.733	6/21/2005	6/21/2005
0506485-012B	Soil		1.016	0	0	50	49.213	6/21/2005	6/21/2005
0506485-013B	Soil		1.029	0	0	50	48.591	6/21/2005	6/21/2005
0506543-001A	Solid		0.0109	0	0	50	4587.156	6/21/2005	6/21/2005
0506566-001A	Soil		1.078	0	0	50	46.382	6/21/2005	6/21/2005
0506566-002A	Soil		1.043	0	0	50	47.939	6/21/2005	6/21/2005
0506566-003A	Soil		1.017	0	0	50	49.164	6/21/2005	6/21/2005
0506566-004A	Soil		1.019	0	0	50	49.068	6/21/2005	6/21/2005
0506566-005A	Soil		1.058	0	0	50	47.259	6/21/2005	6/21/2005
0506485-007BMS	Soil		1.062	0	0	50	47.081	6/21/2005	6/21/2005
0506485-007BMSD	Soil		1.033	0	0	50	48.403	6/21/2005	6/21/2005

STAT Analysis Corporation

Date: *June 21, 2005*

CLIENT: Burns & McDonnell
Work Order: 0506566
Project: 29168, Peoples Gas-Hawthorne Regulator

ANALYTICAL QC SUMMARY REPORT

BatchID: 15018

Sample ID **IMBS1 6/21/05** SampType: **MBLK** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **6/21/2005** Run ID: **ICPMS-2_050621A**
Client ID: **ZZZZZ** Batch ID: **15018** TestNo: **SW6020** Analysis Date: **6/21/2005** SeqNo: **418036**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.261	1.0									J

Sample ID **ILCSS1 6/21/05** SampType: **LCS** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **6/21/2005** Run ID: **ICPMS-2_050621A**
Client ID: **ZZZZZ** Batch ID: **15018** TestNo: **SW6020** Analysis Date: **6/21/2005** SeqNo: **418037**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	27.1	1.0	25	0.261	107	80	120	0	0		

Sample ID **0506485-007BMS** SampType: **MS** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **6/21/2005** Run ID: **ICPMS-2_050621A**
Client ID: **ZZZZZ** Batch ID: **15018** TestNo: **SW6020** Analysis Date: **6/21/2005** SeqNo: **418210**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	48.87	0.47	23.54	27.08	92.6	75	125	0	0		

Sample ID **0506485-007BMSD** SampType: **MSD** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **6/21/2005** Run ID: **ICPMS-2_050621A**
Client ID: **ZZZZZ** Batch ID: **15018** TestNo: **SW6020** Analysis Date: **6/21/2005** SeqNo: **418211**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	49.13	0.48	24.2	27.08	91.1	75	125	48.87	0.528	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

CLIENT: Burns & McDonnell
Work Order: 0506566
Project: 29168, Peoples Gas-Hawthorne Regulator

ANALYTICAL QC SUMMARY REPORT

BatchID: 15025

Sample ID **IMBTCLP1 6/20/05** SampType: **MBLK** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **6/21/2005** Run ID: **ICPMS_050621A**
Client ID: **ZZZZZ** Batch ID: **15025** TestNo: **SW1311/6020** Analysis Date: **6/21/2005** SeqNo: **418193**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.00429	0.0050									J

Sample ID **0506566-003AMS** SampType: **MS** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **6/21/2005** Run ID: **ICPMS_050621A**
Client ID: **HAS-WW08-001** Batch ID: **15025** TestNo: **SW1311/6020** Analysis Date: **6/21/2005** SeqNo: **418197**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.7887	0.0050	0.5	0.1767	122	75	125	0	0		

Sample ID **0506566-003AMSD** SampType: **MSD** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **6/21/2005** Run ID: **ICPMS_050621A**
Client ID: **HAS-WW08-001** Batch ID: **15025** TestNo: **SW1311/6020** Analysis Date: **6/21/2005** SeqNo: **418198**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.7477	0.0050	0.5	0.1767	114	75	125	0.7887	5.34	20	

Sample ID **ILCSW2 6/21/05** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **6/21/2005** Run ID: **ICPMS_050621A**
Client ID: **ZZZZZ** Batch ID: **15025** TestNo: **SW6020** Analysis Date: **6/21/2005** SeqNo: **418192**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5125	0.0020	0.5	0.00183	102	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

STAT Analysis Corporation
2255 West Harrison St., Suite B, Chicago, IL 60612-3505
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 10248; NVLAP LabCode 101202-0

July 01, 2005

Burns & McDonnell
1431 Opus Place
Suite 400
Downers Grove, IL 60515
Telephone: (630) 724-3200
Fax: (630) 724-3201

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0506985

Dear Joan Gonzalez:

STAT Analysis received 2 samples for the referenced project on 6/30/2005. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

CC:
Diane Saftic

STAT Analysis Corporation

Date: July 01, 2005

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0506985

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0506985-001A	HAS-NW08-002	4-8	6/30/2005 12:30:00 PM	6/30/2005
0506985-002A	HAS-EW08-002	4-8	6/30/2005 11:50:00 AM	6/30/2005

STAT Analysis Corporation
2255 West Harrison St., Suite B, Chicago, IL 60612-3505
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 10248; NVLAP LabCode 101202-0

Date Reported: July 01, 2005
Date Printed: July 01, 2005

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station **Lab Order:** 0506985

Lab ID: 0506985-001 **Collection Date:** 6/30/2005 12:30:00 PM
Client Sample ID: HAS-NW08-002 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/1/2005**		Analyst: **JG**
Lead	300	0.63		mg/Kg-dry	10	7/1/2005
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **7/1/2005**		Analyst: **JG**
Lead	0.1	0.005		mg/L	5	7/1/2005
Percent Moisture	**D2974**			Prep Date: **6/30/2005**		Analyst: **PMS**
Percent Moisture	25.0	0.01	*	wt%	1	7/1/2005

Lab ID: 0506985-002 **Collection Date:** 6/30/2005 11:50:00 AM
Client Sample ID: HAS-EW08-002 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals by ICP/MS	**SW6020 (SW3050B)**			Prep Date: **7/1/2005**		Analyst: **JG**
Lead	120	0.6		mg/Kg-dry	10	7/1/2005
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **7/1/2005**		Analyst: **JG**
Lead	0.093	0.005		mg/L	5	7/1/2005
Percent Moisture	**D2974**			Prep Date: **6/30/2005**		Analyst: **PMS**
Percent Moisture	21.7	0.01	*	wt%	1	7/1/2005

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

24-HR TAT!

Burns & McDonnell Engineering
1431 Opus Place
Downers Grove, Illinois 60515
Phone: (630) 724-3200 Fax: (630) 724-3201
Attention: JOAN GONZALEZ / DIANE SAFTIC

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/ZIP: CHICAGO, IL 60612
Telephone: (312) 773-0551

Document Control No.: HAS-003-2005
Lab. Reference No. or Episode No.: 05069985

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected		Sample Type: Matrix			Number of Containers	Parameter/Method Code						Remarks
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time	Liquid	Solid	Gas		TOTAL LEAD	TCLP LEAD					
HAS -	NW08 -	002	-	-	4	8	6/30/05	1230		X		1	X	X					
HAS -	EW08 -	002	-	-	4	8	6/30/05	1150		X		1	X	X					

6/30/05

PLEASE FIND:
1 COOLER

Sampler (signature): D Saftic

Sampler (signature):

Custody Seal Number
STAT063005-001
STAT063005-002

Special Instructions: 24-HR TAT!

Relinquished By (signature): 1. D Saftic
Date/Time: 6/30/05 1400

Received By (signature): [illegible]
Date/Time: 6/30/05 1400

Relinquished By (signature): 2.
Date/Time:

Received By (signature):
Date/Time:

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt: 3°

Laboratory Comments:

STAT Analysis Corporation

Sample Receipt Checklist

Client Name B&M

Date and Time Received: 06/30/2005

Work Order Numbe 0506985

Received by: JC

Checklist completed by: Jesus Cant (Signature) 6/30/05 (Date)

Reviewed by: ca (Initials) 7/1/05 (Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☒	Yes ☐	No ☒
Water - Samples properly preserved/ pH checked?	Yes ☒	No ☒	

Adjusted? Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted Date contacted: Person contacted

Contacted by: Regarding

Comments:

Corrective Action

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **7/1/2005 9:00:00 A**
Prep End Date: **7/1/2005 12:30:00 P**

Prep Factor Units: **mL / g**

Prep Batch **15202** Prep Code: **M_S_PREP** Technician: **JG**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
0506960-001B	Soil		1.044	0	0	50	47.893	7/1/2005	7/1/2005
0506960-002B	Soil		1.08	0	0	50	46.296	7/1/2005	7/1/2005
0506960-003B	Soil		1.096	0	0	50	45.620	7/1/2005	7/1/2005
0506960-004B	Soil		1.018	0	0	50	49.116	7/1/2005	7/1/2005
ILCSS1 6/30/05			1	0	0	50	50.000	6/30/2005	6/30/2005
0506960-005B	Soil		1.006	0	0	50	49.702	7/1/2005	7/1/2005
0506985-001A	Soil		1.05	0	0	50	47.619	7/1/2005	7/1/2005
0506985-002A	Soil		1.065	0	0	50	46.948	7/1/2005	7/1/2005
0506887-001A1	Soil		1.036	0	0	50	48.263	7/1/2005	7/1/2005
IMBS1 6/30/05			1	0	0	50	50.000	6/30/2005	6/30/2005
0506887-001A	Soil		1.032	0	0	50	48.450	6/30/2005	6/30/2005
0506928-001B	Soil		1.026	0	0	50	48.733	6/30/2005	6/30/2005
0506928-002B	Soil		1.011	0	0	50	49.456	6/30/2005	6/30/2005
0506928-003B	Soil		1.053	0	0	50	47.483	6/30/2005	6/30/2005
0506928-004B	Soil		1.029	0	0	50	48.591	6/30/2005	6/30/2005
0506929-001A	Brick		1.075	0	0	50	46.512	6/30/2005	6/30/2005
0506929-002A	Brick		1.034	0	0	50	48.356	6/30/2005	6/30/2005
0506929-003A	Brick		1	0	0	50	50.000	6/30/2005	6/30/2005
0506929-004A	Brick		1.087	0	0	50	45.998	6/30/2005	6/30/2005
0506929-005A	Brick		1.083	0	0	50	46.168	6/30/2005	6/30/2005
0506928-003BMS	Soil		1.042	0	0	50	47.985	6/30/2005	6/30/2005
0506928-003BMSD	Soil		1.06	0	0	50	47.170	6/30/2005	6/30/2005

STAT Analysis Corporation

PREP BATCH REPORT

Prep Start Date: **7/1/2005 12:30:00 P**
Prep End Date: **7/1/2005 3:16:00 P**

Prep Batch **15225** Prep Code: **M_W_PREP** Technician: **DGI**

Prep Factor Units: **mL / mL**

Sample ID	Matrix	pH	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IMBW1 7/1/05			50	0	0	50	1.000	7/1/2005	7/1/2005
ILCSW1 7/1/05			50	0	0	50	1.000	7/1/2005	7/1/2005
IMBTCLP2 6/30/05			50	0	0	50	1.000	7/1/2005	7/1/2005
0506980-001B	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
0506980-003B	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
0506980-001BMS	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
IMBTCLP1 6/30/05			50	0	0	50	1.000	7/1/2005	7/1/2005
0506959-001A	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
0506959-001AMS	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
0506959-001AMSD	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
0506976-002A	Debris		50	0	0	50	1.000	7/1/2005	7/1/2005
0506977-001A	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
0506980-002B	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
0506985-001A	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
0506985-002A	Soil		50	0	0	50	1.000	7/1/2005	7/1/2005
0506994-002A	Debris		50	0	0	50	1.000	7/1/2005	7/1/2005
0506996-001A	Debris		50	0	0	50	1.000	7/1/2005	7/1/2005

STAT Analysis Corporation

Date: *July 01, 2005*

CLIENT: Burns & McDonnell
Work Order: 0506985
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 15202

Sample ID **IMBS1 6/30/05** SampType: **MBLK** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **6/30/2005** Run ID: **ICPMS-2_050630A**
Client ID: **ZZZZZ** Batch ID: **15202** TestNo: **SW6020** Analysis Date: **6/30/2005** SeqNo: **425528**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.25									

Sample ID **ILCSS1 6/30/05** SampType: **LCS** TestCode: **M_ICPMS_S** Units: **mg/Kg** Prep Date: **6/30/2005** Run ID: **ICPMS-2_050630A**
Client ID: **ZZZZZ** Batch ID: **15202** TestNo: **SW6020** Analysis Date: **6/30/2005** SeqNo: **425531**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	26.94	0.25	25	0	108	80	120	0	0		

Sample ID **0506928-003BMS** SampType: **MS** TestCode: **M_ICPMS_S** Units: **mg/Kg-dry** Prep Date: **6/30/2005** Run ID: **ICPMS-2_050630A**
Client ID: **ZZZZZ** Batch ID: **15202** TestNo: **SW6020** Analysis Date: **6/30/2005** SeqNo: **425538**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	48.39	0.59	29.29	14.3	116	75	125	0	0		

Sample ID **0506928-003BMSD** SampType: **MSD** TestCode: **M_ICPMS_S** Units: **mg/Kg-dry** Prep Date: **6/30/2005** Run ID: **ICPMS-2_050630A**
Client ID: **ZZZZZ** Batch ID: **15202** TestNo: **SW6020** Analysis Date: **6/30/2005** SeqNo: **425539**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	49.47	0.58	28.8	14.3	122	75	125	48.39	2.22	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank

CLIENT: Burns & McDonnell
Work Order: 0506985
Project: 29168, Peoples Gas-Hawthorne Regulator Station

ANALYTICAL QC SUMMARY REPORT

BatchID: 15225

Sample ID **IMBTCLP2 6/30/05** SampType: **MBLK** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **7/1/2005** Run ID: **ICPMS-2_050701A**
Client ID: **ZZZZZ** Batch ID: **15225** TestNo: **SW1311/6020** Analysis Date: **7/1/2005** SeqNo: **426497**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.0050									

Sample ID **IMBTCLP1 6/30/05** SampType: **MBLK** TestCode: **M_ICPMS_T+** Units: **mg/L** Prep Date: **7/1/2005** Run ID: **ICPMS-2_050701A**
Client ID: **ZZZZZ** Batch ID: **15225** TestNo: **SW1311/6020** Analysis Date: **7/1/2005** SeqNo: **426498**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.0050									

Sample ID **IMBW1 7/1/05** SampType: **MBLK** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **7/1/2005** Run ID: **ICPMS-2_050701A**
Client ID: **ZZZZZ** Batch ID: **15225** TestNo: **SW6020** Analysis Date: **7/1/2005** SeqNo: **426495**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.00119	0.0020									J

Sample ID **ILCSW1 7/1/05** SampType: **LCS** TestCode: **M_ICPMS_W** Units: **mg/L** Prep Date: **7/1/2005** Run ID: **ICPMS-2_050701A**
Client ID: **ZZZZZ** Batch ID: **15225** TestNo: **SW6020** Analysis Date: **7/1/2005** SeqNo: **426496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.5468	0.0020	0.5	0.00119	109	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blanl

LABORATORY ACCREDITATION

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL LABORATORY ACCREDITATION

is hereby granted to

STAT ANALYSIS CORPORATION
2201 WEST CAMPBELL PARK DRIVE
CHICAGO, IL 60612-3547

ACCREDITATION NUMBER #100445

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part 186 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part 186. Please contact the Illinois EPA Environmental Laboratory Accreditation Program (IL ELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Illinois is not an endorsement or a guarantee of validity of the data generated by the laboratory.

Janet Cruse

Janet Cruse
Accreditation Officer
Environmental Laboratory Accreditation Program

Certificate No.: 000889
Expiration Date: 09/30/2004
Issued On: 09/22/2003

State of Illinois
Environmental Protection Agency

Certificate No.: 000889

Awards the Certificate of Approval

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

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Hazardous and Solid Waste, Inorganic

1010

Ignitability

1311

TCLP (Organic and Inorganic)

1312

Synthetic Precipitation Leaching Procedure

6020

Aluminum	Antimony	Arsenic
Barium	Beryllium	Cadmium
Calcium	Chromium	Cobalt
Copper	Iron	Lead
Magnesium	Manganese	Nickel
Potassium	Selenium	Silver
Sodium	Thallium	Vanadium
Zinc		

7196A

Chromium VI

7470A

Mercury

7471A

Mercury

9012A

Cyanide

9040B

Hydrogen Ion (pH)

9045C

Hydrogen Ion (pH)

9066

Phenolics

9095A

Paint Filter

Chapter 7/9014

Reactive Cyanide

Chapter 7/9034

Reactive Sulfide

State of Illinois
Environmental Protection Agency

Certificate No.: 000889

Awards the Certificate of Approval

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

Hazardous and Solid Waste, Organic

8081A

4,4'-DDD	4,4'-DDE	4,4'-DDT
Aldrin	alpha-BHC	alpha-Chlordane
beta-BHC	Chlordane - not otherwise specified	delta-BHC
Dieldrin	Endosulfan I	Endosulfan II
Endosulfan sulfate	Endrin	Endrin aldehyde
Endrin ketone	gamma-BHC (Lindane)	gamma-Chlordane
Heptachlor	Heptachlor epoxide	Methoxychlor
Toxaphene		

8082

PCB-1016	PCB-1221	PCB-1232
PCB-1242	PCB-1248	PCB-1254
PCB-1260		

8260B

1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene
1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane
1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane
1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene
1,3-Dichloropropane	1,4-Dichlorobenzene	1,4-Dioxane
2,2-Dichloropropane	2-Butanone (Methyl ethyl ketone, MEK)	2-Chloroethyl vinyl ether
2-Chlorotoluene	2-Hexanone	2-Methyl-1-propanol (Isobutyl alcohol)
2-Nitropropane	2-Propanol (Isopropyl alcohol)	4-Chlorotoluene
4-Methyl-2-pentanone (Methyl isobutyl ketone, I	Acetone	Acrolein (Propenal)
Acrylonitrile	Benzene	Bromobenzene
Bromochloromethane	Bromodichloromethane	Bromoform
Bromomethane	Carbon disulfide	Carbon tetrachloride
Chlorobenzene	Chlorodibromomethane (Dibromochloromethan	Chloroethane
Chloroform	Chloromethane	cis-1,2-Dichloroethene
cis-1,3-Dichloropropene	Dibromomethane	Dichlorodifluoromethane
Dichloromethane (Methylene chloride)	Diethyl ether	Ethyl acetate
Ethyl ether	Ethylbenzene	Hexachlorobutadiene
Isopropylbenzene	Methyl ethyl ketone	Methyl isobutyl ketone
Methyl-t-butyl ether	m-Xylene	Naphthalene
n-Butanol	n-Butylbenzene	o-Xylene
p-Isopropyltoluene	p-Xylene	sec-Butylbenzene
Styrene	tert-Butylbenzene	Tetrachloroethene
Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene
Trichloroethene	Trichlorofluoromethane	Vinyl acetate
Vinyl chloride	Xylenes (Total)	

8270C

1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,2-Diphenylhydrazine
1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dinitrobenzene
1-Methylnaphthalene	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol

State of Illinois
Environmental Protection Agency

Certificate No.: 000889

Awards the Certificate of Approval

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

Hazardous and Solid Waste, Organic

2,4-Dichlorophenol
2,4-Dinitrotoluene (2,4-DNT)
2-Chlorophenol
2-Nitroaniline
3-Nitroaniline
4-Chloro-3-methylphenol
4-Methylphenol
Acenaphthene
Anthracene
Benzo(a)pyrene
Benzo(k)fluoranthene
Bis(2-chloroethoxy) methane
Bis(2-ethylhexyl) phthalate
Chrysene
Diethyl phthalate
Di-n-octyl phthalate
Fluorene
Hexachlorocyclopentadiene
Isophorone
Nitrobenzene
N-Nitrosodiphenylamine
Pentachlorophenol
Pyrene

8270C

2,4-Dimethylphenol
2,6-Dinitrotoluene (2,6-DNT)
2-Methylnaphthalene
2-Nitrophenol
4,6-Dinitro-2-methylphenol
4-Chloroaniline
4-Nitroaniline
Acenaphthylene
Benzidine
Benzo(b)fluoranthene
Benzoic acid
Bis(2-chloroethyl) ether
Butyl benzyl phthalate
Dibenz(a,h)anthracene
Dimethyl phthalate
Diphenylamine
Hexachlorobenzene
Hexachloroethane
m-Cresol (3-Methylphenol)
N-Nitrosodimethylamine
o-Cresol (2-Methylphenol)
Phenanthrene
Pyridine
2,4,6-Trichlorophenol
2,4-Dinitrophenol
2-Chloronaphthalene
2-Methylphenol
3,3'-Dichlorobenzidine
4-Bromophenyl phenyl ether
4-Chlorophenyl phenyl ether
4-Nitrophenol
Aniline
Benzo(a)anthracene
Benzo(g,h,i)perlyene
Benzyl alcohol
Bis(2-chloroisopropyl) ether
Carbazole
Dibenzofuran
Di-n-butyl phthalate
Fluoranthene
Hexachlorobutadiene
Indeno(1,2,3-cd) pyrene
Naphthalene
N-Nitrosodi-n-propylamine
p-Cresol (4-Methylphenol)
Phenol

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY
NELAP - RECOGNIZED
ENVIRONMENTAL LABORATORY ACCREDITATION

is hereby granted to

STAT ANALYSIS CORPORATION
2201 WEST CAMPBELL PARK DRIVE
CHICAGO, IL 60612-3547

NELAP ACCREDITED
ACCREDITATION NUMBER #100445

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

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Jeff Johnston
Manager
Division of Laboratories

Janet Cruse
Accreditation Officer
Environmental Laboratory Accreditation Program

Certificate No.: 001115
Expiration Date: 09/30/2005
Issued On: 09/27/2004

State of Illinois
Environmental Protection Agency

Certificate No.: 001115

Awards the Certificate of Approval

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

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Hazardous and Solid Waste, Inorganic

1010

Ignitability

1311

TCLP (Organic and Inorganic)

1312

Synthetic Precipitation Leaching Procedure

6020

Aluminum
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc

7196A

Chromium VI

7470A

Mercury

7471A

Mercury

9012A

Cyanide

9040B

Hydrogen Ion (pH)

9045C

Hydrogen Ion (pH)

9066

Phenolics

9095A

Paint Filter

Chapter 7/9014

Reactive Cyanide

Chapter 7/9034

Reactive Sulfide

State of Illinois
Environmental Protection Agency
Awards the Certificate of Approval

Certificate No.: 001115

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

Hazardous and Solid Waste, Organic

8015B

Diesel range organics (DRO)	Gasoline range organics (GRO)	

8081A

4,4'-DDD	4,4'-DDE	4,4'-DDT
Aldrin	alpha-BHC	alpha-Chlordane
beta-BHC	Chlordane - not otherwise specified	delta-BHC
Dieldrin	Endosulfan I	Endosulfan II
Endosulfan sulfate	Endrin	Endrin aldehyde
Endrin ketone	gamma-BHC (Lindane)	gamma-Chlordane
Heptachlor	Heptachlor epoxide	Methoxychlor
Toxaphene		

8082

PCB-1016	PCB-1221	PCB-1232
PCB-1242	PCB-1248	PCB-1254
PCB-1260		

8260B

1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene
1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane
1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane
1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene
1,3-Dichloropropane	1,4-Dichlorobenzene	1,4-Dioxane
2,2-Dichloropropane	2-Butanone (Methyl ethyl ketone, MEK)	2-Chloroethyl vinyl ether
2-Chlorotoluene	2-Hexanone	2-Methyl-1-propanol (Isobutyl alcohol)
2-Nitropropane	2-Propanol (Isopropyl alcohol)	4-Chlorotoluene
4-Methyl-2-pentanone (Methyl isobutyl ketone, I	Acetone	Acrolein (Propenal)
Acrylonitrile	Benzene	Bromobenzene
Bromochloromethane	Bromodichloromethane	Bromoform
Bromomethane	Carbon disulfide	Carbon tetrachloride
Chlorobenzene	Chlorodibromomethane (Dibromochloromethan	Chloroethane
Chloroform	Chloromethane	cis-1,2-Dichloroethene
cis-1,3-Dichloropropene	Dibromomethane	Dichlorodifluoromethane
Dichloromethane (Methylene chloride)	Diethyl ether	Ethyl acetate
Ethyl ether	Ethylbenzene	Hexachlorobutadiene
Isopropylbenzene	Methyl ethyl ketone	Methyl isobutyl ketone
Methyl-t-butyl ether	m-Xylene	Naphthalene
n-Butanol	n-Butylbenzene	o-Xylene
p-Isopropyltoluene	p-Xylene	sec-Butylbenzene
Styrene	tert-Butylbenzene	Tetrachloroethene
Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene
Trichloroethene	Trichlorofluoromethane	Vinyl acetate
Vinyl chloride	Xylenes (Total)	

8270C

1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,2-Diphenylhydrazine

State of Illinois
Environmental Protection Agency

Certificate No.: 001115

Awards the Certificate of Approval

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

Hazardous and Solid Waste, Organic

1,4-Dichlorobenzene
2,3,4,6-Tetrachlorophenol
2,4-Dichlorophenol
2,4-Dinitrotoluene (2,4-DNT)
2-Chlorophenol
2-Nitroaniline
3-Nitroaniline
4-Chloro-3-methylphenol
4-Methylphenol
Acenaphthene
Anthracene
Benzo(a)pyrene
Benzo(k)fluoranthene
Bis(2-chloroethoxy) methane
Bis(2-ethylhexyl) phthalate
Chrysene
Diethyl phthalate
Di-n-octyl phthalate
Fluorene
Hexachlorocyclopentadiene
Isophorone
Nitrobenzene
N-Nitrosodiphenylamine
Pentachlorophenol
Pyrene

8270C

1,4-Dinitrobenzene
2,4,5-Trichlorophenol
2,4-Dimethylphenol
2,6-Dinitrotoluene (2,6-DNT)
2-Methylnaphthalene
2-Nitrophenol
4,6-Dinitro-2-methylphenol
4-Chloroaniline
4-Nitroaniline
Acenaphthylene
Benzidine
Benzo(b)fluoranthene
Benzoic acid
Bis(2-chloroethyl) ether
Butyl benzyl phthalate
Dibenz(a,h)anthracene
Dimethyl phthalate
Diphenylamine
Hexachlorobenzene
Hexachloroethane
m-Cresol (3-Methylphenol)
N-Nitrosodimethylamine
o-Cresol (2-Methylphenol)
Phenanthrene
Pyridine
1,3-Dichlorobenzene
1-Methylnaphthalene
2,4,6-Trichlorophenol
2,4-Dinitrophenol
2-Chloronaphthalene
2-Methylphenol
3,3'-Dichlorobenzidine
4-Bromophenyl phenyl ether
4-Chlorophenyl phenyl ether
4-Nitrophenol
Aniline
Benzo(a)anthracene
Benzo(g,h,i)perlyene
Benzyl alcohol
Bis(2-chloroisopropyl) ether
Carbazole
Dibenzofuran
Di-n-butyl phthalate
Fluoranthene
Hexachlorobutadiene
Indeno(1,2,3-cd) pyrene
Naphthalene
N-Nitrosodi-n-propylamine
p-Cresol (4-Methylphenol)
Phenol

8321A

2,4,5-T
2,4-DB
Dichlorprop
MCPP
2,4,5-TP (Silvex)
Dalapon
Dinoseb
2,4-D
Dicamba
MCPA

APPENDIX O
LEAD SUBSURFACE SOIL AREA MANIFESTS
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

WASTE CHARACTERIZATION SAMPLE RESULTS

STAT Analysis Corporation
2255 West Harrison St., Suite B, Chicago, IL 60612-3505
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Laboratory Accreditation Numbers : IEPA NELAP 100445 ; AIHA 10248 ; NVLAP 101202-0

June 21, 2005

Burns & McDonnell
1431 Opus Place
Suite 400
Downers Grove, IL 60515
Telephone: (630) 724-3200
Fax: (630) 724-3201

RE: 29168, Peoples Gas-Hawthorne Regulator Station STAT Project No: 0506564

Dear Joan Gonzalez:

STAT Analysis received 1 sample for the referenced project on 6/17/2005. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC part 186 (Accreditation #100445). Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 563-0371.

Sincerely,

Craig Chawla
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

CC:
Diane Saftic

STAT Analysis Corporation

Date: June 21, 2005

Client: Burns & McDonnell
Project: 29168, Peoples Gas-Hawthorne Regulator Station
Lab Order: 0506564

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0506564-001A	HAS-WC-SVE-061705		6/17/2005 10:45:00 AM	6/17/2005

STAT Analysis Corporation

Date: *June 21, 2005*

CLIENT:	Burns & McDonnell
Project:	29168, Peoples Gas-Hawthorne Regulator Statio
Lab Order:	0506564

CASE NARRATIVE

The following three parameters apply to sample number HAS-WC-SVE-061705 (0506564-001):

Reactivity with Water: None
Odor: Strong
Physical Description: Black and gray soil with rocks

The Laboratory Control Sample (LCS-14943-SVOC) had high SVOC soil spike recovery for 1,4-Dichlorobenzene (92% Recovery, QC Limits 55-90%).

The Laboratory Control Sample (LCS-15002-SVOC) had high SVOC water spike recovery for 2-Chlorophenol (103% Recovery, QC Limits 30-97%), 4-Chloro-3-methylphenol (118% Recovery, QC Limits 43-113%), N-Nitrosodi-n-propylamine (127% Recovery, QC Limits 36-104%) and Pentachlorophenol (158% Recovery, QC Limits 50-113%).

The MS/MSD prepared from sample HAS-WC-SVE-061705 (0506546-001) had high SVOC water spike and surrogate recovery for 1,2,4-Trichlorophenol (104% Recovery (MSD), QC Limits 31-101%), 2-Chlorophenol (104% Recovery (MSD), QC Limits 30-97%), 4-Chloro-3-methylphenol (121% Recovery (MSD), QC Limits 43-113%), N-Nitrosodi-n-propylamine (128% Recovery (MSD), QC Limits 36-104%), Pentachlorophenol (126%/147% Recovery, QC Limits 50-113%) and 2,4,6-Tribromophenol (133% Recovery (MSD), QC Limits 10-123%).

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Report Date: June 21, 2005
Print Date: June 21, 2005

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-WC-SVE-061705
Lab Order:	0506564	**Tag Number:**	
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	6/17/2005 10:45:00 AM
Lab ID:	0506564-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
PCBs	**SW8082 (SW3550B)**			Prep Date: **6/17/2005**		Analyst: **ERP**
Aroclor 1016	ND	0.1		mg/Kg-dry	1	6/18/2005
Aroclor 1221	ND	0.1		mg/Kg-dry	1	6/18/2005
Aroclor 1232	ND	0.1		mg/Kg-dry	1	6/18/2005
Aroclor 1242	ND	0.1		mg/Kg-dry	1	6/18/2005
Aroclor 1248	ND	0.1		mg/Kg-dry	1	6/18/2005
Aroclor 1254	ND	0.1		mg/Kg-dry	1	6/18/2005
Aroclor 1260	ND	0.1		mg/Kg-dry	1	6/18/2005
TCLP Pesticides	**SW8081 (SW3510C)**			Prep Date: **6/20/2005**		Analyst: **ERP**
Chlordane	ND	0.00005		mg/L	1	6/20/2005
Endrin	ND	0.0001		mg/L	1	6/20/2005
gamma-BHC	ND	0.0005		mg/L	1	6/20/2005
Heptachlor	ND	0.00005		mg/L	1	6/20/2005
Heptachlor epoxide	ND	0.00005		mg/L	1	6/20/2005
Methoxychlor	ND	0.00005		mg/L	1	6/20/2005
Toxaphene	ND	0.001		mg/L	1	6/20/2005
TCLP Herbicides	**SW1311/8321 (SW3510C)**			Prep Date: **6/20/2005**		Analyst: **JF**
2,4,5-TP (Silvex)	ND	0.0002	*	mg/L	1	6/21/2005
2,4-D	ND	0.0004	*	mg/L	1	6/21/2005
TCLP Mercury	**SW1311/7470A**			Prep Date: **6/20/2005**		Analyst: **JG**
Mercury	ND	0.00025		mg/L	1	6/20/2005
TCLP Metals by ICP/MS	**SW1311/6020 (SW3005A)**			Prep Date: **6/18/2005**		Analyst: **JG**
Arsenic	ND	0.01		mg/L	5	6/20/2005
Barium	1.7	0.02		mg/L	5	6/20/2005
Cadmium	ND	0.005		mg/L	5	6/20/2005
Chromium	ND	0.02		mg/L	5	6/20/2005
Copper	ND	0.1		mg/L	5	6/20/2005
Lead	0.49	0.0075		mg/L	5	6/20/2005
Nickel	0.042	0.02		mg/L	5	6/20/2005
Selenium	ND	0.01		mg/L	5	6/20/2005
Silver	ND	0.01		mg/L	5	6/20/2005
Zinc	1.1	0.05		mg/L	5	6/20/2005
F-Listed Semivolatile Compounds	**SW8270C (SW3550B)**			Prep Date: **6/17/2005**		Analyst: **PAB**
2-Ethoxyethanol	ND	0.32	*	mg/Kg	1	6/19/2005
2-Methylphenol	ND	0.32		mg/Kg	1	6/19/2005
3- & 4-Methylphenol	ND	0.32		mg/Kg	1	6/19/2005
Cyclohexanone	ND	0.32	*	mg/Kg	1	6/19/2005

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Report Date: June 21, 2005
Print Date: June 21, 2005

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-WC-SVE-061705
Lab Order:	0506564	**Tag Number:**	
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	6/17/2005 10:45:00 AM
Lab ID:	0506564-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
F-Listed Semivolatile Compounds	**SW8270C (SW3550B)**			Prep Date: **6/17/2005**		Analyst: **PAB**
Nitrobenzene	ND	0.32		mg/Kg	1	6/19/2005
Pyridine	ND	0.32		mg/Kg	1	6/19/2005
Polynuclear Aromatic Hydrocarbons	**SW8270C-SIM (SW3550B)**			Prep Date: **6/17/2005**		Analyst: **VS**
Acenaphthene	1.7	0.32		mg/Kg-dry	10	6/20/2005
Acenaphthylene	0.78	0.32		mg/Kg-dry	10	6/20/2005
Anthracene	3.5	3.2		mg/Kg-dry	100	6/20/2005
Benz(a)anthracene	12	3.2		mg/Kg-dry	100	6/20/2005
Benzo(b)fluoranthene	4.6	3.2		mg/Kg-dry	100	6/20/2005
Benzo(k)fluoranthene	5.6	3.2		mg/Kg-dry	100	6/20/2005
Benzo(g,h,i)perylene	4.8	3.2		mg/Kg-dry	100	6/20/2005
Benzo(a)pyrene	6.6	3.2		mg/Kg-dry	100	6/20/2005
Chrysene	12	3.2		mg/Kg-dry	100	6/20/2005
Dibenz(a,h)anthracene	1.3	0.32		mg/Kg-dry	10	6/20/2005
Fluoranthene	23	3.2		mg/Kg-dry	100	6/20/2005
Fluorene	2.1	0.32		mg/Kg-dry	10	6/20/2005
Indeno(1,2,3-cd)pyrene	3.6	3.2		mg/Kg-dry	100	6/20/2005
Naphthalene	2.4	0.32		mg/Kg-dry	10	6/20/2005
Phenanthrene	11	3.2		mg/Kg-dry	100	6/20/2005
Pyrene	26	3.2		mg/Kg-dry	100	6/20/2005
TCLP Semivolatile Organic Compounds	**SW1311/8270C (SW3510C)**			Prep Date: **6/20/2005**		Analyst: **PAB**
1,4-Dichlorobenzene	ND	0.01		mg/L	1	6/21/2005
2,4,5-Trichlorophenol	ND	0.01		mg/L	1	6/21/2005
2,4,6-Trichlorophenol	ND	0.01		mg/L	1	6/21/2005
2,4-Dinitrotoluene	ND	0.01		mg/L	1	6/21/2005
2-methylphenol	ND	0.01		mg/L	1	6/21/2005
3- & 4-Methylphenol	ND	0.01		mg/L	1	6/21/2005
Hexachlorobenzene	ND	0.01		mg/L	1	6/21/2005
Hexachlorobutadiene	ND	0.01		mg/L	1	6/21/2005
Hexachloroethane	ND	0.01		mg/L	1	6/21/2005
Nitrobenzene	ND	0.01		mg/L	1	6/21/2005
Pentachlorophenol	ND	0.05		mg/L	1	6/21/2005
Pyridine	ND	0.01		mg/L	1	6/21/2005
BTEX by GC/MS	**SW8260B**			Prep Date: **6/17/2005**		Analyst: **PS**
Benzene	ND	0.0071		mg/Kg-dry	1	6/18/2005
Toluene	ND	0.0071		mg/Kg-dry	1	6/18/2005
Ethylbenzene	ND	0.0071		mg/Kg-dry	1	6/18/2005
Xylenes, Total	ND	0.021		mg/Kg-dry	1	6/18/2005

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Report Date: June 21, 2005
Print Date: June 21, 2005

Client:	Burns & McDonnell	**Client Sample ID:**	HAS-WC-SVE-061705
Lab Order:	0506564	**Tag Number:**	
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	6/17/2005 10:45:00 AM
Lab ID:	0506564-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
F-Listed Volatile Compounds	**SW8260B**			Prep Date: **6/17/2005**		Analyst: **PS**
1,1,1-Trichloroethane	ND	0.0055		mg/Kg	1	6/18/2005
1,1,2-Trichloroethane	ND	0.0055		mg/Kg	1	6/18/2005
1,2-Dichlorobenzene	ND	0.0055		mg/Kg	1	6/18/2005
1-Butanol	ND	0.44		mg/Kg	1	6/18/2005
2-Butanone	ND	0.011		mg/Kg	1	6/18/2005
2-Nitropropane	ND	0.055		mg/Kg	1	6/18/2005
4-Methyl-2-pentanone	ND	0.011		mg/Kg	1	6/18/2005
Acetone	0.054	0.027		mg/Kg	1	6/18/2005
Benzene	ND	0.0055		mg/Kg	1	6/18/2005
Carbon disulfide	ND	0.0055		mg/Kg	1	6/18/2005
Carbon tetrachloride	ND	0.0055		mg/Kg	1	6/18/2005
Chlorobenzene	ND	0.0055		mg/Kg	1	6/18/2005
Ethyl acetate	ND	0.055		mg/Kg	1	6/18/2005
Ethyl Ether	ND	0.055		mg/Kg	1	6/18/2005
Ethylbenzene	ND	0.0055		mg/Kg	1	6/18/2005
Freon-113	ND	0.0055		mg/Kg	1	6/18/2005
Isobutyl Alcohol	ND	0.44		mg/Kg	1	6/18/2005
Methanol	ND	1.7	*	mg/Kg	1	6/20/2005
Methylene chloride	ND	0.011		mg/Kg	1	6/18/2005
Tetrachloroethene	ND	0.0055		mg/Kg	1	6/18/2005
Toluene	ND	0.0055		mg/Kg	1	6/18/2005
Trichloroethene	ND	0.0055		mg/Kg	1	6/18/2005
Trichlorofluoromethane	ND	0.0055		mg/Kg	1	6/18/2005
Xylenes, Total	ND	0.016		mg/Kg	1	6/18/2005
TCLP Volatile Organic Compounds by GC/MS	**SW1311/8260B (SW5030B)**			Prep Date: **6/17/2005**		Analyst: **PS**
Benzene	ND	0.05		mg/L	10	6/19/2005
2-Butanone	ND	0.1		mg/L	10	6/19/2005
Carbon tetrachloride	ND	0.05		mg/L	10	6/19/2005
Chlorobenzene	ND	0.05		mg/L	10	6/19/2005
Chloroform	ND	0.05		mg/L	10	6/19/2005
1,2-Dichloroethane	ND	0.05		mg/L	10	6/19/2005
1,1-Dichloroethene	ND	0.05		mg/L	10	6/19/2005
Tetrachloroethene	ND	0.05		mg/L	10	6/19/2005
Trichloroethene	ND	0.05		mg/L	10	6/19/2005
Vinyl chloride	ND	0.05		mg/L	10	6/19/2005
Ash Content	**E160.4**			Prep Date: **6/18/2005**		Analyst: **RW**
Ash Content	92.2	0.01	*	wt%	1	6/20/2005

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Client:	Burns & McDonnell	**Client Sample ID:**	HAS-WC-SVE-061705
Lab Order:	0506564	**Tag Number:**	
Project:	29168, Peoples Gas-Hawthorne Regulator Station	**Collection Date:**	6/17/2005 10:45:00 AM
Lab ID:	0506564-001A	**Matrix:**	Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Cyanide on ASTM Extract	**D3987-85/SW9012A**			Prep Date: **6/18/2005**		Analyst: **YZ**
Cyanide	ND	0.005	*	mg/L	1	6/20/2005
Chemical Oxygen Demand on ASTM Extract	**D3987-85/E410.4**			Prep Date: **6/18/2005**		Analyst: **YZ**
Chemical Oxygen Demand	27	20	*	mg/L	1	6/20/2005
Ammonia as Nitrogen on ASTM Extract	**D3987-85/E350.1**			Prep Date: **6/20/2005**		Analyst: **YZ**
Nitrogen, Ammonia (As N)	0.57	0.05	*	mg/L	1	6/20/2005
Oil and Grease on ASTM Extract	**D3987-85/E1664**			Prep Date: **6/18/2005**		Analyst: **RW**
Oil and Grease	ND	5	*	mg/L	1	6/20/2005
Oxidizing Agents Screen on ASTM Extract	**D4981-89**			Prep Date: **6/18/2005**		Analyst: **RW**
Oxidizing Agents	NEG		*	POS/NEG	1	6/18/2005
PH on ASTM Extract	**D3987-85/E150.1**			Prep Date: **6/18/2005**		Analyst: **RW**
pH	7.7		*	pH Units	1	6/18/2005
Cyanide, Reactive	**SW7.3.3.2**			Prep Date: **6/20/2005**		Analyst: **YZ**
Reactive Cyanide	ND	1		mg/Kg	1	6/20/2005
Cyanide, Total	**SW9012A**			Prep Date: **6/18/2005**		Analyst: **YZ**
Cyanide	ND	0.32		mg/Kg-dry	1	6/20/2005
Flash Point (Open-Cup)	**SW1010**			Prep Date: **6/20/2005**		Analyst: **RW**
Flashpoint	No Flash up to 212			°F	1	6/20/2005
Paint Filter	**SW9095A**			Prep Date: **6/17/2005**		Analyst: **RW**
Paint Filter	Pass			Pass/Fail	1	6/17/2005
pH (1:10, 25 °C)	**SW9045C**			Prep Date: **6/17/2005**		Analyst: **RW**
pH	8.8			pH Units	1	6/17/2005
Phenolics	**SW9066 (SW9065)**			Prep Date: **6/18/2005**		Analyst: **YZ**
Phenolics, Total Recoverable	1.3	0.32		mg/Kg-dry	1	6/20/2005
Percent Moisture	**D2974**			Prep Date: **6/17/2005**		Analyst: **JG**
Percent Moisture	22.5	0.01	*	wt%	1	6/18/2005
Solids, Total	**D2974**			Prep Date: **6/17/2005**		Analyst: **JG**
Total Solid	77.5	0.01	*	wt%	1	6/18/2005
Sulfide, Reactive	**SW7.3.4.2**			Prep Date: **6/20/2005**		Analyst: **YZ**
Reactive Sulfide	ND	10		mg/Kg	1	6/20/2005

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H - Holding time exceeded

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

RUSH TAT!

Burns & McDonnell Engineering
1431 Opus Place
Downers Grove, Illinois 60515
Phone: (630) 724-3200 Fax: (630) 724-3201

Attention: JOAN GONZALEZ / DIANE SAFTIC

Laboratory: STAT ANALYSIS
Address: 2201 W CAMPBELL PARK DR
City/State/ZIP: CHICAGO, IL 60612
Telephone: (312) 733-0551

Document Control No.: HAS-001-2005
Lab. Reference No. or Episode No.: 0506564

Project Number: 29168
Site Name: PEOPLES GAS - HAWTHORNE REGULATOR STATION

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: CODE R	BTEX	PAHs	TCLP HERBICIDES/PESTICIDES (D012-D017, D020, D031)	REACTIVE CYANIDE + SULFIDE	PCBs (1 PPM)	LN PANEL	F-CODE SOLVENT SCAN	Remarks
HAS-WC	- SVE -	061705	—	—	—	—	6/17/05	1045		X			X	X	X	X	X	X	X	X	

6/17/05

- PLEASE FIND 1 COOLER

Sampler (signature):

Sampler (signature):

Custody Seal Number: STAT 061705-001, STAT 061705-002

Special Instructions: RUSH TAT!

Relinquished By (signature): 1. Date/Time: 6/17/05 1230

Received By (signature): Date/Time: 6/17/05 1400

Ice Present in Container: Yes [X] No [ ]

Temperature Upon Receipt: 3°

Relinquished By (signature): 2. Date/Time:

Received By (signature): Date/Time:

Laboratory Comments:

STAT Analysis Corporation

Sample Receipt Checklist

Client Name B&M

Date and Time Received: 06/17/05

Work Order Numbe 0506564

Received by: JC

Checklist completed by: Jesus Cant (Signature) 6/17/05 (Date)

Reviewed by: (Initials) 6/21/05 (Date)

Matrix

Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ✔	No	Not Present
Custody seals intact on shippping container/cooler?	Yes ✔	No	Not Present
Custody seals intact on sample bottles?	Yes	No	Not Present ✔
Chain of custody present?	Yes ✔	No	
Chain of custody signed when relinquished and received?	Yes ✔	No	
Chain of custody agrees with sample labels?	Yes ✔	No	
Samples in proper container/bottle?	Yes ✔	No	
Sample containers intact?	Yes ✔	No	
Sufficient sample volume for indicated test?	Yes ✔	No	
All samples received within holding time?	Yes ✔	No	
Container or Temp Blank temperature in compliance?	Yes ✔	No	Temperature 3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted	Yes	No
Water - Samples properly preserved/ pH checked?	Yes	No	

Adjusted? Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted Date contacted: Person contacted

Contacted by: Regarding

Comments:

Corrective Action

LABORATORY ACCREDITATION

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY
NELAP - RECOGNIZED
ENVIRONMENTAL LABORATORY ACCREDITATION

is hereby granted to

STAT ANALYSIS CORPORATION
2201 WEST CAMPBELL PARK DRIVE
CHICAGO, IL 60612-3547

NELAP ACCREDITED
ACCREDITATION NUMBER #100445

According to the Illinois Administrative Code, Title 35, Subtitle A, Chapter II, Part 186, ACCREDITATION OF LABORATORIES FOR DRINKING WATER, WASTEWATER AND HAZARDOUS WASTES ANALYSIS, the State of Illinois formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed below.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part 186 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part 186. Please contact the Illinois EPA Environmental Laboratory Accreditation Program (IL ELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Illinois is not an endorsement or a guarantee of validity of the data generated by the laboratory.

Jeff Johnston
Manager
Division of Laboratories

Janet Cruse
Accreditation Officer
Environmental Laboratory Accreditation Program

Certificate No.: 001115
Expiration Date: 09/30/2005
Issued On: 09/27/2004

State of Illinois
Environmental Protection Agency

Certificate No.: 001115

Awards the Certificate of Approval

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

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Hazardous and Solid Waste, Inorganic

1010

Ignitability

1311

TCLP (Organic and Inorganic)

1312

Synthetic Precipitation Leaching Procedure

6020

Aluminum	Antimony	Arsenic
Barium	Beryllium	Boron
Cadmium	Calcium	Chromium
Cobalt	Copper	Iron
Lead	Magnesium	Manganese
Nickel	Potassium	Selenium
Silver	Sodium	Thallium
Vanadium	Zinc	

7196A

Chromium VI

7470A

Mercury

7471A

Mercury

9012A

Cyanide

9040B

Hydrogen Ion (pH)

9045C

Hydrogen Ion (pH)

9066

Phenolics

9095A

Paint Filter

Chapter 7/9014

Reactive Cyanide

Chapter 7/9034

Reactive Sulfide

State of Illinois
Environmental Protection Agency

Certificate No.: 001115

Awards the Certificate of Approval

STAT Analysis Corporation
2201 West Campbell park Drive
Chicago, IL 60612-3547

Hazardous and Solid Waste, Organic

8015B

Diesel range organics (DRO)
Gasoline range organics (GRO)

8081A

4,4'-DDD
4,4'-DDE
4,4'-DDT
Aldrin
alpha-BHC
alpha-Chlordane
beta-BHC
Chlordane - not otherwise specified
delta-BHC
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Endrin ketone
gamma-BHC (Lindane)
gamma-Chlordane
Heptachlor
Heptachlor epoxide
Methoxychlor
Toxaphene

8082

PCB-1016
PCB-1221
PCB-1232
PCB-1242
PCB-1248
PCB-1254
PCB-1260

8260B

1,1,1,2-Tetrachloroethane
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,1-Dichloropropene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dibromoethane (EDB)
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
1,4-Dioxane
2,2-Dichloropropane
2-Butanone (Methyl ethyl ketone, MEK)
2-Chloroethyl vinyl ether
2-Chlorotoluene
2-Hexanone
2-Methyl-1-propanol (Isobutyl alcohol)
2-Nitropropane
2-Propanol (Isopropyl alcohol)
4-Chlorotoluene
4-Methyl-2-pentanone (Methyl isobutyl ketone, I
Acetone
Acrolein (Propenal)
Acrylonitrile
Benzene
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chlorodibromomethane (Dibromochloromethan
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromomethane
Dichlorodifluoromethane
Dichloromethane (Methylene chloride)
Diethyl ether
Ethyl acetate
Ethyl ether
Ethylbenzene
Hexachlorobutadiene
Isopropylbenzene
Methyl ethyl ketone
Methyl isobutyl ketone
Methyl-t-butyl ether
m-Xylene
Naphthalene
n-Butanol
n-Butylbenzene
o-Xylene
p-Isopropyltoluene
p-Xylene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Trichlorofluoromethane
Vinyl acetate
Vinyl chloride
Xylenes (Total)

8270C

1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,2-Diphenylhydrazine

MANIFESTS

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

AND SPECIAL WASTE

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Peoples Gas Light & Coke Co
130 E Randolph Drive
Chicago IL 60601

Location If Different
Hawthorne Regulator Station
1740 N Marcy Court
Chicago IL 60614

4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS*

A. Illinois Manifest Document Number: IL 11763902 FEE PAID IF APPLICABLE

B. Generator's IL ID Number: 0 3 1 6 0 7 0 0 2 2

C. Transporter's ID Number:

D. Transporter's Phone (4 7 6 5

E. Transporter's ID Number: 7 7 3 2 5 4 3 6 4 4

F. Transporter's Phone ( )

G. Facility's IL ID Number: 0 3 1 0 3 9 0 0 0 1

H. Facility's Phone (773 646-3099

5. Transporter 1 Company Name: M I Transit Inc | 6. US EPA ID Number

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address
CID RDF Bio Soil Facility
138th & Bishop Ford Fwy
Calaumet City IL 60409

10. US EPA ID Number

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Not hazardous by DOT MGP contaminated soil	1	DT	15	T	EPA HW Number
b.					EPA HW Number
c.					EPA HW Number
d.					EPA HW Number

J. Additional Description for Materials Listed Above
Class A
Profile EF 1732

K. Handling Codes for Wastes Listed Above In Item #14

15. Special Handling Instructions and Additional Information
Load 1 15 Load 2 ____ Load 3 ____ Load 4 ____ Load 5 ____

Truck # ~~158~~ 178

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Alison Millerick | Signature: Agent for Peoples Gas Ed Wiese | Date (Month Day Year): 07 22 05

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: SAFET | Signature: [signature] | Date (Month Day Year): 07 22 05

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date (Month Day Year)

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: JGMASS | Signature: [signature] | Date (Month Day Year): 07 22 05

GENERATOR

TRANSPORTER

FACILITY

In case of a spill call the Illinois Office of Emergency Response at 217/782-7860 and the National Response Center at 800/424-8802 or 202/426-2675.

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

APPENDIX P
TIER 3 RISK ASSESSMENT
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

TIER 3 RISK ASSESSMENT EVALUATION

for

HAWTHORNE REGULATOR STATION
FORMER MANUFACTURED GAS PLANT SITE
CHICAGO, ILLINOIS

Prepared for

THE PEOPLES GAS
LIGHT and COKE COMPANY

DECEMBER 2005

PROJECT NO. 29168

Burns & McDonnell Engineering Company, Inc.
2601 West 22nd Street
Oak Brook, Illinois 60523-1229
630-990-0300

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1.0 INTRODUCTION

An Illinois Tiered Approach to Corrective Action Objectives (TACO) Tier 3 risk assessment (RA) was performed for the south portion of the Hawthorne Regulator Station former manufactured gas plant (MGP) (Site), currently owned by The Peoples Gas Light and Coke Company (Peoples Gas), in Chicago, Illinois. The RA was performed to evaluate potential risk to utility and construction workers on this portion of the Site following removal of soil that exceeded the remediation objectives. Remedial activities occurred in May, June and July 2003 and included removal of 3 feet across the Site along with hot spot removal in one small area to a depth of 4.5 feet. Figure 1 presents the remedial actions map. The RA evaluates subsurface soil remaining on the south portion of the Site using data from site investigation soil sampling conducted in June 2002. The RA is limited to soil exposure risks.

An RA is a scientific procedure used to estimate the probability of adverse health effects to humans from exposures to chemicals in the environment. The RA is a tool used to evaluate the likelihood of risks. It does not provide absolute statements concerning health effects that may or may not be experienced by individuals. The RA in this report focuses on organic compounds, inorganic analytes and exposure pathways directly related to the Site soil.

An RA is a multistep process consisting of the following tasks:

- Data evaluation;
- Exposure assessment;
- Toxicity assessment;
- Risk characterization; and
- Uncertainty analysis.

Data evaluation includes the selection of chemicals of potential concern (COPCs) that will be evaluated in the RA. Factors used to select COPCs include, but are not limited to, data quality, frequency of detection, and the presence of COPCs in background soil studies.

Exposure assessment involves characterizing the on-site media with respect to COPCs; identifying populations potentially exposed to COPCs; identifying exposure pathways; calculating representative concentrations and human intakes; and estimating the magnitude, frequency and duration of exposure.

Toxicity assessment identifies types of adverse health effects associated with chemical exposures, relationships between the magnitude of exposure and adverse effects, and related uncertainties.

Risk characterization estimates health risks associated with exposure to COPCs, based on toxicity and exposure assessment information, and is conducted for all COPCs.

Uncertainty analysis is a qualitative and, where possible, quantitative description of the assumptions and limitations inherent in each step of the RA.

Although these steps are presented sequentially, the RA process is highly iterative. Information developed in each step of the RA is useful in subsequent steps and provides feedback to preceding steps. For example, concentration data from exposure assessment may be used during data evaluation to select COPCs. Toxicity profiles developed in the toxicity assessment may provide important qualitative information for use in risk characterization or uncertainty analysis.

This RA complies with Illinois EPA guidance for risk assessments, the U.S. Environmental Protection Agency (USEPA) Risk Assessment Guidance for Superfund (RAGS) (1989), and supplemental USEPA guidance as referenced throughout the text. This RA has seven sections:

- Section 1.0–Introduction.
- Section 2.0–Data Evaluation.
- Section 3.0–Exposure Assessment.
- Section 4.0–Toxicity Assessment.
- Section 5.0–Scenario Evaluation.
- Section 6.0–Risk Assessment Summary.
- Section 7.0–References.

* * * * *

2.0 DATA EVALUATION

Data evaluation is the process of selecting COPCs and developing appropriate data sets to use specifically for the RA, based on issues such as data quality, frequency of detection and presence in background soil studies. The data evaluation process includes the following steps:

- Gather data from the study area investigation(s);
- Evaluate analytical methods used;
- Evaluate quality of data with respect to laboratory reporting limits, qualifiers and blanks; and
- Develop a set of data for RA use.

Data evaluation objectives are used to identify a set of chemicals likely to be site-related and to evaluate whether or not reported concentrations are of acceptable quality for use in this quantitative RA. Soil samples were collected in June 2002. The soil samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), priority pollutant metals and total cyanide. STAT performed laboratory validation and determined that the analytical results were usable. Burns & McDonnell performed further evaluation and validation, determining that the overall quality of the analytical results was good. The complete set of analytical results used to prepare the data set for the two scenarios are presented in Table 1. Figure 2 presents the RA soil sample location map.

The exposure scenarios were determined as described in Section 3.0 and the corresponding data set was developed for data evaluation. All surface soil from 0 to 3 feet below ground surface (bgs), as well as a small area of subsurface soil to 4.5 feet bgs, in the south portion of the Site were removed from the Site during remedial activities and replaced with imported clean fill. Subsurface soil samples were collected in the south portion of the Site to a maximum depth of 11 feet bgs, the depth determined by field observations and measurements to be the extent of soil impact on this portion of the Site. As a conservative measure, all subsurface soil samples that remain on this portion of the Site following remedial action activities were included in the RA data set for both utility worker and construction worker scenarios.

The following steps were taken to generate the COPC data set for the two scenarios:

- No sample results were eliminated based on a comparison to the Illinois TACO Tier 1 screening levels. This allowed for the evaluation of similar-acting chemicals; and
- Analytes that were non-detect in all samples were eliminated from further consideration as shown in Table 2.
- Inorganic chemical concentrations were compared to metropolitan statistical area (MSA) background concentrations (35 IAC Part 742, Appendix A, Table G). Antimony was eliminated from the COPC data set based on this background comparison.

Table 2 presents a summary of occurrence, distribution and selection of COPCs for the RA. All data qualified as estimated "J" during data validation was retained for use in the RA. The "J" qualifier indicates uncertainty in the reported concentration, but not in the identity of the compound or analyte.

* * * * *

3.0 EXPOSURE ASSESSMENT

The objective of the exposure assessment is to estimate the type and magnitude of human exposure to COPCs present in the Site soil. This section characterizes local land and water uses and identifies pathways through which COPCs may be transported from the Site. Based on this information, potential receptors and exposure routes are identified and exposure scenarios are developed.

The exposure assessment includes the following steps:

- Characterization of exposure setting;
- Identification of exposure pathway;
- Quantification of exposure; and
- Uncertainty evaluation.

3.1 CHARACTERIZATION OF EXPOSURE SETTING

The first step in the exposure assessment is to characterize the Site with respect to its physical characteristics and to identify the human populations of concern on and near the Site. This step results in a qualitative evaluation of the Site and surrounding populations with respect to those characteristics that influence exposure.

3.1.1 Land Use

The Site is an active natural gas regulating station owned by Peoples Gas. It is located on a part of the former Hawthorne Avenue Station Gas Storage facility, encompassing 0.43 acres of the original 2.5 acre facility that existed east of Kingsbury Street between Willow and Wisconsin Streets. The Site is located at 1729 North Kingsbury Street in a district zoned as Planned Manufacturing District, according to the zoning map for the City of Chicago (2004). The ground surface at the Site is covered with stone. A wrought-iron fence restricts access to the property. It is anticipated that the Site use will remain industrial/commercial.

Current surrounding properties consist of property owned by Marcey Properties, LLC, occupied by commercial businesses to the south/southeast of the Site; Kingsbury Street and property owned by General Iron, LLC to the west of the Site; Marcey Street to the east of the site; and property owned by Commonwealth Edison Company, currently used as a transformer station and equipment storage yard, to the north/northwest of the Site. In addition, the North Branch of the Chicago River is approximately 360 feet to the west of the Site.

3.1.2 Water Use

The City of Chicago supplies drinking water to the Site and surrounding areas from Lake Michigan, and an ordinance prohibits the installation of groundwater wells for potable water production.

3.2 IDENTIFICATION OF EXPOSURE PATHWAYS

The second step in exposure assessment is to identify potential human exposure pathways. An exposure pathway describes mechanisms by which selected populations may be exposed to COPCs. An exposure pathway analysis links sources, locations and types of environmental releases with population locations and activity patterns to determine significant pathways of human exposure.

For a potential risk to exist, the exposure pathway for a media must be complete. A complete exposure pathway has four elements:

- Source and mechanism of chemical release;
- Retention or transport medium (e.g., air, water, and soil);
- Potential human contact point with impacted medium (exposure point); and
- Exposure route (e.g., ingestion, inhalation or dermal contact) at the exposure point.

Potential risk associated with some media is limited or nonexistent because exposure pathways are incomplete. Media are discussed in terms of the exposure potential for various populations.

3.2.1 Source and Mechanism of Chemical Release

COPCs were detected in the Site soil sampled in June 2002. All surface soil from 0 to 3 feet bgs, as well as a small area of subsurface soil to 4.5 feet bgs, was removed during remediation activities. Remaining subsurface soil containing COPCs may be exposed during excavations conducted in the future by utility workers or construction workers.

3.2.2 Transport of Chemicals to Potential Receptors

COPCs may be transported to individuals at an industrial property from soils by direct skin contact, soil ingestion, inhalation of fugitive dust and inhalation of chemical vapors released from the soil.

3.2.3 Exposure Scenarios

This Tier 3 RA evaluates the utility worker and construction worker receptors. The industrial worker receptor was not evaluated because there were no TACO Tier 1 inhalation exceedences for the industrial worker in subsurface soil. The following scenarios were developed:

- Post-Remediation Utility Worker (evaluates COPCs in soil from 3 to 11 feet bgs)
  - Incidental ingestion of soil.
  - Dermal contact with soil.
  - Inhalation of fugitive dust from soil.
  - Inhalation of chemical vapors released from soil.
- Post-Remediation Construction Worker (evaluates COPCs in soil from 3 to 11 feet bgs)
  - Incidental ingestion of soil.
  - Dermal contact with soil.
  - Inhalation of fugitive dust from soil.
  - Inhalation of chemical vapors released from soil.

3.3 QUANTIFICATION OF EXPOSURE

The third step in exposure assessment is to quantify the magnitude, frequency, and duration of exposure for populations and exposure pathways. This step is often conducted in two stages: exposure concentrations are estimated; then, pathway-specific intakes are quantified. This section discusses only exposure concentrations. Section 5.0 addresses pathway-specific intakes.

3.3.1 Chemical Concentrations in Soil

The utility worker and construction worker are potentially exposed to soil on the Site at locations where the maximum detected concentrations of COPCs occur. In accordance with TACO guidelines (35 IAC 742.225), no averaging of soil sample results was conducted for COPCs for this RA. The maximum detected concentration of each COPC was used as the medium-specific exposure point concentration (EPC) in calculations used to characterize risk for both reasonable maximum exposure (RME) and central tendency (CT) exposures. Table 3 presents the RME and CT EPC concentrations for the two scenarios.

3.3.2 Modeled Air Concentrations

Vapor transport modeling is used to determine COPC concentrations in air based on COPC concentrations in soil. These vapor concentrations are used in the evaluation of the inhalation exposure pathway for the post-remediation utility worker and post-remediation construction worker scenarios. The equations and variables used to calculate partitioning of COPCs between soil and soil gas, as well as vapor emission rates and vapor concentrations in air are presented in the following subsections. Tables 4 through 8 present the calculations and resultant values for soil/vapor partitioning, vapor emission rates and vapor concentrations in outdoor air for the post-remediation utility worker and post-remediation construction worker scenarios.

3.3.2.1 Contaminant Partitioning from Soil Particles

A partitioning equation (USEPA 1988) was used to estimate the chemical concentrations in soil (mg/kg) in equilibrium with the chemical vapor concentrations (mg/m^3) in soil gas. The partitioning equation uses soil physical properties, such as bulk density, porosity, and organic carbon content, as well as chemical-specific parameters such as organic partition coefficient and Henry's Law constant. Soil physical properties used in the calculations were default values from Table B, Appendix C of TACO (35 IAC 742). The maximum detected concentration in soil for each volatile COPC was used in the vapor transport modeling.

3.3.2.2 Vapor Emission Rate to the Surface

The potential for vapor migration in soil gas to the ground surface was estimated using an equation based on Fick's First Law of steady-state diffusion (USEPA 1988). This vapor emission rate equation incorporates several conservative assumptions. It ignores biodegradation, removal by leaching, and the adsorption of vapor to soil. It also assumes no depletion of the source to reduce the emission rate and a zero concentration of the contaminant at the ground surface. Diffusion through soil gas is the controlling factor.

Chemical vapor concentration values in soil at the source were determined from the partitioning equations referenced in Section 3.3.2.1. The effective diffusion coefficient was calculated using chemical-specific air diffusivity values and soil air-filled porosity. Soil air-filled porosity was determined by subtracting the soil water-filled porosity (moisture content) from the total soil porosity. The area assumed to be available for diffusion of vapors through soil gas was set to correspond to the size of the near-field box model (USEPA 1988, GRI 1996) discussed in Section 3.3.2.3. For the post-remediation utility worker and the post-remediation construction worker scenarios, the average distance vapors were assumed to travel (length of flow) was set at 8 feet (1.989 meters), the distance to soil containing maximum concentrations of VOCs included in the RA.

3.3.2.3 Vapor Concentration in Outdoor Air

The resultant vapor emission rates were entered into a near-field box model (USEPA 1988, GRI 1996) to estimate concentrations in outdoor air. The near-field box model is a representation of the effective mixing zone in which evolved contaminants are mixed with fresh air and then diluted and delivered to a receptor location.

For the post-remediation utility worker modeling effort, the near-field box was sized to a width of 6 feet (1.83 meters) representing a utility trench width, with a box height of 6.56 feet (2 meters). For the post-remediation construction worker modeling efforts, the near-field box was sized to a width of 110.85 feet (33.79 meters) based on nominal Site dimensions, with a box height of 6.56 feet (2 meters). These box sizes are consistent with the area used for vapor emission rates previously discussed and also incorporate a conservative assumption that a receptor always stands in the space directly over contaminated soil. Wind speed through the box (U_m) was calculated based on the Chicago annual mean wind speed, which was measured at a height of 32.81 feet (10 meters) (U_{10}) (USEPA 1996).

3.4 UNCERTAINTIES ASSOCIATED WITH EXPOSURE ASSESSMENT

Estimated exposure levels to COPCs were generated with a number of uncertainties. Generally, these uncertainties are inherent in RAs, particularly because of the type and amount of data that can be collected in the short duration of sampling episodes. A summary of the most important uncertainties follows.

- Although current exposure levels are based on measured concentrations in the media of concern, these values are uncertain because of analytical variation.
- The use of maximum detected COPC concentrations for EPCs may overestimate the actual dose

to which a utility worker and construction worker are exposed.

- COPC concentrations are assumed to remain static from the time of sampling, with no adjustment for dilution, biodegradation, or volatilization. This assumption may result in an overestimation of the actual average dose.
- During site investigation sampling, subsurface soil samples were typically selected for analysis where the highest level of COPCs were expected, based on visual observations. This sampling practice may result in an overestimation of the actual exposure dose.
- The emission rate calculation for soil vapors does not take biodegradation, removal by leaching, or adsorption of vapor to soil into account, resulting in possible overestimation of the exposure dose.

* * * * *

4.0 TOXICITY ASSESSMENT

Toxicity assessment identifies potential adverse health effects associated with chemical exposures (hazard identification) and estimates the relationship between the magnitude of exposure and the likelihood of adverse effects (dose-response evaluation). Dose-response relationships are derived using human, animal and/or supporting data. These relationships are then used to determine a toxicity value that can be used to estimate risk. The toxicity assessment is conducted separately for the noncarcinogenic and carcinogenic effects of COPCs because differences exist between the noncarcinogenic and carcinogenic dose-response variables. The magnitude of potential noncarcinogenic effects is evaluated using either an oral or dermal reference dose (RfD), or an inhalation reference concentration (RfC) value. Potential carcinogenic effects are quantified using a slope factor (SF) or an inhalation unit risk (UR). These toxicity values are compiled by the USEPA for individual COPCs for which dose-response data are available.

Toxicity values were obtained for this RA from the Integrated Risk Information System (IRIS), which is an online database of current USEPA-derived toxicity values (USEPA 2005). If toxicity values were not listed in IRIS, the risk-based concentration table developed by USEPA Region III (USEPA 2004b) was used. Subchronic toxicity values for evaluating noncarcinogenic health effects for short-term exposures were obtained from the USEPA Health Effects Assessment Summary Tables (HEAST) (USEPA 1997b). HEAST provides subchronic values not available in IRIS.

4.1 TOXICITY VALUES FOR NONCARCINOGENIC EFFECTS

Examples of noncarcinogenic health effects from exposure to toxic chemicals include liver and kidney damage, decreased fertility, birth defects and damage to the central nervous system. The human body has detoxification mechanisms that can convert toxic chemicals into nontoxic products and excrete them; however, these mechanisms have a limited ability to process toxins. An underlying assumption in risk calculations is that a threshold exists for initiation of noncarcinogenic effects. For calculating noncarcinogenic risk, the RfD or RfC is used to estimate this threshold. The USEPA defines the chronic RfD as “an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious effects during a lifetime” (USEPA 1989). Similarly, a chronic RfC is defined as “an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime” (USEPA 2005).

A chemical's RfD is determined based on the relationship between the dose of the noncarcinogen and the frequency of adverse health effects observed in experimental animals or humans (USEPA 1989). RfDs are obtained by dividing the level at which no adverse effect is observed by uncertainty factors to account for study-specific uncertainties, such as sensitive subpopulations, extrapolation of animal data to humans, and use of short-term exposure data. A chemical’s inhalation RfC is analogous to the oral RfD and is also

based on the assumption that thresholds exist for certain toxic effects. The inhalation RfC considers toxic effects for both point-of-entry and effects peripheral to the respiratory system.

Subchronic RfDs and RfCs are used to characterize potential noncarcinogenic effects for short-term exposure. Utility workers and construction workers are exposed for short periods of time, usually of a year or less; therefore, subchronic RfDs and RfCs were used to calculate risks, if they were available. When RfDs or RfCs were not available for a subchronic exposure period, the chronic RfD or RfC was used for risk calculations.

RfDs may vary with exposure route; therefore, they are developed for specific exposure routes (ingestion and, in some cases, inhalation). RfDs are expressed in units of milligram (mg) of chemical exposure per kilogram (kg) body weight of the exposed individual per day (mg/kg-day). Subchronic or chronic oral RfDs for the ingestion exposure route are available for most volatile organic and inorganic COPCs as well as some semivolatile organic COPCs. RfDs for dermal absorption are estimated using the oral RfD. To obtain the dermal RfD, the oral RfD is multiplied by a chemical-specific gastrointestinal absorption efficiency when the oral RfD is derived from an administered dose rather than an absorbed dose. If a chemical-specific gastrointestinal absorption efficiency is not available for a COPC, or is greater than 50% for organic chemicals, then a gastrointestinal absorption efficiency of 100% is assumed (USEPA 2004a).

Non-carcinogenic toxicity values for the inhalation exposure pathway are calculated as RfCs in milligrams per cubic meter (mg/m^3). Inhalation RfCs are available for benzene, 2-butanone, carbon disulfide, ethylbenzene, styrene, toluene, total xylenes (used for m,p-xylenes and o-xylene), naphthalene, beryllium, hexavalent chromium and mercury. RfCs with systemic effects are converted to inhalation RfDs by assuming an inhalation rate (IR) of 20 m^3/day and a body weight (BW) of 70 kg, where: RfD (mg/kg-day) = RfC (mg/m^3) x (20 m^3/day ÷ 70 kg). Benzene, 2-butanone, carbon disulfide, ethylbenzene, styrene, total xylenes and mercury have systemic effects, and the RfCs were converted to RfDs. The toxic effects of toluene, naphthalene, beryllium and hexavalent chromium are point-of-entry effects; therefore, the RfCs for these three COPCs were not converted to RfDs.

Systemic effects for benzene, 2-butanone, carbon disulfide, ethylbenzene, styrene, total xylenes and mercury are supported by the following studies used to develop RfC values. The benzene RfC is based on critical effects from studies of decreased lymphocyte count in humans (Rothman et al., 1996). The 2-butanone RfC is based on critical effects from studies of decreased fetal birth weight (Schwetz et al. 1991; Mast et al. 1989). The carbon disulfide RfC is based on critical effects from studies of the peripheral nervous system (Johnson et al. 1983). The ethylbenzene RfC is based on critical effects from studies of developmental effects (Andrew et al. 1981; Hardin et al. 1981). The styrene RfC is based on critical effects from studies of central nervous system effects (Mutti et al. 1984). The total xylenes RfC is based on critical effects from studies of impaired motor coordination (Korsak et al., 1994). The mercury RfC is based on critical effects from studies of hand tremor, increases in memory disturbance and autonomic

dysfunction (Fawer et al. 1983; Piikivi et al. 1989; Ngim et al. 1992; Liang et al. 1993). All toxicity studies are cited from IRIS (USEPA 2005). The RfCs for these compounds were converted to RfDs based on their systemic effects.

For COPCs where the RfD or RfC is not available, the corresponding exposure route was not evaluated for noncarcinogenic effects. Table 9a presents oral and dermal RfDs for COPCs in soil for all scenarios, and Table 9b presents inhalation RfCs and RfDs.

4.2 TOXICITY VALUES FOR CARCINOGENIC EFFECTS

SFs and URs are toxicity values used to estimate the excess probability of cancer in an exposed population. A SF represents the probability of a response per unit intake of a chemical over a lifetime and is given in risk per mg/kg/day. SFs are typically estimated by assuming a linear multi-stage model of the relationship between administered dose and observed cancer rate. This non-threshold theory assumes even a small number of molecules (possibly even a single molecule) of a carcinogen may cause changes in a single cell that may lead to the onset of cancer. Though SFs are applied to long-term, low dose exposure scenarios, they are usually estimated from high dose, short-term animal studies. The SF generally represents the upper limit of a chemical's carcinogenic potency. The UR is the carcinogenic toxicity value used for the inhalation exposure route, and is the upper-bound excess lifetime cancer risk estimated to result from continuous exposure to a chemical at a concentration of 1 $\mu g/m^3$ in air.

The USEPA classifies each chemical according to the weight-of-evidence system, which is based on the extent to which the chemical has been shown to be a carcinogen in humans, experimental animals or both. This system classifies potential carcinogens as Group A, B1, B2, C, D or E. Group A chemicals are classified as human carcinogens with sufficient evidence from epidemiologic studies to support a causal association between human exposure and cancer. Group B1 and B2 chemicals are classified as probable human carcinogens. Group B1 applies to chemicals with limited evidence of carcinogenicity in humans from epidemiologic studies, and Group B2 applies to chemicals with inadequate evidence of carcinogenicity in humans, but sufficient evidence of carcinogenicity in animals. Group C applies to chemicals with limited evidence of carcinogenicity in animals. Group D is not classified because of inadequate evidence of carcinogenicity in animals, and Group E applies to chemicals that show no evidence of carcinogenicity in humans, where at least two adequate animal tests or both epidemiologic and animal studies have been conducted.

Benzene and arsenic are the only compounds in this RA classified as Group A, human carcinogens with sufficient evidence from epidemiologic studies to support a causal association between human exposure and cancer for both ingestion and inhalation exposure routes. Hexavalent chromium is classified as Group A for the inhalation exposure route and Group D for the ingestion exposure route. Most carcinogenic compounds in this RA, including carcinogenic PAH compounds, are classified as Group B2, probable human carcinogens with sufficient evidence of carcinogenicity in animals but inadequate evidence in humans. Naphthalene is classified as Group C, a possible human carcinogen.

Chemical-specific carcinogenic potency depends on its exposure pathway (ingestion, dermal absorption or inhalation), and USEPA has established pathway-specific toxicity values for exposure by ingestion (oral toxicity) and inhalation.

Oral SFs are available for benzene; several SVOCs, including carcinogenic PAHs; the two PCBs (aroclors 1242 and 1254); and arsenic. Dermal SFs are derived by dividing the oral SF by the chemical-specific gastrointestinal absorption efficiency. If a chemical-specific gastrointestinal absorption efficiency is not available for a COPC, or is greater than 50% for organic chemicals, then a gastrointestinal absorption efficiency of 100% is assumed (USEPA 2004a).

Carcinogenic effects for the inhalation exposure route are expressed in terms of risk per unit concentration of substance in air (UR). For systemic carcinogens, URs are converted to inhalation SFs by assuming an IR of 20 m^3/day and a BW of 70 kg, where SF $(mg/kg\text{-}day)^{-1}$ = UR $(\mu g/m^3)^{-1}$ x (70 kg ÷ 20 m^3/day x 1000 µg/mg). UR values should not be converted to SFs when the carcinogenic effect is at the point of entry only. Inhalation UR values are available for benzene, arsenic, beryllium, cadmium and hexavalent chromium. A USEPA/National Center for Environmental Assessment (NCEA) provisional UR is available for benzo(a)pyrene (USEPA 2004b), and URs for other PAHs were derived using USEPA benzo(a)pyrene toxicity equivalency factors. The UR for benzene was converted to a SF. The IRIS recommended inhalation SF for PCBs was used for arochlors 1242 and 1254. The URs for carcinogenic PAHs, arsenic, beryllium, cadmium and hexavalent chromium, which are point-of-entry carcinogens, were used directly to calculate carcinogenic risk.

For COPCs that do not have a SF or inhalation UR, risk for the corresponding exposure route is not evaluated. Table 9a presents oral and dermal SFs in soil for all scenarios, and Table 9b presents inhalation URs and SFs.

4.3 UNCERTAINTIES RELATED TO TOXICITY ASSESSMENT

Estimations of the adverse health effects resulting from exposure to chemicals are imprecise because of uncertainties in dose-response relationships. Toxicity information for COPCs is limited and corresponding degrees of uncertainty associated with calculated toxicity values vary.

The following uncertainty sources for toxicity values may overestimate or underestimate risks:

- Dose-response data from high dose experiments used to predict adverse health effects from exposure to low, site-related doses.
- Dose-response data from short-term exposure studies used to predict long-term adverse health effects.
- Dose-response data from experimental animal studies used to predict adverse health effects in humans.

- Dose-response data from homogeneous experimental animal populations used to predict adverse effects in diverse human populations.

Most RfC and RfD values have uncertainty factors ranging from 100 to 1,000. The high uncertainty factor accounts for the uncertainty involved in extrapolating to low doses from high dose studies (USEPA 1989).

Carcinogenic SFs have two important sources of uncertainty: the dose-response curve is assumed to be linear, and no threshold dose for cancer induction is assumed. Carcinogens may cause cancer by several different mechanisms. Several types of dose-response curves could result. Data are inadequate to support more detailed assumptions regarding dose response. Burmaster and Von Stackelberg (1988) found that uncertainties associated with carcinogenic SFs make the greatest contribution to the total uncertainty of a carcinogenic risk estimate.

Most carcinogenic compounds in this RA, including carcinogenic PAH compounds, are classified as Group B2, probable human carcinogens with sufficient evidence of carcinogenicity in animals but inadequate evidence in humans. Numerous uncertainties exist regarding carcinogenicity evidence based on animal studies. Animal studies often use high doses to test carcinogenic effects to provide more rapid results and decrease the number of animals needed; however, the high dose may cause cellular damage. When cellular damage occurs, natural repair mechanisms increase the overall rate of cell growth. The result is an increased rate of cancer due to increased cell growth rate and not the carcinogenic effects of the chemical. It is also assumed that all compounds that are carcinogenic in animals are also carcinogenic in humans. Group B2 classified contaminants produce considerable uncertainty in the carcinogenic risk estimates.

Carcinogenic and noncarcinogenic effects from dermal contact with soils are estimated by extrapolating an absorbed toxicity factor for those contaminants with oral toxicity values based on administered doses and which could be extrapolated based on effect. A great deal of uncertainty exists regarding the absorption rates used for both dermal and oral exposure routes. In general, factors used in dermal route toxicity estimation are conservative and likely overestimate risk.

Some chemicals do not have enough quality toxicity testing to assign toxicity values. Therefore, risks may be underestimated in this RA due to the lack of these toxicity values.

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5.0 SCENARIO EVALUATION

The following section discusses general procedures for exposure assessment and risk calculation and applies these procedures to the three scenarios. Results and uncertainties of risk calculations are then discussed by exposure scenario for both carcinogenic and noncarcinogenic cases.

5.1 SCENARIO EXPOSURE ASSESSMENT

The exposure assessment estimates the magnitude of potential human exposure to site-related COPCs for a given scenario through the following steps:

- Characterize exposure setting;
- Identify exposure pathways;
- Quantify exposure; and
- Discuss uncertainties related to exposure assessment.

The exposure setting is characterized by describing the environment to which each identified receptor is exposed. Pertinent exposure pathways are then identified based on the exposure setting. Quantifying exposure for populations and pathways of interest involves determining the exposure point concentrations and pathway-specific daily intakes (DI). Table 3 presents the RME and CT exposure point concentrations as developed in Section 3.3 for the post-remediation utility worker and post-remediation construction worker scenarios.

An average daily intake, DI, (in mg chemical of interest per kg of body weight per day), is calculated using the following equation:

$$\mathbf{DI = (C \times HIF)}$$

Where:

DI = Daily Intake (mg/kg-day).
C = Concentration = RME or CT (units are media-dependent).
HIF = Human Intake Factor (units are media-dependent).

and

$$\mathbf{HIF = \frac{(CR \times EF \times ED)}{BW \times AT}}$$

Where:

CR = Contact Rate (units are media-dependent).
EF = Exposure Frequency (workdays/year).
ED = Exposure Duration (years).
BW = Body Weight (kg).
AT_n = Noncarcinogenic Averaging Time = 7-day week equivalent of EF.
AT_c = Carcinogenic Averaging Time = 70 years.

The HIF for various soil exposure routes may incorporate additional variables such as fraction of soil ingested (oral exposure) or soil adherence to skin factors (dermal exposure). HIF for the inhalation exposure route omits BW and CR variables when RfCs or URs are used to calculate toxicity.

The DI is an average intake over a lifetime (70 years) for carcinogenic risk calculations and an average intake over the duration of exposure for noncarcinogenic risk estimates. Values for CR, EF and ED may vary for RME and CT. The values for the DI calculations and the rationale used in their selection are presented in the sections pertaining to each individual scenario. As discussed earlier, the RME evaluates risk for the highest exposure that could reasonably be expected to occur over time. The CT is intended to evaluate risk for an average exposure as a comparison to the RME.

5.2 SCENARIO RISK CHARACTERIZATION

The risk characterization process involves the estimation of human health risks from COPCs based on toxicity and exposure information. Risk characterization consists of the following steps:

- Evaluate noncarcinogenic risk;
- Evaluate carcinogenic risk; and
- Characterize uncertainties related to risk.

Noncarcinogenic and carcinogenic risks are estimated for each COPC and for each exposure pathway when toxicity data are available. The risk is found for both the noncarcinogenic and carcinogenic case for each exposure pathway by summing the risk associated with each COPC. The total risk for each scenario is then found by summing the risk estimated for each exposure pathway.

5.2.1 Noncarcinogenic Risk Values

Noncarcinogenic risks are expressed as a hazard quotient (HQ), which is the ratio of the estimated DI to the RfD or RfC. A HQ greater than 1 indicates that the estimated dose exceeds the RfD or RfC for the contaminant. It is not a statistical probability of the incidence or severity of an adverse health effect, but rather a simple numerical index to identify potential exposure problems (USEPA 1989). The HQ is calculated as follows:

$$\mathbf{HQ = (DI / RfD) \text{ or}}$$

$$\mathbf{= (DI / RfC)}$$

Where:

HQ = Hazard Quotient (unitless).
DI = Daily Intake (mg/kg-day).
RfD = Reference Dose (mg/kg-day).
RfC = Reference Concentration (mg/m^3).

Assuming the effect of exposure to numerous chemicals where no single chemical exceeds a threshold could result in an adverse health effect, the chemical-specific HQ values are summed to calculate the total hazard index (HI) for a given exposure pathway.

$$\mathbf{HI = (HQ_1 + HQ_2 + ... + HQ_j)}$$

Where:

HI = Hazard Index (unitless).

HQ_j = Hazard Quotient of the jth chemical (unitless).

An HI greater than 1 suggests that exposure to all COPCs collectively exceeds a generalized level of concern. The level of concern increases as the HI approaches and exceeds a value of 1. It should be noted, however, that the level of concern does not increase linearly as the HI approaches 1 because individual RfD and RfC values for various substances do not have equal accuracy or precision and are not based on the same severity of toxic effects. The HI may combine noncarcinogenic HQs of chemicals of interest that produce different toxicological effects (e.g., liver damage versus kidney damage) and combines RfDs and RfCs that exhibit varying levels of uncertainty. Therefore, the HI should be regarded as a general indicator of the degree of concern rather than a quantified estimator of potential health effects. When the initial HI calculated for a particular study area is greater than 1, noncarcinogenic risks can be evaluated in greater detail if that is justifiable for the specific situation.

5.2.2 Carcinogenic Risk Values

Carcinogenic risks are expressed as the excess (above background) probability that an individual will develop cancer during a lifetime if exposed to a chemical. Because the SF is often an upper 95 UCL of the slope of the dose-response curve, carcinogenic risk estimates calculated from SFs are generally upper-bound estimates. This value is calculated using the average DI over a lifetime and the SF for the COPC as follows:

$$\mathbf{Excess\ Risk = DI \times SF}$$

Where:

DI = Daily Intake (mg/kg-day).

SF = Slope Factor $(mg/kg\text{-}day)^{-1}$.

The following equation is used to calculate an inhalation carcinogenic risk using the UR and is also an upper-bound estimate of risk:

$$\mathbf{Excess\ Risk = DI \times UR \times 1000\ \mu g/mg}$$

Where:

DI = Daily Intake (mg/kg-day).

UR = Unit Risk $(\mu g/m^3)^{-1}$.

Only lifetime average DIs are used in conjunction with SFs and URs to obtain excess lifetime cancer risk estimates because SFs and URs are formulated on the basis of average lifetime exposures.

The observed national background cancer risk (no exposure to site contaminants) is approximately 1 in 4. In the National Contingency Plan, the USEPA set an excess cancer occurrence of 1 in 1 million (a risk of 1×10^{-6}) as the point of departure for determining remediation goals for Superfund sites (Title 40 of the Code of Federal Regulations, Part 300.430[e][2]).

According to the Illinois EPA, a site with carcinogenic risks less than 1×10^{-6} generally should be considered a no-action site. For sites with a risk greater than 1×10^{-6}, further site evaluation is required. For sites with a carcinogenic risk greater than 1×10^{-4}, corrective action is normally required (Illinois EPA 1994).

5.3 POST-REMEDIATION UTILITY WORKER SCENARIO

In this section, the exposure assessment and risk characterization for the post-remediation utility worker scenario is explained. Specific assumptions and values for the exposure scenario are discussed, followed by the noncarcinogenic and carcinogenic risk evaluation results.

5.3.1 Exposure Assessment

5.3.1.1 Characterization of Exposure Setting

This scenario evaluates potential exposure for a post-remediation utility worker at the south portion of the Site. The top 3 feet of soil, as well as a small area of subsurface soil to 4.5 feet bgs, were removed across the Site during remediation and replaced with imported clean fill. Therefore, the post-remediation utility worker is assumed to be exposed to the COPCs in the soil from 3 feet to a depth of 11 feet bgs, the assumed maximum depth of a utility excavation for the south portion of the Site. During work related activities at the Site, ingestion of and dermal contact with soil are likely to occur, as well as inhalation of airborne soil and vapors volatilized from soil.

5.3.1.2 Identification of Exposure Pathway

The following pathways were identified for the post-remediation utility worker:

- Incidental ingestion of soil resulting from placing soil-contaminated hands or objects in the mouth and also possibly from dust caught in the nose and throat being moved to the back of the mouth and swallowed.
- Dermal contact with soil resulting in the absorption of COPCs.
- Inhalation of airborne soil and dust, which results from breathing respirable particles of soil containing COPCs.
- Inhalation of VOC vapors released from soil during utility repair or construction activities and disruption of the soil surface.

5.3.1.3 Quantification of Exposure

Most values used for HIFs were obtained from USEPA and Illinois EPA guidance (USEPA 1989, 1991, 1997a, 2002, 2004a, and Illinois Administrative Code [IAC] 2002) and are summarized in Table 10. An assumed exposure frequency of 20 days per year for RME and 10 days per year for CT was used based on anticipated utility construction activities at the site. Tables 11 through 18 present exposure concentrations and DIs for the above exposure pathways.

5.3.1.4 Uncertainties Related to Exposure Assessment

The following exposure assessment uncertainties were identified:

- The post-remediation utility worker scenario evaluates exposure to Site soil. The user may not be exposed as frequently or with the magnitude assumed for this RA; therefore, exposure may be overestimated.
- The post-remediation utility worker is assumed to be exposed to soil containing the maximum detected concentrations of COPCs, which may overestimate risk.
- Exact site-specific data on human activity patterns are not available; therefore, assumed values for soil contact rates are uncertain. Values selected may be conservative or liberal, leading to an overestimation or underestimation of risk, respectively.
- Dermal uptake of soil COPCs is difficult to estimate. The uptake rate depends on both chemical-specific and Site soil characteristics. Absorption values used to estimate dermal uptake are highly uncertain, possibly leading to an overestimation or underestimation of dose.
- The exposure to both fugitive dust and vapors from VOCs in soil is assumed for VOCs, which may overestimate dose.

5.3.2 Risk Characterization

5.3.2.1 Noncarcinogenic Risk Evaluation

Tables 11 through 18 present calculations of results of noncarcinogenic hazards for the post-remediation utility worker scenario. Table 28 presents the combined HI values. The overall scenario noncarcinogenic HI is 0.5 for an RME and 0.1 for CT, which are both below the generalized level of concern of 1 for noncarcinogenic effects.

5.3.2.2 Carcinogenic Risk Evaluation

Tables 11 through 18 present calculations of lifetime cancer risks for the post-remediation utility worker scenario. Table 28 presents the combined carcinogenic risk values. The excess lifetime cancer risk is 6×10^{-7} for an RME and 8×10^{-8} for CT. The RME and CT cancer risks are below the Illinois EPA no-action level of 1×10^{-6}.

5.3.2.3 Uncertainties Related to Risk Evaluation

Uncertainty factors already presented in the preceding sections (exposure assessment and toxicity assessment) also contribute uncertainty to risk estimates for the following reasons:

- COPC exposure concentrations may be overestimated or underestimated because of the limited number of samples collected to represent Site soil.
- Assumed exposure values for the duration and rate of exposure may not represent actual values.
- Toxicity values are uncertain because of dose-response and extrapolation factors.
- Carcinogenic and noncarcinogenic risks are each combined across COPCs. It is assumed that chemical-specific risks are independent and additive; however, COPCs may interact to produce a less than additive effect or a more than additive effect. Chemical interaction data are lacking for most chemical mixtures. In the absence of this information, the standard approach is to assume COPC additivity, which may result in an overestimation or underestimation of risk.

5.4 POST-REMEDIATION CONSTRUCTION WORKER SCENARIO

In this section, the exposure assessment and risk characterization for the post-remediation construction worker scenario is explained. Specific assumptions and values for the exposure scenario are discussed, followed by the noncarcinogenic and carcinogenic risk evaluation results.

5.4.1 Exposure Assessment

5.4.1.1 Characterization of Exposure Setting

This scenario evaluates potential exposure for a post-remediation construction worker at the Site. The top 3 feet of soil, as well as a small area of subsurface soil to 4.5 feet bgs, will be removed across the site during remediation and replaced with imported clean fill. Therefore, during any future construction work at the site, excavations could provide exposure to COPCs in soil from 3 feet to a depth of 11 feet bgs, an assumed maximum depth for typical construction excavations on the south portion of the Site. During construction work, ingestion of and dermal contact with soil are likely to occur, as well as inhalation of airborne soil and vapors volatilized from soil.

5.4.1.2 Identification of Exposure Pathway

The following pathways were identified for the post-remediation construction worker:

- Incidental ingestion of soil resulting from placing soil-contaminated hands or objects in the mouth and possibly from dust caught in the nose and throat being moved to the back of the mouth and swallowed.
- Dermal contact with soil resulting in the absorption of COPCs.
- Inhalation of airborne soil and dust, which results from breathing respirable particles of soil containing COPCs.
- Inhalation of VOC vapors released from soil during construction activities and disruption of the soil surface.

5.4.1.3 Quantification of Exposure

Most values used for the HIFs were obtained from the USEPA and Illinois EPA guidance (USEPA 1989, 1991, 1997a, 2002, 2004a, and IAC 2002) and are summarized in Table 19. A Site-specific exposure frequency of 250 days per year for RME and 125 days per year for CT was assumed to represent a conservative average redevelopment construction project of 1 year for the RME and 6 months for the CT. Tables 20 through 27 present exposure concentrations and DIs for the above exposure pathways.

5.4.1.4 Uncertainties Related to Exposure Assessment

Uncertainties similar to those discussed for the post-remediation utility worker (Section 5.3.1.4) also apply to the post-remediation construction worker scenario.

5.4.2 Risk Characterization

5.4.2.1 Noncarcinogenic Risk Evaluation

Tables 20 through 27 present calculations of results of noncarcinogenic hazards for the post-remediation construction worker scenario and Table 28 presents the combined HI values. The overall scenario noncarcinogenic HI is 0.4 for an RME and 0.1 for CT which are both below the generalized level of concern of 1 for noncarcinogenic effects.

5.4.2.2 Carcinogenic Risk Evaluation

Tables 20 through 27 present calculations of lifetime cancer risks for the post-remediation construction worker scenario and Table 28 presents the combined carcinogenic risk values. The excess lifetime cancer risk is 5×10^{-6} for an RME and 8×10^{-7} for CT. The RME cancer risk is above the Illinois EPA no-action level of 1×10^{-6} but falls within the concentration range of 1×10^{-6} and 1×10^{-4} where additional site evaluation is required. The CT cancer risk is below the Illinois EPA no-action level of 1×10^{-6}.

5.4.2.3 Uncertainties Related to Risk Evaluation

Uncertainties similar to those discussed for the post-remediation utility worker scenario (Section 5.3.2.3) also apply to the post-remediation construction worker scenario.

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6.0 RISK ASSESSMENT SUMMARY

Noncarcinogenic and carcinogenic risks for the post-remediation utility worker and post-remediation construction worker scenarios were evaluated. Table 28 summarizes the total risk for these scenarios for RME and CT. These scenarios evaluate potential risk to both a utility worker and a construction worker after remedial activities occurred in the south portion of the Site. Remedial activities conducted in May, June and July 2003 included a removal of 3 feet of soil across the entire Site along with deeper hot spot removal.

Noncarcinogenic risks were determined by calculating the HI. HIs are determined by summing hazard quotients for each noncarcinogenic chemical for all exposure pathways. An HI greater than 1 suggests that exposure to all chemicals collectively exceeds a generalized level of concern. The HI should be regarded as a general indicator of the degree of concern rather than a quantified estimator of potential health effects. Both RME and CT HI values were below the generalized level of concern of 1 for both scenarios.

Carcinogenic risks are expressed as the excess (above background) probability that an individual will develop cancer during a lifetime if exposed to a chemical. The observed national background cancer risk (no exposure to site contaminants) is approximately 1 in 4. According to the Illinois EPA, a site with carcinogenic risks less than 1×10^{-6} generally should be considered a no-action site. For sites with a carcinogenic risk greater than 1×10^{-6}, further evaluation of the site is required to re-evaluate risk. For a site with a carcinogenic risk greater than 1×10^{-4}, corrective action is normally required (Illinois EPA 1994).

The RME risk value for the post-remediation utility worker falls below the Illinois no-action level of 1×10^{-6}. The RME risk of 5×10^{-6} for the post-remediation construction worker scenario is greater than the Illinois EPA no-action level of 1×10^{-6}. This risk falls within the range of 1×10^{-6} to 1×10^{-4} where additional site evaluation is required.

To further evaluate the site for a risk-based closure, the CT risk calculations were prepared to evaluate an average exposure as a comparison to the maximum exposure evaluated by the RME. The CT risks of 8×10^{-7} for the post-remediation construction worker is below 1×10^{-6}.

Title 40 of the Code of Federal Regulations, Part 300, Subpart E (40 CFR 300, Subpart E) defines generally acceptable exposure levels for known or suspected carcinogens as concentration levels that represent an excess upper bound lifetime cancer risk to an individual between 10^{-4} and 10^{-6} using information on the relationship between dose and response. This range is used to define acceptable risk. All carcinogenic risk estimates presented above are either below or within this range.

Remedial action activities at the Site were conducted on about one-third the total soil volume between ground surface and 11 feet bgs. Again, all the surface soil was removed and backfilled with imported clean soil. The acceptable CT risks in conjunction with the remedial action activities are indicative that the Site soil evaluated in this RA does not contain COPC concentrations that pose a potential risk of either noncarcinogenic or carcinogenic adverse health effects to a post-remediation utility worker or construction worker.

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TABLES
TIER 3 RISK ASSESSMENT EVALUATION

Table 1
Soil Analytical Results
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Compound/Analyte	Sample Location and Depth (feet below ground surface)/Concentration					
	SP13-002 10-11	SP14B-001 6.5-7.5	SP16-001 3-4	SP16-002 7-8	SP18-002 8-9	SP19-002 5-6
TCL Volatiles (mg/kg)						
Acetone	0.046 U	0.068	0.059 U	0.16 J	0.1	0.23
Benzene	0.0091 U	0.011 U	0.012 U	0.03 J	0.0088 U	0.019 U
Bromodichloromethane	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Bromoform	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Bromomethane	0.018 U	0.022 U	0.024 U	0.028 UJ	0.018 U	0.038 U
2-Butanone	0.018 U	0.034	0.024 U	0.028 UJ	0.018 U	0.038 U
Carbon Disulfide	0.0091 U	0.011 U	0.012 U	0.03 J	0.0088 U	0.019 U
Carbon Tetrachloride	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Chlorobenzene	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Chloroethane	0.018 U	0.022 U	0.024 U	0.028 UJ	0.018 U	0.038 U
Chloroform	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Chloromethane	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Dibromochloromethane	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
1,1-Dichloroethane	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
1,2-Dichloroethane	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
1,1-Dichloroethene	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
cis-1,2-Dichloroethene	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
trans-1,2-Dichloroethene	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
1,2-Dichloropropane	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
cis-1,3-Dichloropropene	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
trans-1,3-Dichloropropene	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Ethylbenzene	0.0091 U	0.011 U	0.012 U	4.7	0.0088 U	0.019 U
2-Hexanone	0.018 U	0.022 U	0.024 U	0.028 UJ	0.018 U	0.038 U
4-Methyl-2-Pentanone	0.018 U	0.022 U	0.024 U	0.028 UJ	0.018 U	0.038 U
Methylene Chloride	0.018 U	0.022 U	0.024 U	0.028 UJ	0.018 U	0.038 U
Styrene	0.0091 U	0.011 U	0.012 U	0.036 J	0.0088 U	0.019 U
1,1,2,2-Tetrachloroethane	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Tetrachloroethene	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Toluene	0.0091 U	0.011 U	0.012 U	0.019 J	0.0088 U	0.019 U
1,1,1-Trichloroethane	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
1,1,2-Trichloroethane	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Trichloroethene	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
Vinyl Chloride	0.0091 U	0.011 U	0.012 U	0.014 UJ	0.0088 U	0.019 U
m,p-Xylene	0.0091 U	0.011 U	0.012 U	0.12 J	0.0088 U	0.019 U
o-Xylene	0.0091 U	0.011 U	0.012 U	2	0.0088 U	0.019 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected; the associated value is the sample reporting limit.
(2) J - Indicates an estimated value.

Table 1 (Continued)
Soil Analytical Results
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Compound/Analyte	Sample Location and Depth (feet below ground surface)/Concentration					
	SP13-002 10-11	SP14B-001 6.5-7.5	SP16-001 3-4	SP16-002 7-8	SP18-002 8-9	SP19-002 5-6
TCL Semivolatiles (mg/kg)						
Bis(2-chloroethoxy)methane	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Bis(2-chloroethyl)ether	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Bis(2-ethylhexyl)phthalate	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
4-Bromophenyl phenyl ether	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Butyl benzyl phthalate	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Carbazole	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
4-Chloro-3-methylphenol	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
4-Chloroaniline	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
2-Chloronaphthalene	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
2-Chlorophenol	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
4-Chlorophenyl phenyl ether	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Dibenzofuran	0.39 U	0.45 U	0.67	0.4 U	0.39 U	0.4 U
1,2-Dichlorobenzene	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
1,3-Dichlorobenzene	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
1,4-Dichlorobenzene	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
3,3´-Dichlorobenzidine	0.78 U	0.9 U	0.84 U	0.8 U	0.79 U	0.8 U
2,4-Dichlorophenol	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Diethyl phthalate	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Dimethyl phthalate	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Di-n-butyl phthalate	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
2,4-Dimethylphenol	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
4,6-Dinitro-2-methylphenol	1.9 U	2.2 U	2 U	1.9 U	1.9 U	1.9 U
2,4-Dinitrophenol	1.9 U	2.2 U	2 U	1.9 U	1.9 U	1.9 U
2,4-Dinitrotoluene	0.3 U	0.34 U	0.32 U	0.3 U	0.3 U	0.3 U
2,6-Dinitrotoluene	0.3 U	0.34 U	0.32 U	0.3 U	0.3 U	0.3 U
Di-n-octyl phthalate	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Hexachlorobenzene	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Hexachlorobutadiene	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Hexachlorocyclopentadiene	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Hexachloroethane	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Isophorone	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
2-Methylnaphthalene	0.39 U	0.45 U	2.3	0.4 U	0.39 U	0.4 U
2-Methylphenol	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
4-Methylphenol	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
2-Nitroaniline	1.9 U	2.2 U	2 U	1.9 U	1.9 U	1.9 U
3-Nitroaniline	1.9 U	2.2 U	2 U	1.9 U	1.9 U	1.9 U
4-Nitroaniline	1.9 U	2.2 U	2 U	1.9 U	1.9 U	1.9 U
Nitrobenzene	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
2-Nitrophenol	1.9 U	2.2 U	2 U	1.9 U	1.9 U	1.9 U
4-Nitrophenol	1.9 U	2.2 U	2 U	1.9 U	1.9 U	1.9 U
N-Nitrosodi-n-propylamine	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
N-Nitrosodiphenylamine	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
2, 2'-Oxybis(1-Chloropropane)	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
Pentachlorophenol	1.9 U	2.2 U	2 U	1.9 U	1.9 U	1.9 U
Phenol	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
1,2,4-Trichlorobenzene	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U
2,4,5-Trichlorophenol	0.78 U	0.9 U	0.84 U	0.8 U	0.79 U	0.8 U
2,4,6-Trichlorophenol	0.39 U	0.45 U	0.42 U	0.4 U	0.39 U	0.4 U

Note:
(1) U - Indicates compound/analyte was analyzed for but not detected; the associated value is the sample reporting limit.

Table 1 (Continued)
Soil Analytical Results
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Compound/Analyte	Sample Location and Depth (feet below ground surface)/Concentration					
	SP13-002 10-11	SP14B-001 6.5-7.5	SP16-001 3-4	SP16-002 7-8	SP18-002 8-9	SP19-002 5-6
PAHs (mg/kg)						
Acenaphthene	0.03 U	0.034 U	0.044	0.03 U	0.03 U	0.03 U
Acenaphthylene	0.03 U	0.034 U	0.14	0.03 U	0.03 U	0.048
Anthracene	0.03 U	0.034 U	2	0.03 U	0.03 U	0.078
Benzo(a)anthracene	0.03 U	0.082	0.71	0.03 U	0.03 U	0.36
Benzo(b)fluoranthene	0.03 U	0.1	0.79	0.03 U	0.03 U	0.21
Benzo(k)fluoranthene	0.03 U	0.081	0.57	0.03 U	0.03 U	0.23
Benzo(g,h,i)perylene	0.03 U	0.04	0.43	0.03 U	0.03 U	0.17
Benzo(a)pyrene	0.03 U	0.096	0.7	0.03 U	0.03 U	0.31
Chrysene	0.03 U	0.088	0.83	0.03 U	0.03 U	0.38
Dibenzo(a,h)anthracene	0.03 U	0.034 U	0.14	0.03 U	0.03 U	0.058
Fluoranthene	0.061	0.07	1.1	0.03 U	0.03 U	0.75
Fluorene	0.03 U	0.034 U	0.066	0.03 U	0.03 U	0.03 U
Indeno(1,2,3-cd)pyrene	0.03 U	0.04	0.42	0.03 U	0.03 U	0.17
Naphthalene	0.03 U	0.034 U	0.74	3.7	0.03 U	0.03 U
Phenanthrene	0.03 U	0.11	1.9	0.03 U	0.03 U	0.13
Pyrene	0.08	0.13	1.2	0.03 U	0.03 U	0.96
PCBs (mg/kg)						
Aroclor 1016	0.096 U	0.11 U	0.11 U	0.096 U	0.095 U	0.097 U
Aroclor 1221	0.096 U	0.11 U	0.11 U	0.096 U	0.095 U	0.097 U
Aroclor 1232	0.096 U	0.11 U	0.11 U	0.096 U	0.095 U	0.097 U
Aroclor 1242	0.096 U	0.11 U	0.11 U	0.096 U	0.095 U	0.097 U
Aroclor 1248	0.096 U	0.11 U	0.11 U	0.096 U	0.095 U	0.097 U
Aroclor 1254	0.19 U	0.21 U	0.21 U	0.19 U	0.19 U	0.19 U
Aroclor 1260	0.19 U	0.21 U	0.21 U	0.19 U	0.19 U	0.19 U
Priority Pollutant Metals and Total Cyanide (mg/kg)						
Antimony	1.2 UJ	1.3 UJ	2.5 J	1.2 UJ	1.1 UJ	1.2 UJ
Arsenic	7.4	12	23	15	12	9.4
Beryllium	0.6 U	0.91	2.2	0.96	0.82	0.8
Cadmium	0.6 U	0.66 U	4.1	0.61 U	0.57 U	0.61 U
Chromium	13	18	17	21	20	20
Copper	17 J	35 J	84 J	49 J	31 J	30 J
Lead	15	83	360	26	20	21
Mercury	0.034	0.19	1.2	0.033	0.037	0.074
Nickel	20	26	23	46	38	35
Selenium	1.2 U	1.3 U	1.4	1.2 U	1.1 U	1.2 U
Silver	1.2 U	1.3 U	1.3 U	1.2 U	1.1 U	1.2 U
Thallium	1.3	1.8	1.5	1.5	1.4	1.6
Zinc	35 J	91 J	1400 J	52 J	97 J	47 J
Total Cyanide	0.31 U	0.34 U	0.34 U	0.3 U	0.3 U	0.3 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected; the associated value is the sample reporting limit.
(2) J - Indicates an estimated value.

Table 1 (Continued)
Soil Analytical Results
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Compound/Analyte	Sample Location and Depth (feet below ground surface)/Concentration				
	SP20-003 9-10	SP22B-002 7-8	SP25-002 6-7	SP26-002 4-5	SP27-002 4-8
TCL Volatiles (mg/kg)					
Acetone	0.09	0.052	0.35	0.04	0.034 U
Benzene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Bromodichloromethane	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Bromoform	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Bromomethane	0.015 U	0.017 U	0.035 U	0.014 U	0.014 U
2-Butanone	0.015 U	0.017 U	0.17	0.014 U	0.014 U
Carbon Disulfide	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Carbon Tetrachloride	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Chlorobenzene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Chloroethane	0.015 U	0.017 U	0.035 U	0.014 U	0.014 U
Chloroform	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Chloromethane	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Dibromochloromethane	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
1,1-Dichloroethane	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
1,2-Dichloroethane	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
1,1-Dichloroethene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
cis-1,2-Dichloroethene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
trans-1,2-Dichloroethene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
1,2-Dichloropropane	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
cis-1,3-Dichloropropene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
trans-1,3-Dichloropropene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Ethylbenzene	0.0073 U	0.0085 U	0.021	0.0072 U	0.0068 U
2-Hexanone	0.015 U	0.017 U	0.035 U	0.014 U	0.014 U
4-Methyl-2-Pentanone	0.015 U	0.017 U	0.035 U	0.014 U	0.014 U
Methylene Chloride	0.015 U	0.017 U	0.035 U	0.014 U	0.014 U
Styrene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
1,1,2,2-Tetrachloroethane	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Tetrachloroethene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Toluene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
1,1,1-Trichloroethane	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
1,1,2-Trichloroethane	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Trichloroethene	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
Vinyl Chloride	0.0073 U	0.0085 U	0.017 U	0.0072 U	0.0068 U
m,p-Xylene	0.0073 U	0.0085 U	0.023	0.0072 U	0.0068 U
o-Xylene	0.0073 U	0.0085 U	0.031	0.0072 U	0.0068 U

Note:
(1) U - Indicates compound/analyte was analyzed for but not detected; the associated value is the sample reporting limit.

Table 1 (Continued)
Soil Analytical Results
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Compound/Analyte	Sample Location and Depth (feet below ground surface)/Concentration				
	SP20-003 9-10	SP22B-002 7-8	SP25-002 6-7	SP26-002 4-5	SP27-002 4-8
TCL Semivolatiles (mg/kg)					
Bis(2-chloroethoxy)methane	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Bis(2-chloroethyl)ether	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Bis(2-ethylhexyl)phthalate	0.4 U	0.39 U	0.45 U	0.39 U	2.9
4-Bromophenyl phenyl ether	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Butyl benzyl phthalate	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Carbazole	0.4 U	0.39 U	0.45 U	0.39 U	0.5
4-Chloro-3-methylphenol	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
4-Chloroaniline	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
2-Chloronaphthalene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
2-Chlorophenol	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
4-Chlorophenyl phenyl ether	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Dibenzofuran	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
1,2-Dichlorobenzene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
1,3-Dichlorobenzene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
1,4-Dichlorobenzene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
3,3´-Dichlorobenzidine	0.8 U	0.78 U	0.89 U	0.77 U	0.78 U
2,4-Dichlorophenol	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Diethyl phthalate	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Dimethyl phthalate	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Di-n-butyl phthalate	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
2,4-Dimethylphenol	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
4,6-Dinitro-2-methylphenol	1.9 U	1.9 U	2.2 U	1.9 U	1.9 U
2,4-Dinitrophenol	1.9 U	1.9 U	2.2 U	1.9 U	1.9 U
2,4-Dinitrotoluene	0.3 U	0.29 U	0.34 U	0.29 U	0.3 U
2,6-Dinitrotoluene	0.3 U	0.29 U	0.34 U	0.29 U	0.3 U
Di-n-octyl phthalate	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Hexachlorobenzene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Hexachlorobutadiene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Hexachlorocyclopentadiene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Hexachloroethane	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Isophorone	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
2-Methylnaphthalene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
2-Methylphenol	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
4-Methylphenol	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
2-Nitroaniline	1.9 U	1.9 U	2.2 U	1.9 U	1.9 U
3-Nitroaniline	1.9 U	1.9 U	2.2 U	1.9 U	1.9 U
4-Nitroaniline	1.9 U	1.9 U	2.2 U	1.9 U	1.9 U
Nitrobenzene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
2-Nitrophenol	1.9 U	1.9 U	2.2 U	1.9 U	1.9 U
4-Nitrophenol	1.9 U	1.9 U	2.2 U	1.9 U	1.9 U
N-Nitrosodi-n-propylamine	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
N-Nitrosodiphenylamine	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
2, 2'-Oxybis(1-Chloropropane)	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
Pentachlorophenol	1.9 U	1.9 U	2.2 U	1.9 U	1.9 U
Phenol	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
1,2,4-Trichlorobenzene	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U
2,4,5-Trichlorophenol	0.8 U	0.78 U	0.89 U	0.77 U	0.78 U
2,4,6-Trichlorophenol	0.4 U	0.39 U	0.45 U	0.39 U	0.39 U

Note:
(1) U - Indicates compound/analyte was analyzed for but not detected; the associated value is the sample reporting limit.

Table 1 (Continued)
Soil Analytical Results
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Compound/Analyte	Sample Location and Depth (feet below ground surface)/Concentration				
	SP20-003 9-10	SP22B-002 7-8	SP25-002 6-7	SP26-002 4-5	SP27-002 4-8
PAHs (mg/kg)					
Acenaphthene	0.031 U	0.029 U	0.059	0.029 U	0.34
Acenaphthylene	0.031 U	0.029 U	0.095	0.029 U	0.11
Anthracene	0.031 U	0.029 U	0.27	0.029 U	0.6
Benzo(a)anthracene	0.031 U	0.029 U	0.39	0.029 U	4.9
Benzo(b)fluoranthene	0.031 U	0.029 U	0.3	0.029 U	2.8
Benzo(k)fluoranthene	0.031 U	0.029 U	0.24	0.029 U	2
Benzo(g,h,i)perylene	0.031 U	0.029 U	0.087	0.029 U	1.5
Benzo(a)pyrene	0.031 U	0.029 U	0.25	0.029 U	5.2
Chrysene	0.031 U	0.029 U	0.44	0.029 U	4.4
Dibenzo(a,h)anthracene	0.031 U	0.029 U	0.039	0.029 U	0.66
Fluoranthene	0.031 U	0.029 U	0.84	0.03	7.5
Fluorene	0.031 U	0.029 U	0.15	0.029 U	0.35
Indeno(1,2,3-cd)pyrene	0.031 U	0.029 U	0.1	0.029 U	1.5
Naphthalene	0.057	0.043	0.41	0.029 U	0.17
Phenanthrene	0.031 U	0.032	0.65	0.069	1.7
Pyrene	0.031 U	0.036	0.76	0.034	10
PCBs (mg/kg)					
Aroclor 1016	0.097 U	0.094 U	0.11 U	0.094 U	0.091 U
Aroclor 1221	0.097 U	0.094 U	0.11 U	0.094 U	0.091 U
Aroclor 1232	0.097 U	0.094 U	0.11 U	0.094 U	0.091 U
Aroclor 1242	0.097 U	0.094 U	0.11 U	0.094 U	0.29
Aroclor 1248	0.097 U	0.094 U	0.11 U	0.094 U	0.091 U
Aroclor 1254	0.19 U	0.19 U	0.21 U	0.19 U	0.36
Aroclor 1260	0.19 U	0.19 U	0.21 U	0.19 U	0.18 U
Priority Pollutant Metals and Total Cyanide (mg/kg)					
Antimony	1.2 UJ	1.1 UJ	1.3 UJ	1.1 UJ	1.2 J
Arsenic	5.4	7	5.5	7.5	3.9
Beryllium	0.59 U	0.57 U	0.65 U	0.56 U	0.54 U
Cadmium	0.59 U	0.57 U	0.65 U	0.56 U	1.1
Chromium	18	17	15	17	16
Copper	25 J	25 J	29 J	26 J	56 J
Lead	19	23	65	19	96
Mercury	0.038	0.028 U	0.26	0.029 U	0.33
Nickel	23	32	18	27	17
Selenium	1.2 U	1.1 U	1.3 U	1.1 U	1.1 U
Silver	1.2 U	1.1 U	1.3 U	1.1 U	1.1 U
Thallium	1.2 U	1.1 U	1.3 U	1.2	1.1 U
Zinc	48 J	41 J	90 J	41 J	250 J
Total Cyanide	0.31 U	0.3 U	0.8	0.3 U	0.3 U

Notes:
(1) U - Indicates compound/analyte was analyzed for but not detected; the associated value is the sample reporting limit.
(2) J - Indicates an estimated value.

Table 2
Occurrence, Distribution and Selection of Chemicals of Potential Concern
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Subsurface soil
Exposure Point:	Subsurface soil

CAS Number	Chemical	Minimum (1) Concentration	Minimum Qualifier	Maximum (1) Concentration	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Back-ground Value	Screening Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for (2) Contaminant Deletion or Selection
67-64-1	Acetone	0.04		0.35		mg/kg	SP25-002	8 / 11	0.034 - 0.059						YES	FD
71-43-2	Benzene	0.03	J	0.03	J	mg/kg	SP16-002	1 / 11	0.0068 - 0.019						YES	FD
75-27-4	Bromodichloromethane					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
75-25-2	Bromoform					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
74-83-9	Bromomethane					mg/kg		0 / 11	0.014 - 0.038						NO	ND
78-93-3	2-Butanone	0.034		0.17		mg/kg	SP25-002	2 / 11	0.014 - 0.038						YES	FD
75-15-0	Carbon Disulfide	0.03	J	0.03	J	mg/kg	SP16-002	1 / 11	0.0068 - 0.019						YES	FD
56-23-5	Carbon Tetrachloride					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
108-90-7	Chlorobenzene					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
75-00-3	Chloroethane					mg/kg		0 / 11	0.014 - 0.038						NO	ND
67-66-3	Chloroform					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
74-87-3	Chloromethane					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
124-48-1	Dibromochloromethane					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
75-34-3	1,1-Dichloroethane					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
107-06-2	1,2-Dichloroethane					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
75-35-4	1,1-Dichloroethene					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
156-59-2	cis-1,2-Dichloroethene					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
156-60-5	trans-1,2-Dichloroethene					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
78-87-5	1,2-Dichloropropane					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
1006-01-5	cis-1,3-Dichloropropene					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
10061-02-6	trans-1,3-Dichloropropene					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
100-41-4	Ethylbenzene	0.021		4.7		mg/kg	SP16-002	2 / 11	0.0068 - 0.019						YES	FD
591-78-6	2-Hexanone					mg/kg		0 / 11	0.014 - 0.038						NO	ND
75-09-2	4-Methyl-2-Pentanone					mg/kg		0 / 11	0.014 - 0.038						NO	ND
75-09-2	Methylene Chloride					mg/kg		0 / 11	0.014 - 0.038						NO	ND

Notes:

(1) Minimum/maximum detected concentration.

(2) Rationale Codes — Selection Reason: Frequent Detection (FD); Deletion Reason: Nondetect Data (ND)

Definitions: ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
COPC = Chemical of Potential Concern
J = Estimated value

Table 2 (Continued)
Occurrence, Distribution and Selection of Chemicals of Potential Concern
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Subsurface soil
Exposure Point:	Subsurface soil

CAS Number	Chemical	Minimum (1) Concentration	Minimum Qualifier	Maximum (1) Concentration	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Back-ground Value	Screening Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for (2) Contaminant Deletion or Selection
100-42-5	Styrene	0.036	J	0.036	J	mg/kg	SP16-002	1 / 11	0.0068 - 0.019						YES	FD
79-34-5	1,1,2,2-Tetrachloroethane					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
127-18-4	Tetrachloroethene					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
108-88-3	Toluene	0.019	J	0.019	J	mg/kg	SP16-002	1 / 11	0.0068 - 0.019						YES	FD
71-55-6	1,1,1-Trichloroethane					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
79-00-5	1,1,2-Trichloroethane					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
79-01-6	Trichloroethene					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
75-01-4	Vinyl Chloride					mg/kg		0 / 11	0.0068 - 0.019						NO	ND
106-42-3 108-38-3	m,p-Xylene	0.023		0.12	J	mg/kg	SP16-002	2 / 11	0.0068 - 0.019						YES	FD
95-47-6	o-Xylene	0.031		2		mg/kg	SP16-002	2 / 11	0.0068 - 0.019						YES	FD
111-91-1	Bis(2-chloroethoxy)methane					mg/kg		0 / 11	0.39 - 0.45						NO	ND
111-44-4	Bis(2-chloroethyl)ether					mg/kg		0 / 11	0.39 - 0.45						NO	ND
117-81-7	Bis(2-ethylhexyl)phthalate	2.9		2.9		mg/kg	SP27-002	1 / 11	0.39 - 0.45						YES	FD
101-55-3	4-Bromophenyl phenyl ether					mg/kg		0 / 11	0.39 - 0.45						NO	ND
85-68-7	Butyl benzyl phthalate					mg/kg		0 / 11	0.39 - 0.45						NO	ND
86-74-8	Carbazole	0.5		0.5		mg/kg	SP27-002	1 / 11	0.39 - 0.45						YES	FD
106-47-8	4-Chloro-3-methylphenol					mg/kg		0 / 11	0.39 - 0.45						NO	ND
35421-08-0	4-Chloroaniline					mg/kg		0 / 11	0.39 - 0.45						NO	ND
91-58-7	2-Chloronaphthalene					mg/kg		0 / 11	0.39 - 0.45						NO	ND
95-57-8	2-Chlorophenol					mg/kg		0 / 11	0.39 - 0.45						NO	ND
7005-72-3	4-Chlorophenyl phenyl ether					mg/kg		0 / 11	0.39 - 0.45						NO	ND

Notes:

(1) Minimum/maximum detected concentration.

(2) Rationale Codes — Selection Reason: Frequent Detection (FD); Deletion Reason: Nondetect Data (ND)

Definitions: ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
COPC = Chemical of Potential Concern
J = Estimated value

Table 2 (Continued)
Occurrence, Distribution and Selection of Chemicals of Potential Concern
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Subsurface soil
Exposure Point:	Subsurface soil

CAS Number	Chemical	Minimum (1) Concentration	Minimum Qualifier	Maximum (1) Concentration	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Back-ground Value	Screening Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for (2) Contaminant Deletion or Selection
132-64-9	Dibenzofuran	0.67		0.67		mg/kg	SP16-001	1 / 11	0.39 - 0.45						YES	FD
95-50-1	1,2-Dichlorobenzene					mg/kg		0 / 11	0.39 - 0.45						NO	ND
541-73-1	1,3-Dichlorobenzene					mg/kg		0 / 11	0.39 - 0.45						NO	ND
106-46-7	1,4-Dichlorobenzene					mg/kg		0 / 11	0.39 - 0.45						NO	ND
91-94-1	3,3´-Dichlorobenzidine					mg/kg		0 / 11	0.77 - 0.9						NO	ND
120-83-2	2,4-Dichlorophenol					mg/kg		0 / 11	0.39 - 0.45						NO	ND
84-66-2	Diethyl phthalate					mg/kg		0 / 11	0.39 - 0.45						NO	ND
84-74-2	Dimethyl phthalate					mg/kg		0 / 11	0.39 - 0.45						NO	ND
105-67-9	Di-n-butyl phthalate					mg/kg		0 / 11	0.39 - 0.45						NO	ND
131-11-3	2,4-Dimethylphenol					mg/kg		0 / 11	0.39 - 0.45						NO	ND
534-52-1	4,6-Dinitro-2-methylphenol					mg/kg		0 / 11	1.9 - 2.2						NO	ND
51-28-5	2,4-Dinitrophenol					mg/kg		0 / 11	1.9 - 2.2						NO	ND
121-14-2	2,4-Dinitrotoluene					mg/kg		0 / 11	0.29 - 0.34						NO	ND
606-20-2	2,6-Dinitrotoluene					mg/kg		0 / 11	0.29 - 0.34						NO	ND
117-84-0	Di-n-octyl phthalate					mg/kg		0 / 11	0.39 - 0.45						NO	ND
118-74-1	Hexachlorobenzene					mg/kg		0 / 11	0.39 - 0.45						NO	ND
87-68-3	Hexachlorobutadiene					mg/kg		0 / 11	0.39 - 0.45						NO	ND
77-47-4	Hexachlorocyclopentadiene					mg/kg		0 / 11	0.39 - 0.45						NO	ND
67-72-1	Hexachloroethane					mg/kg		0 / 11	0.39 - 0.45						NO	ND
78-59-1	Isophorone					mg/kg		0 / 11	0.39 - 0.45						NO	ND
91-57-6	2-Methylnaphthalene	2.3		2.3		mg/kg	SP16-001	1 / 11	0.39 - 0.45						YES	FD
95-48-7	2-Methylphenol					mg/kg		0 / 11	0.39 - 0.45						NO	ND
61379-65-5	4-Methylphenol					mg/kg		0 / 11	0.39 - 0.45						NO	ND
88-74-4	2-Nitroaniline					mg/kg		0 / 11	1.9 - 2.2						NO	ND
99-09-2	3-Nitroaniline					mg/kg		0 / 11	1.9 - 2.2						NO	ND

Notes:

(1) Minimum/maximum detected concentration.

(2) Rationale Codes — Selection Reason: Frequent Detection (FD); Deletion Reason: Nondetect Data (ND)

Definitions: ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
COPC = Chemical of Potential Concern

Table 2 (Continued)
Occurrence, Distribution and Selection of Chemicals of Potential Concern
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Subsurface soil
Exposure Point:	Subsurface soil

CAS Number	Chemical	Minimum (1) Concentration	Minimum Qualifier	Maximum (1) Concentration	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Back-ground Value	Screening Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for (2) Contaminant Deletion or Selection
100-01-6	4-Nitroaniline					mg/kg		0 / 11	1.9 - 2.2						NO	ND
98-95-3	Nitrobenzene					mg/kg		0 / 11	0.39 - 0.45						NO	ND
88-75-5	2-Nitrophenol					mg/kg		0 / 11	1.9 - 2.2						NO	ND
100-02-7	4-Nitrophenol					mg/kg		0 / 11	1.9 - 2.2						NO	ND
621-64-7	N-Nitrosodi-n-propylamine					mg/kg		0 / 11	0.39 - 0.45						NO	ND
86-30-6	N-Nitrosodiphenylamine					mg/kg		0 / 11	0.39 - 0.45						NO	ND
108-60-1	2, 2'-Oxybis(1-Chloropropane)					mg/kg		0 / 11	0.39 - 0.45						NO	ND
108-60-1	Pentachlorophenol					mg/kg		0 / 11	1.9 - 2.2						NO	ND
87-86-5	Phenol					mg/kg		0 / 11	0.39 - 0.45						NO	ND
120-82-1	1,2,4-Trichlorobenzene					mg/kg		0 / 11	0.39 - 0.45						NO	ND
95-95-4	2,4,5-Trichlorophenol					mg/kg		0 / 11	0.77 - 0.9						NO	ND
88-06-2	2,4,6-Trichlorophenol					mg/kg		0 / 11	0.39 - 0.45						NO	ND
83-32-9	Acenaphthene	0.044		0.34		mg/kg	SP27-002	3 / 11	0.029 - 0.034						YES	FD
208-96-8	Acenaphthylene	0.048		0.14		mg/kg	SP16-001	4 / 11	0.029 - 0.034						YES	FD
120-12-7	Anthracene	0.078		2		mg/kg	SP16-001	4 / 11	0.029 - 0.034						YES	FD
56-55-3	Benzo(a)anthracene	0.082		4.9		mg/kg	SP27-002	5 / 11	0.029 - 0.031						YES	FD
207-08-9	Benzo(b)fluoranthene	0.1		2.8		mg/kg	SP27-002	5 / 11	0.029 - 0.031						YES	FD
50-32-8	Benzo(k)fluoranthene	0.081		2		mg/kg	SP27-002	5 / 11	0.029 - 0.031						YES	FD
191-24-2	Benzo(g,h,i)perylene	0.04		1.5		mg/kg	SP27-002	5 / 11	0.029 - 0.031						YES	FD
205-99-2	Benzo(a)pyrene	0.096		5.2		mg/kg	SP27-002	5 / 11	0.029 - 0.031						YES	FD
218-01-9	Chrysene	0.088		4.4		mg/kg	SP27-002	5 / 11	0.029 - 0.031						YES	FD
53-70-3	Dibenzo(a,h)anthracene	0.039		0.66		mg/kg	SP27-002	4 / 11	0.029 - 0.034						YES	FD
206-44-0	Fluoranthene	0.03		7.5		mg/kg	SP27-002	7 / 11	0.029 - 0.031						YES	FD

Notes:

(1) Minimum/maximum detected concentration.

(2) Rationale Codes — Selection Reason: Frequent Detection (FD); Deletion Reason: Nondetect Data (ND)

Definitions: ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
COPC = Chemical of Potential Concern

Table 2 (Continued)
Occurrence, Distribution and Selection of Chemicals of Potential Concern
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Subsurface soil
Exposure Point:	Subsurface soil

CAS Number	Chemical	Minimum (1) Concentration	Minimum Qualifier	Maximum (1) Concentration	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Back-ground Value (2)	Screening Toxicity Value	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for (3) Contaminant Deletion or Selection
86-73-7	Fluorene	0.066		0.35		mg/kg	SP27-002	3 / 11	0.029 - 0.034						YES	FD
193-39-5	Indeno(1,2,3-cd)pyrene	0.04		1.5		mg/kg	SP27-002	5 / 11	0.029 - 0.031						YES	FD
91-20-3	Naphthalene	0.043		3.7		mg/kg	SP16-002	6 / 11	0.029 - 0.034						YES	FD
85-01-8	Phenanthrene	0.032		1.9		mg/kg	SP16-001	7 / 11	0.03 - 0.031						YES	FD
129-00-0	Pyrene	0.034		10		mg/kg	SP27-002	8 / 11	0.03 - 0.031						YES	FD
12674-11-2	Aroclor 1016					mg/kg		0 / 11	0.091 - 0.11						NO	ND
11104-28-2	Aroclor 1221					mg/kg		0 / 11	0.091 - 0.11						NO	ND
11141-16-5	Aroclor 1232					mg/kg		0 / 11	0.091 - 0.11						NO	ND
53469-21-9	Aroclor 1242	0.29		0.29		mg/kg	SP27-002	1 / 11	0.094 - 0.11						YES	FD
12672-29-6	Aroclor 1248					mg/kg		0 / 11	0.091 - 0.11						NO	ND
11097-69-1	Aroclor 1254	0.36		0.36		mg/kg	SP27-002	1 / 11	0.19 - 0.21						YES	FD
11096-82-5	Aroclor 1260					mg/kg		0 / 11	0.18 - 0.21						NO	ND
7440-36-0	Antimony	1.2	J	2.5	J	mg/kg	SP16-001	2 / 11	1.1 - 1.3		4.0				NO	BSL
7440-38-2	Arsenic	3.9		23		mg/kg	SP16-001	11 / 11	0.54 - 0.65		13.0				YES	FD/ASL
7440-41-7	Beryllium	0.8		2.2		mg/kg	SP16-001	5 / 11	0.54 - 0.65		0.59				YES	FD/ASL
7440-43-9	Cadmium	1.1		4.1		mg/kg	SP16-001	2 / 11	0.56 - 0.66		0.6				YES	FD/ASL
7440-47-3	Chromium	13		21		mg/kg	SP16-002	11 / 11	1 - 1.4		16.2				YES	FD/ASL
7440-50-8	Copper	17	J	84	J	mg/kg	SP16-001	11 / 11	1 - 1.4		19.6				YES	FD/ASL
7439-92-1	Lead	15		360		mg/kg	SP16-001	11 / 11	0.52 - 0.56		36.0				YES	FD/ASL
7439-97-6	Mercury	0.033		1.2		mg/kg	SP16-001	9 / 11	0.028 - 0.029		0.06				YES	FD/ASL
7440-02-0	Nickel	17		46		mg/kg	SP16-002	11 / 11	1 - 7.3		18.0				YES	FD/ASL
7782-49-2	Selenium	1.4		1.4		mg/kg	SP16-001	1 / 11	1.1 - 1.3		0.48				YES	FD/ASL
7440-22-4	Silver					mg/kg		0 / 11	1.1 - 1.3		0.55				NO	ND
7440-28-0	Thallium	1.2		1.8		mg/kg	SP14B-001	7 / 11	1.1 - 1.3		0.32				YES	FD/ASL
7440-66-6	Zinc	35	J	1,400	J	mg/kg	SP16-001	11 / 11	5.0 - 37		95.0				YES	FD/ASL
57-12-5	Total Cyanide	0.8		0.8		mg/kg	SP25-002	1 / 11	0.3 - 0.34		0.51				YES	FD/ASL

Notes:

(1) Minimum/maximum detected concentration.

(2) Metropolitan Statistical Areas (MSA) background values for metals were obtained from Illinois Tiered Approach to Corrective Action Objectives (TACO) (35 IAC 742 2002).

(3) Rationale Codes
Selection Reason: Frequent Detection (FD)
Above Screening Level (ASL)
Deletion Reason: Below Screening Level (BSL)
Nondetect Data (ND)

Definitions: ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
COPC = Chemical of Potential Concern
J = Estimated value

Table 3
Medium-Specific Exposure Point Concentration Summary
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Subsurface Soil
Exposure Point:	Subsurface Soil

Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL of the Data	Maximum Detected Concentration	Maximum Qualifier	EPC Units	Reasonable Maximum Exposure			Central Tendency		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale	Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Acetone	mg/kg	NA	NA	0.35		mg/kg	0.35	Max	RA Area Max	0.35	Max	RA Area Max
Benzene	mg/kg	NA	NA	0.03	J	mg/kg	0.03	Max	RA Area Max	0.03	Max	RA Area Max
2-Butanone	mg/kg	NA	NA	0.17		mg/kg	0.17	Max	RA Area Max	0.17	Max	RA Area Max
Carbon Disulfide	mg/kg	NA	NA	0.03	J	mg/kg	0.03	Max	RA Area Max	0.03	Max	RA Area Max
Ethylbenzene	mg/kg	NA	NA	4.7		mg/kg	4.7	Max	RA Area Max	4.7	Max	RA Area Max
Styrene	mg/kg	NA	NA	0.036	J	mg/kg	0.036	Max	RA Area Max	0.036	Max	RA Area Max
Toluene	mg/kg	NA	NA	0.019	J	mg/kg	0.019	Max	RA Area Max	0.019	Max	RA Area Max
m,p-Xylene	mg/kg	NA	NA	0.12	J	mg/kg	0.12	Max	RA Area Max	0.12	Max	RA Area Max
o-Xylene	mg/kg	NA	NA	2		mg/kg	2	Max	RA Area Max	2	Max	RA Area Max
Bis(2-ethylhexyl)phthalate	mg/kg	NA	NA	2.9		mg/kg	2.9	Max	RA Area Max	2.9	Max	RA Area Max
Carbazole	mg/kg	NA	NA	0.5		mg/kg	0.5	Max	RA Area Max	0.5	Max	RA Area Max
Dibenzofuran	mg/kg	NA	NA	0.67		mg/kg	0.67	Max	RA Area Max	0.67	Max	RA Area Max
2-Methylnaphthalene	mg/kg	NA	NA	2.3		mg/kg	2.3	Max	RA Area Max	2.3	Max	RA Area Max
Acenaphthene	mg/kg	NA	NA	0.34		mg/kg	0.34	Max	RA Area Max	0.34	Max	RA Area Max
Acenaphthylene	mg/kg	NA	NA	0.14		mg/kg	0.14	Max	RA Area Max	0.14	Max	RA Area Max
Anthracene	mg/kg	NA	NA	2		mg/kg	2	Max	RA Area Max	2	Max	RA Area Max
Benzo(a)anthracene	mg/kg	NA	NA	4.9		mg/kg	4.9	Max	RA Area Max	4.9	Max	RA Area Max
Benzo(b)fluoranthene	mg/kg	NA	NA	2.8		mg/kg	2.8	Max	RA Area Max	2.8	Max	RA Area Max
Benzo(k)fluoranthene	mg/kg	NA	NA	2		mg/kg	2	Max	RA Area Max	2	Max	RA Area Max
Benzo(g,h,i)perylene	mg/kg	NA	NA	1.5		mg/kg	1.5	Max	RA Area Max	1.5	Max	RA Area Max
Benzo(a)pyrene	mg/kg	NA	NA	5.2		mg/kg	5.2	Max	RA Area Max	5.2	Max	RA Area Max
Chrysene	mg/kg	NA	NA	4.4		mg/kg	4.4	Max	RA Area Max	4.4	Max	RA Area Max
Dibenzo(a,h)anthracene	mg/kg	NA	NA	0.66		mg/kg	0.66	Max	RA Area Max	0.66	Max	RA Area Max
Fluoranthene	mg/kg	NA	NA	7.5		mg/kg	7.5	Max	RA Area Max	7.5	Max	RA Area Max
Fluorene	mg/kg	NA	NA	0.35		mg/kg	0.35	Max	RA Area Max	0.35	Max	RA Area Max
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	1.5		mg/kg	1.5	Max	RA Area Max	1.5	Max	RA Area Max
Naphthalene	mg/kg	NA	NA	3.7		mg/kg	3.7	Max	RA Area Max	3.7	Max	RA Area Max
Phenanthrene	mg/kg	NA	NA	1.9		mg/kg	1.9	Max	RA Area Max	1.9	Max	RA Area Max
Pyrene	mg/kg	NA	NA	10		mg/kg	10	Max	RA Area Max	10	Max	RA Area Max
Aroclor 1242	mg/kg	NA	NA	0.29		mg/kg	0.29	Max	RA Area Max	0.29	Max	RA Area Max
Aroclor 1254	mg/kg	NA	NA	0.36		mg/kg	0.36	Max	RA Area Max	0.36	Max	RA Area Max
Arsenic	mg/kg	NA	NA	23		mg/kg	23	Max	RA Area Max	23	Max	RA Area Max
Beryllium	mg/kg	NA	NA	2.2		mg/kg	2.2	Max	RA Area Max	2.2	Max	RA Area Max
Cadmium	mg/kg	NA	NA	4.1		mg/kg	4.1	Max	RA Area Max	4.1	Max	RA Area Max
Chromium	mg/kg	NA	NA	21		mg/kg	21	Max	RA Area Max	21	Max	RA Area Max
Copper	mg/kg	NA	NA	84	J	mg/kg	84	Max	RA Area Max	84	Max	RA Area Max
Lead	mg/kg	NA	NA	360		mg/kg	360	Max	RA Area Max	360	Max	RA Area Max
Mercury	mg/kg	NA	NA	1.2		mg/kg	1.2	Max	RA Area Max	1.2	Max	RA Area Max
Nickel	mg/kg	NA	NA	46		mg/kg	46	Max	RA Area Max	46	Max	RA Area Max
Selenium	mg/kg	NA	NA	1.4		mg/kg	1.4	Max	RA Area Max	1.4	Max	RA Area Max
Thallium	mg/kg	NA	NA	1.8		mg/kg	1.8	Max	RA Area Max	1.8	Max	RA Area Max
Zinc	mg/kg	NA	NA	1,400	J	mg/kg	1,400	Max	RA Area Max	1,400	Max	RA Area Max
Total Cyanide	mg/kg	NA	NA	0.8		mg/kg	0.8	Max	RA Area Max	0.8	Max	RA Area Max

Notes:

(1) UCL - Upper Confidence Limit.

(2) EPC - Exposure Point Concentration.

(3) NA - Not Applicable; Illinois EPA requires that maximum concentrations be used for Utility Worker and Construction Worker scenarios.

(4) J - Estimated value.

Table 4
Vapor Concentration in Soil
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Equation:
Cvapor = [(Csoil x þb x H') x CF]/ [Pa x H' + M + (þb x Kd)]

Where:
Cvapor = Chemical vapor concentration in soil at the source (mg/m³)
H' = Henry's Law Constant (dimensionless) at 25°C, chemical-specific
Csoil = Chemical concentration in soil (mg/kg)
þb = Soil bulk density (g/cm³)
Kd = Soil-water partition coefficient (cm³/g) = Koc x foc
Koc = Organic carbon partitioning coefficient (cm³/g)
foc = Fraction organic carbon (unitless)
Pa = Air-filled porosity (cm³/cm³) = Pt-M
M = Soil moisture content (cm³/cm³)
Pt = Total porosity (cm³/cm³)
CF = Conversion factor (mg/kg x g/cm³)

Variable Values:
þb = 1.5 g/cm³ (IAC 2002)
Pa = 0.13 cm³/cm³ (Pt-M)
M = 0.3 cm³/cm³ (default sub-surface value, 35 IAC 742, 2002)
Pt = 0.43 cm³/cm³ (default sub-surface value, 35 IAC 742, 2002)
foc = 0.002 unitless (default sub-surface value, 35 IAC 742, 2002)
CF= 1,000 mg/kg x g/cm³

Chemical of Potential Concern	Csoil (mg/kg)	H' (unitless)	Koc (cm³/g)	Kd (cm³/g)	Cvapor (mg/m³)
Acetone	0.35	1.59E-03	5.75E-01	1.15E-03	2.76E+00
Benzene	0.03	2.28E-01	5.89E+01	1.18E-01	2.03E+01
2-Butanone	0.17	1.10E-03	4.50E+00	9.00E-03	8.94E-01
Carbon Disulfide	0.03	1.24E+00	4.57E+01	9.14E-02	9.33E+01
Ethylbenzene	4.7	3.23E-01	3.63E+02	7.26E-01	1.59E+03
Styrene	0.036	1.13E-01	7.76E+02	1.55E+00	2.31E+00
Toluene	0.019	2.72E-01	1.82E+02	3.64E-01	8.80E+00
m,p-Xylene	0.12	3.14E-01	3.89E+02	7.78E-01	3.75E+01
o-Xylene	2	2.13E-01	3.63E+02	7.26E-01	4.51E+02
Naphthalene	3.7	1.98E-02	2.00E+03	4.00E+00	1.74E+01

Note:
1) H' and K_{OC} values from TACO (IAC 2002) except 2-Butanone (methyl ethyl ketone) from USEPA Region 9 Physical-Chemical Data for Volatile Organic Compounds. Website address: http://www.epa.gov/Region9/waste/sfund/prg /files/04physchem.pdf (USEPA 2004c).

Table 5
Vapor Emission Rate to Surface
Outdoor Scenario
Post-Remediation Utility Worker
Hawthorne Regulator Station

Equation:

ER = [A x (Cvapor - Csurface) x Deff x CF]/L

Where:

ER = Emission rate to the surface (g/sec)
A = Cross-sectional area available for diffusion (m^2)
Cvapor = Chemical vapor concentration in soil at the source (mg/m^3)
Csurface = Chemical vapor concentration in soil at the surface (mg/m^3)
Deff = Effective diffusion coefficient (cm^2/sec)
Where:
Deff = Dair x (Pa^3.33/Pt^2)
Pa = Air-filled porosity (cm^3/cm^3) = Pt-M
Dair = Diffusion coefficient in air (cm^2/sec)
Pt = Total porosity (cm^3/cm^3)
M = Soil moisture content (cm^3/cm^3)
L = Length of flow (m)
CF = Conversion factor (m^2/cm^2 x g/mg)

Variable Values:

A = 3.35 m^2 (assumed value = 6 ft x 6 ft excavation area for utility worker)
Csurface = 0 mg/m^3 (assumed value)
L = 2.438 m (depth to source = 8 feet; depth of sample with maximum VOC concentrations)
Pa = 0.13 cm^3/cm^3 = Pt-M
Pt = 0.43 cm^3/cm^3 (default sub-surface value, 35 IAC 742, 2002)
M = 0.3 cm^3/cm^3 (default sub-surface value, 35 IAC 742, 2002)
CF = 1E-07 m^3/cm^3 X g/mg

Chemical of Potential Concern	Cvapor (mg/m^3)	Dair (cm^2/sec)	Deff (cm^2/sec)	ER (g/sec)
Acetone	2.76E+00	1.24E-01	7.51E-04	2.85E-10
Benzene	2.03E+01	8.80E-02	5.33E-04	1.48E-09
2-Butanone	8.94E-01	9.00E-02	5.45E-04	6.70E-11
Carbon Disulfide	9.33E+01	1.04E-01	6.30E-04	8.08E-09
Ethylbenzene	1.59E+03	7.50E-02	4.55E-04	9.94E-08
Styrene	2.31E+00	7.10E-02	4.30E-04	1.37E-10
Toluene	8.80E+00	8.70E-02	5.27E-04	6.37E-10
m,p-Xylene	3.75E+01	7.69E-02	4.66E-04	2.40E-09
o-Xylene	4.51E+02	8.70E-02	5.27E-04	3.27E-08
Naphthalene	1.74E+01	5.90E-02	3.58E-04	8.57E-10

Notes:
1) Cvapor values from Table 4.
2) Dair values from TACO (35 IAC 742, 2002) except 2-Butanone(methyl ethyl ketone) from USEPA Region 9 Physical-Chemical Data for Volatile Organic Compounds. Website address: http://www.epa.gov/Region9/waste/sfund/prg/files/04physchem.pdf (USEPA 2004c).

Table 6
Vapor Concentration in Outdoor Air
Post-Remediation Utility Worker
Hawthorne Regulator Station

Equation:

Cb = (ER x CF) / (W x Um x Hb)

Where:

Cb = Vapor concentration in box (mg/m³)
ER = Emission rate (g/sec)
CF = Conversion factor (g to mg)
W = Width of box (m)
Hb = Mixing height in box (m)
Um = Wind speed (m/sec)
Where :

$Um = 0.22 \times U_{10} \times \ln(2.5 \times Hb)$

U_{10} is the wind speed at 10 m elevation (m/sec)

Variable Values:

CF = 1,000 g to mg
W = 1.83 m (6 ft., assumes that utility worker is standing at edge of excavation)
Hb = 2 m (assumed value)
U_{10}= 10.4 m/sec (USEPA 1996, value for Chicago, Illinois MSA)
Um = 3.7 m/sec

Chemical of Potential Concern	ER (g/sec)	Cb (mg/m³)
Acetone	2.85E-10	2.12E-08
Benzene	1.48E-09	1.10E-07
2-Butanone	6.70E-11	4.97E-09
Carbon Disulfide	8.08E-09	5.99E-07
Ethylbenzene	9.94E-08	7.37E-06
Styrene	1.37E-10	1.01E-08
Toluene	6.37E-10	4.73E-08
m,p-Xylene	2.40E-09	1.78E-07
o-Xylene	3.27E-08	2.42E-06
Naphthalene	8.57E-10	6.36E-08

Note:
1) ER values from Table 5.

Table 7
Vapor Emission Rate to Surface
Outdoor Scenario
Post-Remediation Construction Worker
Hawthorne Regulator Station

Equation:

ER = [A x (Cvapor - Csurface) x Deff x CF]/L

Where:

ER = Emission rate to the surface (g/sec)
A = Cross-sectional area available for diffusion (m^2)
Cvapor = Chemical vapor concentration in soil at the source (mg/m^3)
Csurface = Chemical vapor concentration in soil at the surface (mg/m^3)
Deff = Effective diffusion coefficient (cm^2/sec)
Where:
Deff = Dair x (Pa^3.33/Pt^2)
Pa = Air-filled porosity (cm^3/cm^3) = Pt-M
Dair = Diffusion coefficient in air (cm^2/sec)
Pt = Total porosity (cm^3/cm^3)
M = Soil moisture content (cm^3/cm^3)
L = Length of flow (m)
CF = Conversion factor (m^2/cm^2 x g/mg)

Variable Values:

A = 1,141.50 m^2 (site specific = 12,287 ft^2 excavation area for construction work)
Csurface = 0 mg/m^3 (assumed value)
L = 2.438 m (depth to source = 8 feet; depth of sample with maximum VOC concentrations)
Pa = 0.13 cm^3/cm^3 = Pt-M
Pt = 0.43 cm^3/cm^3 (default sub-surface value, 35 IAC 742, 2002)
M = 0.3 cm^3/cm^3 (default sub-surface value, 35 IAC 742, 2002)
CF = 1E-07 m^2/cm^2 x g/mg

Chemical of Potential Concern	Cvapor (mg/m^3)	Dair (cm^2/sec)	Deff (cm^2/sec)	ER (g/sec)
Acetone	2.76E+00	1.24E-01	7.51E-04	9.73E-08
Benzene	2.03E+01	8.80E-02	5.33E-04	5.06E-07
2-Butanone	8.94E-01	9.00E-02	5.45E-04	2.28E-08
Carbon Disulfide	9.33E+01	1.04E-01	6.30E-04	2.75E-06
Ethylbenzene	1.59E+03	7.50E-02	4.55E-04	3.39E-05
Styrene	2.31E+00	7.10E-02	4.30E-04	4.65E-08
Toluene	8.80E+00	8.70E-02	5.27E-04	2.17E-07
m,p-Xylene	3.75E+01	7.69E-02	4.66E-04	8.18E-07
o-Xylene	4.51E+02	8.70E-02	5.27E-04	1.11E-05
Naphthalene	1.74E+01	5.90E-02	3.58E-04	2.92E-07

Notes:
1) Cvapor values from Table 4.
2) Dair values from TACO (IAC 2002) except 2-Butanone(methyl ethyl ketone) from USEPA Region 9 Physical-Chemical Data for Volatile Organic Compounds. Website address: http://www.epa.gov/Region9/waste/sfund/prg /files/04physchem.pdf (USEPA 2004c).

Table 8
Vapor Concentration in Outdoor Air
Post-Remediation Construction Worker
Hawthorne Regulator Station

Equation:

Cb = (ER x CF) / (W x Um x Hb)

Where:

Cb = Vapor concentration in box (mg/m^3)
ER = Emission rate (g/sec)
CF = Conversion factor (g to mg)
W = Width of box (m)
Hb = Mixing height in box (m)
Um = Wind speed (m/sec)
Where :

$Um = 0.22 \times U_{10} \times \ln(2.5 \times Hb)$

U_{10} is the wind speed at 10 m elevation (m/sec)

Variable Values:

CF = 1,000 g to mg
W = 33.79 m (110.85 ft., assumes that construction worker is standing at edge of excavation)
Hb = 2 m (assumed value)
U_{10}= 10.4 m/sec (USEPA 1996, value for Chicago, Illinois MSA)
Um = 3.7 m/sec

Chemical of Potential Concern	ER (g/sec)	Cb (mg/m^3)
Acetone	9.73E-08	3.91E-07
Benzene	5.06E-07	2.03E-06
2-Butanone	2.28E-08	9.18E-08
Carbon Disulfide	2.75E-06	1.11E-05
Ethylbenzene	3.39E-05	1.36E-04
Styrene	4.65E-08	1.87E-07
Toluene	2.17E-07	8.73E-07
m,p-Xylene	8.18E-07	3.29E-06
o-Xylene	1.11E-05	4.47E-05
Naphthalene	2.92E-07	1.17E-06

Notes:

1) The Box Model assumes that the excavation area is a square; the total area is calculated then the square root is taken to get the effective length of the box. This effective length is used as the width of the box.

2) ER values from Table 7.

Table 9a
Non-Cancer Toxicity Data -- Oral/Dermal
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Absorption Efficiency (%) (1)	Adjusted Dermal RfD (2)	Units	Target Organ or System	Sources of RfD/ Absorption/ Target Organ	Dates of RfD: (3) Target Organ (MM/DD/YYYY)
Acetone	Subchronic	1.0E+00	mg/kg-day	83	1.0E+00	mg/kg-day	increased liver/kidney wt, nephrotoxicity	HEAST/ATSDR 1992/IRIS, TACO	July 1997
Benzene	Chronic	4.0E-03	mg/kg-day	90	4.0E-03	mg/kg-day	NA	IRIS/ATSDR 1995/ IRIS, TACO	04/07/2005
2-Butanone	Subchronic	2.0E+00	mg/kg-day	80	2.0E+00	mg/kg-day	decreased fetal birth rate	HEAST/ATSDR 1992/IRIS, TACO	July 1997
Carbon Disulfide	Chronic/ Subchronic	1.0E-01	mg/kg-day	63	1.0E-01	mg/kg-day	reproductive system, fetal toxicity, malformations	IRIS, HEAST/ATSDR 1992/IRIS, TACO	04/07/2005, July 1997
Ethylbenzene	Chronic	1.0E-01	mg/kg-day	92	1.0E-01	mg/kg-day	liver, kidney toxicity	IRIS/ATSDR 1997/IRIS, TACO	04/07/2005
Styrene	Chronic	2.0E-01	mg/kg-day	NA	2.0E-01	mg/kg-day	red blood cell and liver effects	IRIS/ATSDR 1992/IRIS, TACO	04/07/2005
Toluene	Subchronic	2.0E+00	mg/kg-day	100	2.0E+00	mg/kg-day	liver, kidneys	HEAST/ATSDR 1997/IRIS, TACO	July 1997
m,p-Xylene	Chronic	2.0E-01	mg/kg-day	92	2.0E-01	mg/kg-day	CNS, hyperactivity, decreased body weight, increased mortality	IRIS/ATSDR 1995/IRIS, TACO	04/07/2005
o-Xylene	Chronic	2.0E-01	mg/kg-day	92	2.0E-01	mg/kg-day	CNS, hyperactivity, decreased body weight, increased mortality	IRIS/ATSDR 1995/IRIS, TACO	04/07/2005
Bis(2-ethylhexyl)phthalate	Chronic	2.00E-02	mg/kg-day	NA	2.0E-02	mg/kg-day	increased liver weight and tumors	IRIS/NA/IRIS, TACO	04/07/2005
Carbazole	NA	NA	mg/kg-day	70	NA	mg/kg-day	NA	IRIS/USEPA 1986/IRIS, TACO	04/07/2005
Dibenzofuran	NA	NA	mg/kg-day	NA	NA	mg/kg-day	NA	IRIS/NA/IRIS, TACO	04/07/2005
2-Methylnaphthalene	Chronic	4.0E-03	mg/kg-day	80	4.0E-03	mg/kg-day	NA	IRIS/ATSDR 1995/IRIS, TACO	04/07/2005
Acenaphthene	Subchronic	6.0E-01	mg/kg-day	NA	6.0E-01	mg/kg-day	liver, hepatotoxicity	HEAST/NA/IRIS, TACO	July 1997
Acenaphthylene	NA	NA	mg/kg-day	NA	NA	mg/kg-day	NA	IRIS/NA/IRIS, TACO	04/07/2005
Anthracene	Subchronic	3.0E+00	mg/kg-day	71	3.0E+00	mg/kg-day	no observed effects	HEAST/ATSDR 1995/IRIS, TACO	July 1997
Benzo(a)anthracene	NA	NA	mg/kg-day	100	NA	mg/kg-day	NA	IRIS/ATSDR 1990/IRIS, TACO	04/07/2005
Benzo(b)fluoranthene	NA	NA	mg/kg-day	NA	NA	mg/kg-day	NA	IRIS/ATSDR 1990/IRIS, TACO	04/07/2005
Benzo(k)fluoranthene	NA	NA	mg/kg-day	NA	NA	mg/kg-day	NA	IRIS/NA/IRIS, TACO	04/07/2005
Benzo(g,h,i)perylene	NA	NA	mg/kg-day	NA	NA	mg/kg-day	NA	IRIS/NA/IRIS, TACO	04/07/2005
Benzo(a)pyrene	NA	NA	mg/kg-day	80	NA	mg/kg-day	NA	IRIS/ATSDR 1995/IRIS, TACO	04/07/2005
Chrysene	NA	NA	mg/kg-day	41	NA	mg/kg-day	NA	IRIS/ATSDR 1990/IRIS, TACO	04/07/2005
Dibenzo(a,h)anthracene	NA	NA	mg/kg-day	90	NA	mg/kg-day	NA	IRIS/ATSDR 1990/IRIS, TACO	04/07/2005
Fluoranthene	Subchronic	4.0E-01	mg/kg-day	NA	4.0E-01	mg/kg-day	kidney, nephropathy, increased liver wt, hematological alterations & clinical effects	HEAST/NA/IRIS, TACO	July 1997
Fluorene	Subchronic	4.0E-01	mg/kg-day	NA	4.0E-01	mg/kg-day	circulatory system, decreased RBC, packed cell volume & hemoglobin	HEAST/NA/IRIS, TACO	July 1997
Indeno(1,2,3-cd)pyrene	NA	NA	mg/kg-day	NA	NA	mg/kg-day	NA	IRIS/NA/IRIS, TACO	04/07/2005
Naphthalene	Chronic	2.0E-02	mg/kg-day	NA	2.0E-02	mg/kg-day	decreased mean terminal body wt	IRIS/ATSDR 1995/IRIS, TACO	04/07/2005
Phenanthrene	NA	NA	mg/kg-day	97	NA	mg/kg-day	NA	IRIS/ATSDR 1995/IRIS, TACO	04/07/2005
Pyrene	Subchronic	3.0E-01	mg/kg-day	92	3.0E-01	mg/kg-day	kidney effects	HEAST/ATSDR 1995/IRIS, TACO	July 1997

Notes:

(1) Refer to Risk Assessment Guidance for Superfund (RAGS), Part A.

(2) Adjusted Dermal RfD = Oral RfD * (Absorption Efficiency). No adjustment was performed for organic compounds (RAGS Part E, USEPA 2004a).

(3) Date of most recent search of IRIS or HEAST Table.

ATSDR - Agency for Toxic Substances and Disease Registry.
IRIS - Integrated Risk Information System.
TACO - Illinois EPA Tiered Approach to Corrective Action Objectives.
NA - Not Available.
CNS - Central nervous system
USEPA - United States Environmental Protection Agency.
HEAST - Health Effects Assessment Summary Table

Table 9a (Continued)
Non-Cancer Toxicity Data -- Oral/Dermal
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Absorption Efficiency (%) (1)	Adjusted Dermal RfD (2)	Units	Target Organ or System	Sources of RfD/ Absorption/ Target Organ	Dates of RfD: (3) Target Organ (MM/DD/YYYY)
Aroclor 1242	NA	NA	mg/kg-day	90	NA	mg/kg-day	NA	IRIS/ATSDR 2000/IRIS, TACO	04/07/2005
Aroclor 1254	Subchronic	5.0E-05	mg/kg-day	90	5.0E-05	mg/kg-day	ocular exudate, inflamed and prominent meibomian glands, distorted growth of finger and toe	HEAST/ATSDR 2000/IRIS, TACO	July 1997
Arsenic	Chronic/ Subchronic	3.0E-04	mg/kg-day	95	2.9E-04	mg/kg-day	Hyperpigmentation, keratosis and possible vascular complications	IRIS, HEAST/USEPA 2004a/IRIS, TACO	04/07/2005, July 1997
Beryllium	Chronic/ Subchronic	5.0E-03	mg/kg-day	0.7	NR	mg/kg-day	sm. intestinal lesions	IRIS, HEAST/USEPA 2004a/IRIS, TACO	04/07/2005, July 1997
Cadmium	Chronic	1.0E-03	mg/kg-day	2.5	2.5E-05	mg/kg-day	kidney	IRIS/USEPA 2004a/IRIS, TACO	04/07/2005
Chromium (4)	Subchronic	2.0E-02	mg/kg-day	2.5	NR	mg/kg-day	none reported	HEAST/USEPA 2004a/IRIS, TACO	July 1997
Copper	Chronic/ Subchronic	4.0E-02	mg/kg-day	NA	NR	mg/kg-day	NA	HEAST/NA/IRIS, TACO	July 1997
Lead	NA	NA	mg/kg-day	NA	NA	mg/kg-day	NA	IRIS/NA/IRIS, TACO	04/07/2005
Mercury	NA	NA	mg/kg-day	80	NA	mg/kg-day	immune system	IRIS/USEPA 2004a/IRIS, TACO	04/07/2005
Nickel (5)	Chronic/ Subchronic	2.0E-02	mg/kg-day	4	NR	mg/kg-day	decreased body and organ weights	IRIS, HEAST/USEPA 2004a/IRIS, TACO	04/07/2005, July 1997
Selenium	Chronic/ Subchronic	5.0E-03	mg/kg-day	80	NR	mg/kg-day	clinical selenosis	IRIS, HEAST/USEPA 2004a/IRIS, TACO	04/07/2005, July 1997
Thallium	Chronic	NA	mg/kg-day	100	NA	mg/kg-day	NA	IRIS/USEPA 2004a/IRIS, TACO	04/07/2005
Zinc	Chronic/ Subchronic	3.0E-01	mg/kg-day	NA	NR	mg/kg-day	circulatory system: decrease in erythrocyte superoxide dismutase (ESOD) concentration	IRIS, HEAST/USEPA 2004a/IRIS, TACO	04/07/2005, July 1997
Total Cyanide	Chronic/ Subchronic	2.0E-02	mg/kg-day	NA	NR	mg/kg-day	CNS	IRIS, HEAST/USEPA 2004a/IRIS, TACO	04/07/2005, July 1997

Notes:

(1) Refer to Risk Assessment Guidance for Superfund (RAGS), Part A.

(2) Adjusted Dermal RfD = Oral RfD * (Absorption Efficiency). No adjustment was performed for organic compounds (RAGS Part E, USEPA 2004a). RAGS Part E includes arsenic and cadmium in the list of inorganic analytes recommeded for calculation of dermal risk and excludes the rest.

(3) Date of most recent search of IRIS or HEAST Table.

(4) Toxicity value for Chromium VI particulates

(5) Toxicity value for Nickel is for soluble salts.

NA - Not Available.
IRIS - Integrated Risk Information System.
ATSDR - Agency for Toxic Substances and Disease Registry.
TACO - Illinois EPA Tiered Approach to Corrective Action Objectives.
HEAST - Health Effects Assessment Summary Table
USEPA - United States Environmental Protection Agency.
NR - Not Recommended.
CNS - Central Nervous System

Table 9a (Continued)
Cancer Toxicity Data -- Oral/Dermal
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor (%)	Adjusted Dermal Cancer Slope Factor (1)	Units	Weight of Evidence/ Cancer Guideline Description	Source	Date (2) (MM/DD/YY)
Acetone	NA	83	NA	(mg/kg-day) -1	D	IRIS/ATSDR 1992	04/07/2005
Benzene	5.5E-02	90	5.5E-02	(mg/kg-day) -1	A	IRIS/ATSDR 1995	04/07/2005
2-Butanone	NA	80	NA	(mg/kg-day) -1	D	IRIS/ATSDR 1992	04/07/2005
Carbon Disulfide	NA	63	NA	(mg/kg-day) -1	NA	IRIS/ ATSDR 1992	04/07/2005
Ethylbenzene	NA	92	NA	(mg/kg-day) -1	D	IRIS/ATSDR 1997	04/07/2005
Styrene	NA	NA	NA	(mg/kg-day) -1	NA	IRIS/ATSDR 1995/IRIS	04/07/2005
Toluene	NA	100	NA	(mg/kg-day) -1	D	IRIS/ATSDR 1997	04/07/2005
m,p-Xylene	NA	92	NA	(mg/kg-day) -1	D	IRIS/ATSDR 1995	04/07/2005
o-Xylene	NA	92	NA	(mg/kg-day) -1	D	IRIS/ATSDR 1995	04/07/2005
Bis(2-ethylhexyl)phthalate	1.4E-02	NA	1.4E-02	(mg/kg-day) -1	B2	IRIS	04/07/2005
Carbazole	2.0E-02	70	2.0E-02	(mg/kg-day) -1	NA	IRIS/USEPA Region III/ USEPA 1986 (3)	04/07/2005, 10/08/2004
Dibenzofuran	NA	NA	NA	(mg/kg-day) -1	D	IRIS	04/07/2005
2-Methylnaphthalene	NA	80	NA	(mg/kg-day) -1	NA	IRIS/ATSDR 1995	04/07/2005
Acenaphthene	NA	NA	NA	(mg/kg-day) -1	NA	IRIS	04/07/2005
Acenaphthylene	NA	NA	NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Anthracene	NA	71	NA	(mg/kg-day) -1	D	IRIS/ATSDR 1995	04/07/2005
Benzo(a)anthracene	7.3E-01	100	7.3E-01	(mg/kg-day) -1	B2	IRIS/USEPA Region III/ ATSDR 1990 (3)	04/07/2005, 10/08/2004
Benzo(b)fluoranthene	7.3E-01	NA	7.3E-01	(mg/kg-day) -1	B2	IRIS/USEPA Region III/ ATSDR 1990 (3)	04/07/2005, 10/08/2004
Benzo(k)fluoranthene	7.3E-02	NA	7.3E-02	(mg/kg-day) -1	B2	IRIS/USEPA Region III (3)	04/07/2005, 10/08/2004
Benzo(g,h,i)perylene	NA	NA	NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Benzo(a)pyrene	7.3E+00	80	7.3E+00	(mg/kg-day) -1	B2	IRIS/ATSDR 1995	04/07/2005
Chrysene	7.3E-03	41	7.3E-03	(mg/kg-day) -1	B2	IRIS/USEPA Region III/ ATSDR 1990 (3)	04/07/2005, 10/08/2004
Dibenzo(a,h)anthracene	7.3E+00	90	7.3E+00	(mg/kg-day) -1	B2	IRIS/USEPA Region III/ ATSDR 1990 (3)	04/07/2005, 10/08/2004
Fluoranthene	NA	NA	NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Fluorene	NA	NA	NA	(mg/kg-day) -1	D	IRIS/NA	04/07/2005
Indeno(1,2,3-cd)pyrene	7.3E-01	NA	7.3E-01	(mg/kg-day) -1	B2	IRIS/USEPA Region III (3)	04/07/2005, 10/08/2004
Naphthalene	NA	NA	NA	(mg/kg-day) -1	C	IRIS/ATSDR 1995	04/07/2005
Phenanthrene	NA	97	NA	(mg/kg-day) -1	D	IRIS/ATSDR 1995	04/07/2005
Pyrene	NA	92	NA	(mg/kg-day) -1	D	IRIS/ATSDR 1995	04/07/2005

Notes:
NA - Not Available.
IRIS - Integrated Risk Information System.
ATSDR - Agency for Toxic Substances and Disease Registry.
USEPA - United States Environmental Protection Agency.
NCEA - National Center for Enviromental Assessment

(1) Adjusted Dermal SF = Oral SF / (Adjustment Factor). No adjustment was performed for organic compounds (RAGS Part E, USEPA 2004a).
(2) Date of most recent search of IRIS or HEAST Table or Region III RBC Table.
(3) USEPA Region III RBC Table dated 10/08/2004 provides USEPA-NCEA provisional oral cancer slope factor (USEPA 2004b).

USEPA Group:
A - Human carcinogen
B1 - Probable human carcinogen - indicates that limited human data are available
B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans
C - Possible human carcinogen
D - Not classifiable as a human carcinogen

Table 9a (Continued)
Cancer Toxicity Data -- Oral/Dermal
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor (%)	Adjusted Dermal Cancer Slope Factor (1)	Units	Weight of Evidence/ Cancer Guideline Description	Source	Date (2) (MM/DD/YY)
Aroclor 1242	2.0E+00	90	2.0E+00	(mg/kg-day) -1	B2	IRIS/ATSDR 2000	04/07/2005
Aroclor 1254	2.0E+00	90	2.0E+00	(mg/kg-day) -1	B2	IRIS/ATSDR 2000	04/07/2005
Arsenic	1.5E+00	95	1.6E+00	(mg/kg-day) -1	A	IRIS/USEPA 2004a	04/07/2005
Beryllium	NA	0.7	NA	(mg/kg-day) -1	B1	IRIS/USEPA 2004a	04/07/2005
Cadmium	NA	2.5	NA	(mg/kg-day) -1	B1	IRIS/USEPA 2004a	04/07/2005
Chromium	NA	2.5	NA	(mg/kg-day) -1	D	IRIS/USEPA 2004a	04/07/2005
Copper	NA	NA	NA	(mg/kg-day) NA	D	IRIS	04/07/2005
Lead	NA	NA	NA	(mg/kg-day) -1	B2	IRIS	04/07/2005
Mercury	NA	80	NA	(mg/kg-day) -1	D	IRIS/USEPA 2004a	04/07/2005
Nickel	NA	4	NA	(mg/kg-day) -1	NA	IRIS/USEPA 2004a	04/07/2005
Selenium	NA	80	NA	(mg/kg-day) -1	D	IRIS/USEPA 2004a	04/07/2005
Thallium	NA	100	NA	(mg/kg-day) -1	NA	IRIS/USEPA 2004a	04/07/2005
Zinc	NA	NA	NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Total Cyanide	NA	NA	NA	(mg/kg-day) -1	D	IRIS	04/07/2005

Notes:
IRIS - Integrated Risk Information System.
ATSDR - Agency for Toxic Substances and Disease Registry.
USEPA - United States Environmental Protection Agency.
NA - Not Available.
NCEA - National Center for Enviromental Assessment

(1) Adjusted Dermal SF = Oral SF / (Adjustment Factor). No adjustment was performed for organic compounds (RAGS Part E, USEPA 2004a).
(2) Date of most recent search of IRIS.

USEPA Group:
A - Human carcinogen
B1 - Probable human carcinogen - indicates that limited human data are available
B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans
C - Possible human carcinogen
D - Not classifiable as a human carcinogen

Table 9b
Non-Cancer Toxicity Data -- Inhalation
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Adjusted Inhalation RfD (1)	Units	Primary Target Organ	Sources of RfC:RfD/ Target Organ	Date (2) (MM/DD/YYYY)
Acetone	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Benzene	Chronic	3.0E-02	mg/m^3	8.6E-03	mg/kg-day	decreased fetal birth rate	IRIS/IRIS, TACO	04/07/2005
2-Butanone	Subchronic	1.0E+00	mg/m^3	2.9E-01	mg/kg-day	Developmental toxicity (skeletal variations)	HEAST/IRIS, TACO	July 1997
Carbon Disulfide	Chronic/ Subchronic	7.0E-01	mg/m^3	2.0E-01	mg/kg-day	CNS, reproductive system	IRIS, HEAST/IRIS, TACO	04/07/2005, July 1997
Ethylbenzene	Chronic	1.0E+00	mg/m^3	2.9E-01	mg/kg-day	kidney, liver, reproductive system, developmental toxicity	IRIS/IRIS, TACO	04/07/2005
Styrene	Subchronic	3.0E+00	mg/m^3	8.6E-01	mg/kg-day	CNS effects	HEAST/IRIS, TACO	July 1997
Toluene	Chronic	4.0E-01	mg/m^3	NC	mg/kg-day	neurological effects, respiratory system	IRIS/IRIS, TACO	04/07/2005
m,p-Xylene	Chronic	1.0E-01	mg/m^3	2.9E-02	mg/kg-day	impaired motor coordination	IRIS/IRIS, TACO	04/07/2005
o-Xylene	Chronic	1.0E-01	mg/m^3	2.9E-02	mg/kg-day	impaired motor coordination	IRIS/IRIS, TACO	04/07/2005
Bis(2-ethylhexyl)phthalate	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Carbazole	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Dibenzofuran	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
2-Methylnaphthalene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Acenaphthene	NA	NA	mg/m^3	NA	mg/kg-day	liver	IRIS/IRIS, TACO	04/07/2005
Acenaphthylene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Anthracene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Benzo(a)anthracene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Benzo(b)fluoranthene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Benzo(k)fluoranthene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS	04/07/2005
Benzo(g,h,i)perylene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Benzo(a)pyrene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Chrysene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Dibenzo(a,h)anthracene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS	04/07/2005
Fluoranthene	NA	NA	mg/m^3	NA	mg/kg-day	kidney, liver, circulatory system	IRIS/IRIS, TACO	04/07/2005
Fluorene	NA	NA	mg/m^3	NA	mg/kg-day	circulatory system	IRIS/IRIS, TACO	04/07/2005
Indeno(1,2,3-cd)pyrene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Naphthalene	Chronic	3.0E-03	mg/m^3	NC	mg/kg-day	nasal effects, respiratory system	IRIS/IRIS, TACO	04/07/2005
Phenanthrene	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Pyrene	NA	NA	mg/m^3	NA	mg/kg-day	kidney	IRIS/IRIS, TACO	04/07/2005

Notes:

(1) Adjusted Inhalation RfD = RfC * ($20m^3$/day / 70 kg).

(2) Date of most recent search of IRIS or HEAST Table.

(3) Inhalation RfC for toluene and naphthalene are not converted to inhalation RfD since toxicity is at point of contact rather than systemic.

NA - Not Available

IRIS - Integrated Risk Information System

TACO - Illinois EPA Tiered Approach to Corrective Action Objectives

NC - Not converted.

CNS - Central nervous system.

HEAST - Health Effects Assessment Summary Table.

Table 9b (Continued)
Non-Cancer Toxicity Data -- Inhalation
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Adjusted Inhalation RfD (1)	Units	Primary Target Organ	Sources of RfC:RfD/ Target Organ	Date (2) (MM/DD/YYYY)
Aroclor 1242	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Aroclor 1254	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Arsenic	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Beryllium	Chronic	2.0E-05	mg/m^3	NC	mg/kg-day	beryllium sensitization	IRIS/IRIS, TACO	04/07/2005
Cadmium	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Chromium (3)	Chronic	1.0E-04	mg/m^3	NC	mg/kg-day	lactate dehydrogenase in bronchioalveolar lavage fluid	IRIS/IRIS, TACO	04/07/2005
Copper	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Lead	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Mercury	Chronic/ Subchronic	3.0E-04	mg/m^3	8.6E-05	mg/kg-day	CNS, tremor, memory loss, autonomic disfunction	IRIS, HEAST/IRIS, TACO	04/07/2005, July 1997
Nickel	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Selenium	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Thallium	NA	NA	mg/m^3	NA	mg/kg-day	NA	IRIS/IRIS, TACO	04/07/2005
Zinc	NA	NA	mg/m^3	NA	mg/kg-day	circulatory system	IRIS/IRIS, TACO	04/07/2005
Total Cyanide	NA	NA	mg/m^3	NA	mg/kg-day	CNS	IRIS/IRIS, TACO	04/07/2005

Notes:

(1) Adjusted Inhalation RfD = RfC * ($20m^3$/day / 70 kg).

(2) Date of most recent search of IRIS or HEAST Table.

(3) Toxicity value for Chromium VI particulates.

(4) Inhalation RfC for beryllium and chromium are not converted to inhalation RfD since toxicity is at point of contact rather than systemic.

NA - Not Available

IRIS - Integrated Risk Information System

TACO - Illinois EPA Tiered Approach to Corrective Action Objectives

NC - Not converted.

CNS - Central nervous system.

HEAST - Health Effects Assessment Summary Table.

Table 9b (Continued)
Cancer Toxicity Data -- Inhalation
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Chemical of Potential Concern	Unit Risk	Units	Adjustment (1)	Inhalation Cancer Slope Factor (2)	Units	Weight of Evidence/ Cancer Guideline Description	Source	Date (3) (MM/DD/YYYY)
Acetone	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Benzene	7.8E-06	(ug/m3) -1	3,500	2.7E-02	(mg/kg-day) -1	A	IRIS	04/07/2005
2-Butanone	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Carbon Disulfide	NA	(ug/m3) -1		NA	(mg/kg-day) -1	NA	IRIS	04/07/2005
Ethylbenzene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Styrene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	NA	IRIS	04/07/2005
Toluene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
m,p-Xylene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
o-Xylene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Bis(2-ethylhexyl)phthalate	NA	(ug/m3) -1		NA	(mg/kg-day) -1	B2	IRIS	04/07/2005
Carbazole	NA	(ug/m3) -1		NA	(mg/kg-day) -1	NA	IRIS	04/07/2005
Dibenzofuran	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
2-Methylnaphthalene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	NA	IRIS	04/07/2005
Acenaphthene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	NA	IRIS	04/07/2005
Acenaphthylene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Anthracene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Benzo(a)anthracene	8.8E-05	(ug/m3) -1		NC	(mg/kg-day) -1	B2	IRIS/Region III (4)	04/07/2005, 10/08/2004
Benzo(b)fluoranthene	8.8E-05	(ug/m3) -1		NC	(mg/kg-day) -1	B2	IRIS/Region III (4)	04/07/2005, 10/08/2004
Benzo(k)fluoranthene	8.8E-06	(ug/m3) -1		NC	(mg/kg-day) -1	B2	IRIS/Region III (4)	04/07/2005, 10/08/2004
Benzo(g,h,i)perylene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Benzo(a)pyrene	8.8E-04	(ug/m3) -1		NC	(mg/kg-day) -1	B2	IRIS/Region III (4)	04/07/2005, 10/08/2004
Chrysene	8.8E-07	(ug/m3) -1		NC	(mg/kg-day) -1	B2	IRIS/Region III (4)	04/07/2005, 10/08/2004
Dibenzo(a,h)anthracene	8.8E-04	(ug/m3) -1		NC	(mg/kg-day) -1	B2	IRIS/Region III (4)	04/07/2005, 10/08/2004
Fluoranthene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Fluorene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Indeno(1,2,3-cd)pyrene	8.8E-05	(ug/m3) -1		NC	(mg/kg-day) -1	B2	IRIS/Region III (4)	04/07/2005, 10/08/2004
Naphthalene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	C	IRIS	04/07/2005
Phenanthrene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Pyrene	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005

Notes:

NA - Not Available.

IRIS - Integrated Risk Information System.

NC - Not Converted

USEPA - United States Environmental Protection Agency.

(1) Adjustment Factor applied to Unit Risk to calculate Inhalation Slope Factor.
= 70kg x 1/20m^3/day x 1000ug/mg.

(2) Unit risk for carcinogenic PAHs are not converted to slope factor since toxicity is at point of contact rather than systemic.

(3) Date of most recent search of IRIS or most recent USEPA-National Center for Enviromental Agency provisional value.

(4) USEPA Region III RBC Table dated 10/08/2004 provides USEPA-National Center for Enviromental Agency provisional inhalation UR for benzo(a)pyrene (USEPA 2004b). Other carcinogenic PAH URs are calculated using benzo(a)pyrene equivalency values.

USEPA Group:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

Table 9b (Continued)
Cancer Toxicity Data -- Inhalation
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Chemical of Potential Concern	Unit Risk	Units	Adjustment	Inhalation Cancer Slope Factor (1)	Units	Weight of Evidence/ Cancer Guideline Description	Source	Date (2) (MM/DD/YYYY)
Aroclor 1242	NA	(ug/m3) -1		2.0E+00	(mg/kg-day) -1	B2	IRIS	04/07/2005
Aroclor 1254	NA	(ug/m3) -1		2.0E+00	(mg/kg-day) -1	B2	IRIS	04/07/2005
Arsenic	4.3E-03	(ug/m3) -1		NC	(mg/kg-day) -1	A	IRIS	04/07/2005
Beryllium	2.4E-03	(ug/m3) -1		NC	(mg/kg-day) -1	B1	IRIS	04/07/2005
Cadmium	1.8E-03	(ug/m3) -1		NC	(mg/kg-day) -1	B1	IRIS	04/07/2005
Chromium (3)	1.2E-02	(ug/m3) -1		NC	(mg/kg-day) -1	A	IRIS	04/07/2005
Copper	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Lead	NA	(ug/m3) -1		NA	(mg/kg-day) -1	B2	IRIS	04/07/2005
Mercury	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Nickel	NA	(ug/m3) -1		NA	(mg/kg-day) -1	NA	IRIS	04/07/2005
Selenium	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Thallium	NA	(ug/m3) -1		NA	(mg/kg-day) -1	NA	IRIS	04/07/2005
Zinc	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005
Total Cyanide	NA	(ug/m3) -1		NA	(mg/kg-day) -1	D	IRIS	04/07/2005

Notes:

NA - Not Available.

IRIS - Integrated Risk Information System.

NC - Not converted.

USEPA - United States Environmental Protection Agency.

(1) Unit risk factors for arsenic, beryllium, cadmium and chromium are not converted to slope factor since toxicity is at point of contact rather than systemic.

(2) Date of most recent search of IRIS or most recent USEPA-NCEA provisional value.

(3) Toxicity value for Chromium VI particulates.

USEPA Group:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

Table 10
Values Used For Daily Intake Calculations
Post-Remediation Utility Worker
Hawthorne Regulator Station

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Subsurface Soil
Exposure Point:	Subsurface Soil
Receptor Population:	Utility Worker
Receptor Age:	Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation
Ingestion	CS	Chemical Concentration in Soil	mg/kg	See Table 3	See Table 3	See Table 3	See Table 3	Daily Intake (DI) (mg/kg-day) =
	IR	Ingestion Rate of Soil	mg/day	330	USEPA 2002	100	USEPA 1997a	CS x IR x EF x ED x FI x CF x 1/BW x 1/AT
	FI	Fraction Ingested	- -	1	USEPA 1989	1	USEPA 1989	
	EF	Exposure Frequency	days/year	20	(1)	10	(1)	
	ED	Exposure Duration	years	1	(1)	1	(1)	
	CF	Conversion Factor (mg to kg)	kg/mg	1E-06	- -	1E-06	- -	
	BW	Body Weight	kg	70	USEPA 1991	70	USEPA 1991	
	ATc	Averaging Time (Cancer)	days	25,550	USEPA 1991	25,550	USEPA 1991	
	ATn	Averaging Time (Non-Cancer)	days	28	(1)	14	(1)	
Dermal	CS	Chemical Concentration in Soil	mg/kg	See Table 3	See Table 3	See Table 3	See Table 3	DI (mg/kg-day) =
	CF	Conversion Factor (mg to kg)	kg/mg	1E-06	--	1E-06	--	CS x SA x CF x AF x ABS x EF x ED x 1/BW x 1/AT
	AF	Soil to Skin Adherence Factor	mg/cm^2	0.9	USEPA 2004a	0.2	USEPA 2004a	
	ABS	Absorption Factor	- -	Chemical Specific See Table 12	USEPA 2004a	Chemical Specific See Table 16	USEPA 2004a	
	SA	Skin Surface Area Available for Contact	cm^2	3,300	USEPA 2004a	3,300	USEPA 2004a	
	ED	Exposure Duration	years	1	(1)	1	(1)	
	BW	Body Weight	kg	70	USEPA 1991	70	USEPA 1991	
	ATc	Averaging Time (Cancer)	days	25,550	USEPA 1991	25,550	USEPA 1991	
	ATn	Averaging Time (Non-Cancer)	days	28	(1)	14	(1)	

Notes:

(1) Assumed value based on expected activity patterns of utility worker. Work to be completed within 1 year. EF: RME = 4 weeks, 5 days/week CT = 2 weeks, 5 days/week. ATn: RME = 4 weeks, 7 days/week CT = 2 weeks, 7 days/week.

SOURCES:

USEPA 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part A). Interim Final. EPA/540/1-89/002, December.

USEPA 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03, March 15.

USEPA 1997a: Exposure Factors Handbook: Volume I - General Factors, August.

USEPA 2002: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER Directive 9355.4-24, December.

USEPA 2004a: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual Part E - Supplemental Guidance for Dermal Risk Assessment, Interim Review Draft. OSWER Directive 9285.7-02EP, July.

Table 10 (Continued)
Values Used For Chronic Daily Intake Calculations
Post-Remediation Utility Worker
Hawthorne Regulator Station

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Subsurface Soil
Exposure Point:	Subsurface Soil
Receptor Population:	Utility Worker
Receptor Age:	Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation
Inhalation of Fugitive Dust	CS	COPC Concentration in Soil	mg/kg	See Table 3	See Table 3	See Table 3	See Table 3	DI (mg/kg-day) =
	IR	Inhalation Rate	m^3/day	20	(1)	12	(1)	CS x IR x EF x ED/BW x AT x PEF
	PEF	Particulate Emission Factor	m^3/kg	1.24E+08	IAC 2002	1.24E+08	IAC 2002	
	EF	Exposure Frequency	days/year	20	(2)	10	(2)	DI for use with RfC/UR (mg/m^3) =
	ED	Exposure Duration	years	1	(2)	1	(2)	CS x EF x ED/AT x PEF
	BW	Body Weight	kg	70	USEPA 1991	70	USEPA 1991	
	ATc	Averaging Time (Cancer)	days	25,550	USEPA 1991	25,550	USEPA 1991	
	ATn	Averaging Time (Non-Cancer)	days	28	(2)	14	(2)	
Inhalation of Vapor Phase COPCS	Cb	COPC Concentration in Air	mg/m^3	See Table 6	See Tables 4-6	See Table 6	See Tables 4-6	DI (mg/kg-day) =
	IR	Inhalation Rate	m^3/day	20	(1)	12	(1)	Cb x IR x EF x ED/BW x AT
	EF	Exposure Frequency	days/year	20	(2)	10	(2)	
	ED	Exposure Duration	years	1	(2)	1	(2)	DI for use with RfC (mg/m^3) =
	BW	Body Weight	kg	70	USEPA 1991	70	USEPA 1991	Cb x EF x ED/AT x PEF
	ATc	Averaging Time (Cancer)	days	25,550	USEPA 1991	25,550	USEPA 1991	
	ATn	Averaging Time (Non-Cancer)	days	28	(2)	14	(2)	

Notes:

(1) Assumes 8 hours a day of heavy activity (2.5 m^3/hr) for the RME value and 8 hours of moderate activity (1.5 m^3/hr) for the CT value (USEPA 1997a).

(2) Assumed value based on expected activity patterns of utility worker. Work to be completed within 1 year. EF: RME = 4 weeks, 5 days/week CT = 2 weeks, 5 days/week. ATn: RME = 4 weeks, 7 days/week CT = 2 weeks, 7 days/week.

SOURCES:

Illinois Administrative Code (IAC), 2002: Title 35: Environmental Protection, Subtitle G, Chapter I, Pollution Control Board, Subchapter f, Part 742: Tiered Approach to Corrective Action Objectives (TACO), Appendix C, Table B, February.

USEPA 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03, March 15.

USEPA 1997a: Exposure Factors Handbook: Volume 1 - General Factors, August.

Table 11
Incidental Ingestion of Soil
Reasonable Maximum Exposure (RME)
Post-Remediation Utility Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Oral RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	Risk unitless
Acetone	0.35	3.37E-06	1.18E-06	1.00E+00	1.18E-06	3.69E-09	1.29E-09		
Benzene	0.03	3.37E-06	1.01E-07	4.0E-03	3E-05	3.69E-09	1.11E-10	5.5E-02	6E-12
2-Butanone	0.17	3.37E-06	5.72E-07	2.0E+00	3E-07	3.69E-09	6.27E-10		
Carbon Disulfide	0.03	3.37E-06	1.01E-07	1.0E-01	1E-06	3.69E-09	1.11E-10		
Ethylbenzene	4.7	3.37E-06	1.58E-05	1.0E-01	2E-04	3.69E-09	1.73E-08		
Styrene	0.036	3.37E-06	1.21E-07	2.0E-01	6E-07	3.69E-09	1.33E-10		
Toluene	0.019	3.37E-06	6.40E-08	2.0E+00	3E-08	3.69E-09	7.01E-11		
m,p-Xylene	0.12	3.37E-06	4.04E-07	2.0E-01	2E-06	3.69E-09	4.43E-10		
o-Xylene	2	3.37E-06	6.73E-06	2.0E-01	3E-05	3.69E-09	7.38E-09		
Bis(2-ethylhexyl)phthalate	2.9	3.37E-06	9.77E-06	2.0E-02	5E-04	3.69E-09	1.07E-08	1.4E-02	1E-10
Carbazole	0.5	3.37E-06	1.68E-06			3.69E-09	1.85E-09	2.0E-02	4E-11
Dibenzofuran	0.67	3.37E-06	2.26E-06			3.69E-09	2.47E-09		
2-Methylnaphthalene	2.3	3.37E-06	7.74E-06	4.0E-03	2E-03	3.69E-09	8.49E-09		
Acenaphthene	0.34	3.37E-06	1.14E-06	6.0E-01	2E-06	3.69E-09	1.25E-09		
Acenaphthylene	0.14	3.37E-06	4.71E-07			3.69E-09	5.17E-10		
Anthracene	2	3.37E-06	6.73E-06	3.0E+00	2E-06	3.69E-09	7.38E-09		
Benzo(a)anthracene	4.9	3.37E-06	1.65E-05			3.69E-09	1.81E-08	7.3E-01	1E-08
Benzo(b)fluoranthene	2.8	3.37E-06	9.43E-06			3.69E-09	1.03E-08	7.3E-01	8E-09
Benzo(k)fluoranthene	2	3.37E-06	6.73E-06			3.69E-09	7.38E-09	7.3E-02	5E-10
Benzo(g,h,i)perylene	1.5	3.37E-06	5.05E-06			3.69E-09	5.54E-09		
Benzo(a)pyrene	5.2	3.37E-06	1.75E-05			3.69E-09	1.92E-08	7.3E+00	1E-07
Chrysene	4.4	3.37E-06	1.48E-05			3.69E-09	1.62E-08	7.3E-03	1E-10
Dibenzo(a,h)anthracene	0.66	3.37E-06	2.22E-06			3.69E-09	2.44E-09	7.3E+00	2E-08
Fluoranthene	7.5	3.37E-06	2.53E-05	4.0E-01	6E-05	3.69E-09	2.77E-08		
Fluorene	0.35	3.37E-06	1.18E-06	4.0E-01	3E-06	3.69E-09	1.29E-09		
Indeno(1,2,3-cd)pyrene	1.5	3.37E-06	5.05E-06			3.69E-09	5.54E-09	7.3E-01	4E-09
Naphthalene	3.7	3.37E-06	1.25E-05	2.0E-02	6E-04	3.69E-09	1.37E-08		
Phenanthrene	1.9	3.37E-06	6.40E-06			3.69E-09	7.01E-09		
Pyrene	10	3.37E-06	3.37E-05	3.0E-01	1E-04	3.69E-09	3.69E-08		
Aroclor 1242	0.29	3.37E-06	9.77E-07			3.69E-09	1.07E-09	2.0E+00	2E-09
Aroclor 1254	0.36	3.37E-06	1.21E-06	5.0E-05	2E-02	3.69E-09	1.33E-09	2.0E+00	3E-09
Arsenic	23	3.37E-06	7.74E-05	3.0E-04	3E-01	3.69E-09	8.49E-08	1.5E+00	1E-07
Beryllium	2.2	3.37E-06	7.41E-06	5.0E-03	1E-03	3.69E-09	8.12E-09		
Cadmium	4.1	3.37E-06	1.38E-05	1.0E-03	1E-02	3.69E-09	1.51E-08		
Chromium*	21	3.37E-06	7.07E-05	2.0E-02	4E-03	3.69E-09	7.75E-08		
Copper	84	3.37E-06	2.83E-04	4.0E-02	7E-03	3.69E-09	3.10E-07		
Lead	360	3.37E-06	1.21E-03			3.69E-09	1.33E-06		
Mercury	1.2	3.37E-06	4.04E-06			3.69E-09	4.43E-09		
Nickel	46	3.37E-06	1.55E-04	2.0E-02	8E-03	3.69E-09	1.70E-07		
Selenium	1.4	3.37E-06	4.71E-06	5.0E-03	9E-04	3.69E-09	5.17E-09		
Thallium	1.8	3.37E-06	6.06E-06			3.69E-09	6.64E-09		
Zinc	1400	3.37E-06	4.71E-03	3.0E-01	2E-02	3.69E-09	5.17E-06		
Total Cyanide	0.8	3.37E-06	2.69E-06	2.0E-02	1E-04	3.69E-09	2.95E-09		
		Total Pathway Hazard Index--------->			3E-01	Total Pathway Risk----->			3E-07

INCIDENTAL INGESTION OF SOIL

CS = Concentration of chemical in soil (mg/kg). See Table 3.

1.00E-06 CF = 0.000001 kg/mg - Conversion Factor

3.30E+02 IR = 330 mg/day - Ingestion Rate of soil for a utility worker, (USEPA 2002)

1.00E+00 ED = 1 yr - Exposure Duration for a utility worker, (assumed value)

2.00E+01 EF = 20 days/yr - Exposure Frequency for a utility worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

2.80E+01 ATn = 28 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

1.00E+00 FI = 1 - Fraction Ingested, (USEPA 1989)

HIF--NONCARCINOGENIC----------> 3.37E-06 HIF = (IR * EF * ED * FI / BW) * CF / (ATn)

HIF--CARCINOGENIC----------> 3.69E-09 HIF = (IR * EF * ED * FI / BW) * CF / (ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

* Chromium concentration is total chromium, RfD is for chromium VI particulates.

Table 12
Dermal Contact with Soil
Reasonable Maximum Exposure (RME)
Post-Remediation Utility Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Absorption Factor (ABS) unitless	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Adjusted Dermal RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Adjusted Dermal Slope Factor $(mg/kg\text{-}day)^{-1}$	Risk unitless
Acetone*	0.35									
Benzene*	0.03									
2-Butanone*	0.17									
Carbon Disulfide*	0.03									
Ethylbenzene*	4.7									
Styrene*	0.036									
Toluene*	0.019									
m,p-Xylene*	0.12									
o-Xylene*	2									
Bis(2-ethylhexyl)phthalate	2.9	1.00E-01	3.03E-05	8.79E-06	2.0E-02	4E-04	3.32E-08	9.63E-09	1.4E-02	1E-10
Carbazole	0.5	1.00E-01	3.03E-05	1.52E-06			3.32E-08	1.66E-09	2.0E-02	3E-11
Dibenzofuran	0.67	1.00E-01	3.03E-05	2.03E-06			3.32E-08	2.23E-09		
2-Methylnaphthalene	2.3	1.30E-01	3.03E-05	9.06E-06	4.0E-03	2E-03	3.32E-08	9.93E-09		
Acenaphthene	0.34	1.30E-01	3.03E-05	1.34E-06	6.0E-01	2E-06	3.32E-08	1.47E-09		
Acenaphthylene	0.14	1.30E-01	3.03E-05	5.52E-07			3.32E-08	6.04E-10		
Anthracene	2	1.30E-01	3.03E-05	7.88E-06	3.0E+00	3E-06	3.32E-08	8.64E-09		
Benzo(a)anthracene	4.9	1.30E-01	3.03E-05	1.93E-05			3.32E-08	2.12E-08	7.3E-01	2E-08
Benzo(b)fluoranthene	2.8	1.30E-01	3.03E-05	1.10E-05			3.32E-08	1.21E-08	7.3E-01	9E-09
Benzo(k)fluoranthene	2	1.30E-01	3.03E-05	7.88E-06			3.32E-08	8.64E-09	7.3E-02	6E-10
Benzo(g,h,i)perylene	1.5	1.30E-01	3.03E-05	5.91E-06			3.32E-08	6.48E-09		
Benzo(a)pyrene	5.2	1.30E-01	3.03E-05	2.05E-05			3.32E-08	2.25E-08	7.3E+00	2E-07
Chrysene	4.4	1.30E-01	3.03E-05	1.73E-05			3.32E-08	1.90E-08	7.3E-03	1E-10
Dibenzo(a,h)anthracene	0.66	1.30E-01	3.03E-05	2.60E-06			3.32E-08	2.85E-09	7.3E+00	2E-08
Fluoranthene	7.5	1.30E-01	3.03E-05	2.95E-05	4.0E-01	7E-05	3.32E-08	3.24E-08		
Fluorene	0.35	1.30E-01	3.03E-05	1.38E-06	4.0E-01	3E-06	3.32E-08	1.51E-09		
Indeno(1,2,3-cd)pyrene	1.5	1.30E-01	3.03E-05	5.91E-06			3.32E-08	6.48E-09	7.3E-01	5E-09
Naphthalene	3.7	1.30E-01	3.03E-05	1.46E-05	2.0E-02	7E-04	3.32E-08	1.60E-08		
Phenanthrene	1.9	1.30E-01	3.03E-05	7.49E-06			3.32E-08	8.20E-09		
Pyrene	10	1.30E-01	3.03E-05	3.94E-05	3.0E-01	1E-04	3.32E-08	4.32E-08		
Aroclor 1242	0.29	1.40E-01	3.03E-05	1.23E-06			3.32E-08	1.35E-09	2.0E+00	3E-09
Aroclor 1254	0.36	1.40E-01	3.03E-05	1.53E-06	5.0E-05	3E-02	3.32E-08	1.67E-09	2.0E+00	3E-09
Arsenic	23	3.00E-02	3.03E-05	2.09E-05	2.9E-04	7E-02	3.32E-08	2.29E-08	1.6E+00	4E-08
Beryllium*	2.2									
Cadmium	4.1	1.00E-03	3.03E-05	1.24E-07	2.5E-05	5E-03	3.32E-08	1.36E-10		
Chromium*	21									
Copper*	84									
Lead*	360									
Mercury*	1.2									
Nickel*	46									
Selenium*	1.4									
Thallium*	1.8									
Zinc*	1400									
Total Cyanide*	0.8									
			Total Pathway Hazard Index--------->			1E-01	Total Pathway Risk----->			3E-07

DERMAL CONTACT WITH SOIL

CS = Concentration of chemical in soil (mg/kg). See Table 3.

ABS = Absorption Factor - RAGS Part E (USEPA 2004a).

1.00E-06 CF = 0.000001 kg/mg - Conversion Factor

3.30E+03 SA = 3,300 sq cm - Skin Surface Area available for a utility worker, (USEPA 2004a)

1.00E+00 ED = 1 yr - Exposure Duration for a utility worker, (assumed value)

2.00E+01 EF = 20 days/yr - Exposure Frequency for a utility worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

2.80E+01 ATn = 28 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

9.00E-01 AF = 0.9 mg/cm^2 - Soil to Skin Adherence Factor for a utility worker, (USEPA 2004a)

HIF--NONCARCINOGENIC---------> 3.03E-05 HIF = (SA * EF * ED* AF / BW)* CF / (ATn)

HIF--CARCINOGENIC----------> 3.32E-08 HIF = (SA* EF * ED * AF / BW) * CF / (ATc)

DAILY INTAKE = (CS * ABS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

Note:

* BTEX compounds and inorganics except arsenic and cadmium excluded from dermal risk assessment (USEPA 2004a).

Table 13
Inhalation of Chemicals in Fugitive Dust
Reasonable Maximum Exposure (RME)
Post-Remediation Utility Worker
Hawthorne Regulator Station

		Noncarcinogenic Effects					Lifetime Carcinogenic Effects			
Chemicals of Potential Concern	RME Conc (CS) mg/kg	Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation RfC mg/m^3	Inhalation RfD mg/kg-day	Hazard Quotient (HQ) unitless	Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$ or Unit Risk $(ug/m^3)^{-1}$	Inhalation Risk unitless
Acetone	0.35	1.65E-09	5.76E-10				1.80E-12	6.31E-13		
Benzene	0.03	1.65E-09	4.94E-11	3.0E-02	8.6E-03	6E-09	1.80E-12	5.41E-14	2.7E-02	1E-15
2-Butanone	0.17	1.65E-09	2.80E-10	1.0E+00	2.9E-01	1E-09	1.80E-12	3.07E-13		
Carbon Disulfide	0.03	1.65E-09	4.94E-11	7.0E-01	2.0E-01	2E-10	1.80E-12	5.41E-14		
Ethylbenzene	4.7	1.65E-09	7.74E-09	1.0E+00	2.9E-01	3E-08	1.80E-12	8.48E-12		
Styrene	0.036	1.65E-09	5.92E-11	3.0E+00	8.6E-01	7E-11	1.80E-12	6.49E-14		
Toluene (1)	0.019	5.76E-09	1.09E-10	4.0E-01		3E-10	6.31E-12	1.20E-13		
m,p-Xylene	0.12	1.65E-09	1.97E-10	1.0E-01	2.9E-02	7E-09	1.80E-12	2.16E-13		
o-Xylene	2	1.65E-09	3.29E-09	1.0E-01	2.9E-02	1E-07	1.80E-12	3.61E-12		
Bis(2-ethylhexyl)phthalate	2.9	1.65E-09	4.77E-09				1.80E-12	5.23E-12		
Carbazole	0.5	1.65E-09	8.23E-10				1.80E-12	9.02E-13		
Dibenzofuran	0.67	1.65E-09	1.10E-09				1.80E-12	1.21E-12		
2-Methylnaphthalene	2.3	1.65E-09	3.79E-09				1.80E-12	4.15E-12		
Acenaphthene	0.34	1.65E-09	5.60E-10				1.80E-12	6.13E-13		
Acenaphthylene	0.14	1.65E-09	2.30E-10				1.80E-12	2.53E-13		
Anthracene	2	1.65E-09	3.29E-09				1.80E-12	3.61E-12		
Benzo(a)anthracene (1, 2)	4.9	5.76E-09	2.82E-08				6.31E-12	3.09E-11	8.8E-05	3E-12
Benzo(b)fluoranthene (1, 2)	2.8	5.76E-09	1.61E-08				6.31E-12	1.77E-11	8.8E-05	2E-12
Benzo(k)fluoranthene (1, 2)	2	5.76E-09	1.15E-08				6.31E-12	1.26E-11	8.8E-06	1E-13
Benzo(g,h,i)perylene	1.5	1.65E-09	2.47E-09				1.80E-12	2.71E-12		
Benzo(a)pyrene (1, 2)	5.2	5.76E-09	3.00E-08				6.31E-12	3.28E-11	8.8E-04	3E-11
Chrysene (1, 2)	4.4	5.76E-09	2.53E-08				6.31E-12	2.78E-11	8.8E-07	2E-14
Dibenzo(a,h)anthracene (1, 2)	0.66	5.76E-09	3.80E-09				6.31E-12	4.17E-12	8.8E-04	4E-12
Fluoranthene	7.5	1.65E-09	1.23E-08				1.80E-12	1.35E-11		
Fluorene	0.35	1.65E-09	5.76E-10				1.80E-12	6.31E-13		
Indeno(1,2,3-cd)pyrene (1, 2)	1.5	5.76E-09	8.64E-09				6.31E-12	9.47E-12	8.8E-05	8E-13
Naphthalene	3.7	5.76E-09	2.13E-08	3.0E-03		7E-06	6.31E-12	2.34E-11		
Phenanthrene	1.9	1.65E-09	3.13E-09				1.80E-12	3.43E-12		
Pyrene	10	1.65E-09	1.65E-08				1.80E-12	1.80E-11		
Aroclor 1242	0.29	1.65E-09	4.77E-10				1.80E-12	5.23E-13	2.0E+00	1E-12
Aroclor 1254	0.36	1.65E-09	5.92E-10				1.80E-12	6.49E-13	2.0E+00	1E-12
Arsenic (1, 2)	23	5.76E-09	1.32E-07				6.31E-12	1.45E-10	4.3E-03	6E-10
Beryllium (1, 2)	2.2	5.76E-09	1.27E-08	2.0E-05		6E-04	6.31E-12	1.39E-11	2.4E-03	3E-11
Cadmium (1, 2)	4.1	5.76E-09	2.36E-08				6.31E-12	2.59E-11	1.8E-03	5E-11
Chromium (1, 2, 3)	21	5.76E-09	1.21E-07	1.0E-04		1E-03	6.31E-12	1.33E-10	1.2E-02	2E-09
Copper	84	1.65E-09	1.38E-07				1.80E-12	1.52E-10		
Lead	360	1.65E-09	5.92E-07				1.80E-12	6.49E-10		
Mercury	1.2	1.65E-09	1.97E-09	3.0E-04	8.6E-05	2E-05	1.80E-12	2.16E-12		
Nickel	46	1.65E-09	7.57E-08				1.80E-12	8.30E-11		
Selenium	1.4	1.65E-09	2.30E-09				1.80E-12	2.53E-12		
Thallium	1.8	1.65E-09	2.96E-09				1.80E-12	3.25E-12		
Zinc	1400	1.65E-09	2.30E-06				1.80E-12	2.53E-09		
Total Cyanide	0.8	1.65E-09	1.32E-09				1.80E-12	1.44E-12		
			Total pathway Hazard Index-------->			2E-03		Total pathway Risk---->		2E-09

INHALATION DUE TO FUGITIVE DUST

CS = Concentration of chemical in soil (mg/kg). See Table 3.

1.24E+08 PEF = 124,000,000 m^3/kg - Particulate Emission Factor, (IAC 2002)

2.00E+01 IR = 20 m^3/day - Inhalation Rate of soil for a utility worker, (USEPA 1997a)

2.00E+01 EF = 20 days/yr - Exposure Frequency for a utility worker, (assumed value)

1.00E+00 ED = 1 yr - Exposure Duration for a utility worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

2.80E+01 ATn = 28 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

HIF--NONCARCINOGENIC----> 1.65E-09 HIF = (IR * EF * ED) / (BW * PEF * ATn)

HIF--CARCINOGENIC----------> 1.80E-12 HIF = (IR * EF * ED) / (BW * PEF * ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

FOR CARCINOGENIC PAHS, TOLUENE, NAPHTHALENE, BERYLLIUM, CADMIUM AND CHROMIUM:

5.76E-09 HIF = (EF * ED) / (PEF * ATn)

6.31E-12 HIF = (EF * ED) / (PEF * ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfC)

RISK (carcinogenic) = (INTAKE * UR * 1000 ug/mg)

NOTES:

(1) Units for HIF are kg/m^3 and units for Daily Intake are mg/m^3.

(2) Unit Risk (UR) $(ug/m^3)^{-1}$ is used to calculate carcinogenic risk.

(3) Chromium concentration is total chromium, RfC and UR are for chromium VI particulates.

Table 14
Inhalation of Chemicals in Vapor Phase
Reasonable Maximum Exposure (RME)
Post-Remediation Utility Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (Cb) mg/m^3	Noncarcinogenic Effects: Human Intake Factor (HIF) unitless	Daily Intake mg/m^3	Inhalation RfC mg/m^3	Inhalation RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	Inhalation Risk unitless
Acetone	2.12E-08	2.04E-01	4.32E-09				2.24E-04	4.74E-12		
Benzene	1.10E-07	2.04E-01	2.25E-08	3.0E-02	8.6E-03	3E-06	2.24E-04	2.46E-11	2.7E-02	7E-13
2-Butanone	4.97E-09	2.04E-01	1.01E-09	1.0E+00	2.9E-01	4E-09	2.24E-04	1.11E-12		
Carbon Disulfide	5.99E-07	2.04E-01	1.22E-07	7.0E-01	2.0E-01	6E-07	2.24E-04	1.34E-10		
Ethylbenzene	7.37E-06	2.04E-01	1.50E-06	1.0E+00	2.9E-01	5E-06	2.24E-04	1.65E-09		
Styrene	1.01E-08	2.04E-01	2.07E-09	3.0E+00	8.6E-01	2E-09	2.24E-04	2.27E-12		
Toluene (1)	4.73E-08	7.14E-01	3.38E-08	4.0E-01		8E-08	7.83E-04	3.70E-11		
m,p-Xylene	1.78E-07	2.04E-01	3.63E-08	1.0E-01	2.9E-02	1E-06	2.24E-04	3.98E-11		
o-Xylene	2.42E-06	2.04E-01	4.95E-07	1.0E-01	2.9E-02	2E-05	2.24E-04	5.42E-10		
Naphthalene (1)	6.36E-08	7.14E-01	4.54E-08	3.0E-03		2E-05	7.83E-04	4.98E-11		
				Total pathway Hazard Index-------->		4E-05		Total pathway Risk---->		7E-13

INHALATION OF CHEMICALS IN VAPOR PHASE

Cb = Concentration of chemical in air (mg/kg). See Table 6.

2.00E+01 IR = 20 m^3/day - Inhalation Rate of a utility worker, (USEPA 1997a)

2.00E+01 EF = 20 days/yr - Exposure Frequency for a utility worker, (assumed value)

1.00E+00 ED = 1 year - Exposure Duration ffor a utility worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

2.80E+01 ATn = 28 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

HIF--NONCARCINOGENIC---------> 2.04E-01 HIF = (IR * EF * ED) / (BW * ATn)

HIF--CARCINOGENIC----------> 2.24E-04 HIF = (IR * EF * ED) / (BW * ATc)

DAILY INTAKE = (Cb * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

FOR TOLUENE AND NAPHTHALENE:

HIF--NONCARCINOGENIC---------> 7.14E-01 HIF = (EF * ED) / (ATn)

HIF--CARCINOGENIC----------> 7.83E-04 HIF = (EF * ED) / (ATc)

DAILY INTAKE = (Cb * HIF)

HQ (noncarcinogenic) = (INTAKE / RfC)

NOTE:

(1) Units for HIF are kg/m^3 and units for Daily Intake are mg/m^3.

Table 15
Incidental Ingestion of Soil
Central Tendency (CT)
Post-Remediation Utility Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Oral RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	Risk unitless
Acetone	0.35	1.02E-06	3.57E-07	1.00E+00	3.57E-07	5.59E-10	1.96E-10		
Benzene	0.03	1.02E-06	3.06E-08	4.0E-03	8E-06	5.59E-10	1.68E-11	5.5E-02	9E-13
2-Butanone	0.17	1.02E-06	1.73E-07	2.0E+00	9E-08	5.59E-10	9.51E-11		
Carbon Disulfide	0.03	1.02E-06	3.06E-08	1.0E-01	3E-07	5.59E-10	1.68E-11		
Ethylbenzene	4.7	1.02E-06	4.80E-06	1.0E-01	5E-05	5.59E-10	2.63E-09		
Styrene	0.036	1.02E-06	3.67E-08	2.0E-01	2E-07	5.59E-10	2.01E-11		
Toluene	0.019	1.02E-06	1.94E-08	2.0E+00	1E-08	5.59E-10	1.06E-11		
m,p-Xylene	0.12	1.02E-06	1.22E-07	2.0E-01	6E-07	5.59E-10	6.71E-11		
o-Xylene	2	1.02E-06	2.04E-06	2.0E-01	1E-05	5.59E-10	1.12E-09		
Bis(2-ethylhexyl)phthalate	2.9	1.02E-06	2.96E-06	2.0E-02	1E-04	5.59E-10	1.62E-09	1.4E-02	2E-11
Carbazole	0.5	1.02E-06	5.10E-07			5.59E-10	2.80E-10	2.0E-02	6E-12
Dibenzofuran	0.67	1.02E-06	6.84E-07			5.59E-10	3.75E-10		
2-Methylnaphthalene	2.3	1.02E-06	2.35E-06	4.0E-03	6E-04	5.59E-10	1.29E-09		
Acenaphthene	0.34	1.02E-06	3.47E-07	6.0E-01	6E-07	5.59E-10	1.90E-10		
Acenaphthylene	0.14	1.02E-06	1.43E-07			5.59E-10	7.83E-11		
Anthracene	2	1.02E-06	2.04E-06	3.0E+00	7E-07	5.59E-10	1.12E-09		
Benzo(a)anthracene	4.9	1.02E-06	5.00E-06			5.59E-10	2.74E-09	7.3E-01	2E-09
Benzo(b)fluoranthene	2.8	1.02E-06	2.86E-06			5.59E-10	1.57E-09	7.3E-01	1E-09
Benzo(k)fluoranthene	2	1.02E-06	2.04E-06			5.59E-10	1.12E-09	7.3E-02	8E-11
Benzo(g,h,i)perylene	1.5	1.02E-06	1.53E-06			5.59E-10	8.39E-10		
Benzo(a)pyrene	5.2	1.02E-06	5.31E-06			5.59E-10	2.91E-09	7.3E+00	2E-08
Chrysene	4.4	1.02E-06	4.49E-06			5.59E-10	2.46E-09	7.3E-03	2E-11
Dibenzo(a,h)anthracene	0.66	1.02E-06	6.73E-07			5.59E-10	3.69E-10	7.3E+00	3E-09
Fluoranthene	7.5	1.02E-06	7.65E-06	4.0E-01	2E-05	5.59E-10	4.19E-09		
Fluorene	0.35	1.02E-06	3.57E-07	4.0E-01	9E-07	5.59E-10	1.96E-10		
Indeno(1,2,3-cd)pyrene	1.5	1.02E-06	1.53E-06			5.59E-10	8.39E-10	7.3E-01	6E-10
Naphthalene	3.7	1.02E-06	3.78E-06	2.0E-02	2E-04	5.59E-10	2.07E-09		
Phenanthrene	1.9	1.02E-06	1.94E-06			5.59E-10	1.06E-09		
Pyrene	10	1.02E-06	1.02E-05	3.0E-01	3E-05	5.59E-10	5.59E-09		
Aroclor 1242	0.29	1.02E-06	2.96E-07			5.59E-10	1.62E-10	2.0E+00	3E-10
Aroclor 1254	0.36	1.02E-06	3.67E-07	5.0E-05	7E-03	5.59E-10	2.01E-10	2.0E+00	4E-10
Arsenic	23	1.02E-06	2.35E-05	3.0E-04	8E-02	5.59E-10	1.29E-08	1.5E+00	2E-08
Beryllium	2.2	1.02E-06	2.24E-06	5.0E-03	4E-04	5.59E-10	1.23E-09		
Cadmium	4.1	1.02E-06	4.18E-06	1.0E-03	4E-03	5.59E-10	2.29E-09		
Chromium*	21	1.02E-06	2.14E-05	2.0E-02	1E-03	5.59E-10	1.17E-08		
Copper	84	1.02E-06	8.57E-05	4.0E-02	2E-03	5.59E-10	4.70E-08		
Lead	360	1.02E-06	3.67E-04			5.59E-10	2.01E-07		
Mercury	1.2	1.02E-06	1.22E-06			5.59E-10	6.71E-10		
Nickel	46	1.02E-06	4.69E-05	2.0E-02	2E-03	5.59E-10	2.57E-08		
Selenium	1.4	1.02E-06	1.43E-06	5.0E-03	3E-04	5.59E-10	7.83E-10		
Thallium	1.8	1.02E-06	1.84E-06			5.59E-10	1.01E-09		
Zinc	1400	1.02E-06	1.43E-03	3.0E-01	5E-03	5.59E-10	7.83E-07		
Total Cyanide	0.8	1.02E-06	8.16E-07	2.0E-02	4E-05	5.59E-10	4.47E-10		
		Total Pathway Hazard Index--------->			1E-01	Total Pathway Risk----->			5E-08

INCIDENTAL INGESTION OF SOIL

CS = Concentration of chemical in soil (mg/kg). See Table 3.

1.00E-06 CF = 0.000001 kg/mg - Conversion Factor

1.00E+02 IR = 100 mg/day - Ingestion Rate of soil for a utility worker, (USEPA 1997a)

1.00E+00 ED = 1 yr - Exposure Duration for a utility worker, (assumed value)

1.00E+01 EF = 10 days/yr - Exposure Frequency for a utility worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

1.40E+01 ATn = 14 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

1.00E+00 FI = 1 - Fraction Ingested, (USEPA 1989)

HIF--NONCARCINOGENIC----------> 1.02E-06 HIF = (IR * EF * ED * FI / BW) *CF / (ATn)

HIF--CARCINOGENIC----------> 5.59E-10 HIF = (IR * EF * ED * FI/ BW) *CF / (ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

* Chromium concentration is total chromium, RfD is for chromium VI particulates.

Table 16
Dermal Contact with Soil
Central Tendency (CT)
Post-Remediation Utility Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Absorption Factor (ABS) unitless	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Adjusted Dermal RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Adjusted Dermal Slope Factor $(mg/kg\text{-}day)^{-1}$	Risk unitless
Acetone*	0.35									
Benzene*	0.03									
2-Butanone*	0.17									
Carbon Disulfide*	0.03									
Ethylbenzene*	4.7									
Styrene*	0.036									
Toluene*	0.019									
m,p-Xylene*	0.12									
o-Xylene*	2									
Bis(2-ethylhexyl)phthalate	2.9	1.00E-01	6.73E-06	1.95E-06	2.0E-02	1E-04	3.69E-09	1.07E-09	1.4E-02	1E-11
Carbazole	0.5	1.00E-01	6.73E-06	3.37E-07			3.69E-09	1.85E-10	2.0E-02	4E-12
Dibenzofuran	0.67	1.00E-01	6.73E-06	4.51E-07			3.69E-09	2.47E-10		
2-Methylnaphthalene	2.3	1.30E-01	6.73E-06	2.01E-06	4.0E-03	5E-04	3.69E-09	1.10E-09		
Acenaphthene	0.34	1.30E-01	6.73E-06	2.98E-07	6.0E-01	5E-07	3.69E-09	1.63E-10		
Acenaphthylene	0.14	1.30E-01	6.73E-06	1.23E-07			3.69E-09	6.72E-11		
Anthracene	2	1.30E-01	6.73E-06	1.75E-06	3.0E+00	6E-07	3.69E-09	9.59E-10		
Benzo(a)anthracene	4.9	1.30E-01	6.73E-06	4.29E-06			3.69E-09	2.35E-09	7.3E-01	2E-09
Benzo(b)fluoranthene	2.8	1.30E-01	6.73E-06	2.45E-06			3.69E-09	1.34E-09	7.3E-01	1E-09
Benzo(k)fluoranthene	2	1.30E-01	6.73E-06	1.75E-06			3.69E-09	9.59E-10	7.3E-02	7E-11
Benzo(g,h,i)perylene	1.5	1.30E-01	6.73E-06	1.31E-06			3.69E-09	7.20E-10		
Benzo(a)pyrene	5.2	1.30E-01	6.73E-06	4.55E-06			3.69E-09	2.49E-09	7.3E+00	2E-08
Chrysene	4.4	1.30E-01	6.73E-06	3.85E-06			3.69E-09	2.11E-09	7.3E-03	2E-11
Dibenzo(a,h)anthracene	0.66	1.30E-01	6.73E-06	5.78E-07			3.69E-09	3.17E-10	7.3E+00	2E-09
Fluoranthene	7.5	1.30E-01	6.73E-06	6.57E-06	4.0E-01	2E-05	3.69E-09	3.60E-09		
Fluorene	0.35	1.30E-01	6.73E-06	3.06E-07	4.0E-01	8E-07	3.69E-09	1.68E-10		
Indeno(1,2,3-cd)pyrene	1.5	1.30E-01	6.73E-06	1.31E-06			3.69E-09	7.20E-10	7.3E-01	5E-10
Naphthalene	3.7	1.30E-01	6.73E-06	3.24E-06	2.0E-02	2E-04	3.69E-09	1.78E-09		
Phenanthrene	1.9	1.30E-01	6.73E-06	1.66E-06			3.69E-09	9.11E-10		
Pyrene	10	1.30E-01	6.73E-06	8.76E-06	3.0E-01	3E-05	3.69E-09	4.80E-09		
Aroclor 1242	0.29	1.40E-01	6.73E-06	2.73E-07			3.69E-09	1.50E-10	2.0E+00	3E-10
Aroclor 1254	0.36	1.40E-01	6.73E-06	3.39E-07	5.0E-05	7E-03	3.69E-09	1.86E-10	2.0E+00	4E-10
Arsenic	23	3.00E-02	6.73E-06	4.65E-06	2.9E-04	2E-02	3.69E-09	2.55E-09	1.6E+00	4E-09
Beryllium*	2.2									
Cadmium	4.1	1.00E-03	6.73E-06	2.76E-08	2.5E-05	1E-03	3.69E-09	1.51E-11		
Chromium*	21									
Copper*	84									
Lead*	360									
Mercury*	1.2									
Nickel*	46									
Selenium*	1.4									
Thallium*	1.8									
Zinc*	1400									
Total Cyanide*	0.8									
			Total Pathway Hazard Index--------->			3E-02	Total Pathway Risk----->			3E-08

DERMAL CONTACT WITH SOIL
CS = Concentration of chemical in soil (mg/kg). See Table 3.
ABS = Absorption Factor - RAGS Part E (USEPA 2004a).
1.00E-06 CF = 0.000001 kg/mg - Conversion Factor
3.30E+03 SA = 3,300 sq cm - Skin Surface Area available for a utility worker, (USEPA 2004a)
1.00E+00 ED = 1 yr - Exposure Duration for a utility worker, (assumed value)
1.00E+01 EF = 10 days/yr - Exposure Frequency for a utility worker, (assumed value)
7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)
1.40E+01 ATn = 14 days - Averaging Time for noncarcinogenic compounds, (assumed value)
2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)
2.00E-01 AF = 0.2 mg/cm^2 - Soil to Skin Adherence Factor for a utility worker, (USEPA 2004a)
HIF--NONCARCINOGENIC----------> 6.73E-06 HIF = (SA * EF * ED * AF / BW) * CF / (ATn)
HIF--CARCINOGENIC----------> 3.69E-09 HIF = (SA * EF * ED * AF / BW) * CF / (ATc)
DAILY INTAKE = (CS * ABS * HIF)
HQ (noncarcinogenic) = (INTAKE / RfD)
RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

Note:
* BTEX compounds and inorganics except arsenic and cadmium excluded from dermal risk assessment (USEPA 2004a).

Table 17
Inhalation of Chemicals in Fugitive Dust
Central Tendency (CT)
Post-Remediation Utility Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation RfC mg/m^3	Inhalation RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$ or Unit Risk $(ug/m^3)^{-1}$	Inhalation Risk unitless
Acetone	0.35	9.87E-10	3.46E-10				5.41E-13	1.89E-13		
Benzene	0.03	9.87E-10	2.96E-11	3.0E-02	8.6E-03	3E-09	5.41E-13	1.62E-14	2.7E-02	4E-16
2-Butanone	0.17	9.87E-10	1.68E-10	1.0E+00	2.9E-01	6E-10	5.41E-13	9.20E-14		
Carbon Disulfide	0.03	9.87E-10	2.96E-11	7.0E-01	2.0E-01	1E-10	5.41E-13	1.62E-14		
Ethylbenzene	4.7	9.87E-10	4.64E-09	1.0E+00	2.9E-01	2E-08	5.41E-13	2.54E-12		
Styrene	0.036	9.87E-10	3.55E-11	3.0E+00	8.6E-01	4E-11	5.41E-13	1.95E-14		
Toluene (1)	0.019	5.76E-09	1.09E-10	4.0E-01		3E-10	3.16E-12	6.00E-14		
m,p-Xylene	0.12	9.87E-10	1.18E-10	1.0E-01	2.9E-02	4E-09	5.41E-13	6.49E-14		
o-Xylene	2	9.87E-10	1.97E-09	1.0E-01	2.9E-02	7E-08	5.41E-13	1.08E-12		
Bis(2-ethylhexyl)phthalate	2.9	9.87E-10	2.86E-09				5.41E-13	1.57E-12		
Carbazole	0.5	9.87E-10	4.94E-10				5.41E-13	2.71E-13		
Dibenzofuran	0.67	9.87E-10	6.62E-10				5.41E-13	3.63E-13		
2-Methylnaphthalene	2.3	9.87E-10	2.27E-09				5.41E-13	1.24E-12		
Acenaphthene	0.34	9.87E-10	3.36E-10				5.41E-13	1.84E-13		
Acenaphthylene	0.14	9.87E-10	1.38E-10				5.41E-13	7.58E-14		
Anthracene	2	9.87E-10	1.97E-09				5.41E-13	1.08E-12		
Benzo(a)anthracene (1, 2)	4.9	5.76E-09	2.82E-08				3.16E-12	1.55E-11	8.8E-05	1E-12
Benzo(b)fluoranthene (1, 2)	2.8	5.76E-09	1.61E-08				3.16E-12	8.84E-12	8.8E-05	8E-13
Benzo(k)fluoranthene (1, 2)	2	5.76E-09	1.15E-08				3.16E-12	6.31E-12	8.8E-06	6E-14
Benzo(g,h,i)perylene	1.5	9.87E-10	1.48E-09				5.41E-13	8.12E-13		
Benzo(a)pyrene (1, 2)	5.2	5.76E-09	3.00E-08				3.16E-12	1.64E-11	8.8E-04	1E-11
Chrysene (1, 2)	4.4	5.76E-09	2.53E-08				3.16E-12	1.39E-11	8.8E-07	1E-14
Dibenzo(a,h)anthracene (1, 2)	0.66	5.76E-09	3.80E-09				3.16E-12	2.08E-12	8.8E-04	2E-12
Fluoranthene	7.5	9.87E-10	7.41E-09				5.41E-13	4.06E-12		
Fluorene	0.35	9.87E-10	3.46E-10				5.41E-13	1.89E-13		
Indeno(1,2,3-cd)pyrene (1, 2)	1.5	5.76E-09	8.64E-09				3.16E-12	4.73E-12	8.8E-05	4E-13
Naphthalene	3.7	5.76E-09	2.13E-08	3.0E-03		7E-06	3.16E-12	1.17E-11		
Phenanthrene	1.9	9.87E-10	1.88E-09				5.41E-13	1.03E-12		
Pyrene	10	9.87E-10	9.87E-09				5.41E-13	5.41E-12		
Aroclor 1242	0.29	9.87E-10	2.86E-10				5.41E-13	1.57E-13	2.0E+00	3E-13
Aroclor 1254	0.36	9.87E-10	3.55E-10				5.41E-13	1.95E-13	2.0E+00	4E-13
Arsenic (1, 2)	23	5.76E-09	1.32E-07				3.16E-12	7.26E-11	4.3E-03	3E-10
Beryllium (1, 2)	2.2	5.76E-09	1.27E-08	2.0E-05		6E-04	3.16E-12	6.94E-12	2.4E-03	2E-11
Cadmium (1, 2)	4.1	5.76E-09	2.36E-08				3.16E-12	1.29E-11	1.8E-03	2E-11
Chromium (1, 2, 3)	21	5.76E-09	1.21E-07	1.0E-04		1E-03	3.16E-12	6.63E-11	1.2E-02	8E-10
Copper	84	9.87E-10	8.29E-08				5.41E-13	4.55E-11		
Lead	360	9.87E-10	3.55E-07				5.41E-13	1.95E-10		
Mercury	1.2	9.87E-10	1.18E-09	3.0E-04	8.6E-05	1E-05	5.41E-13	6.49E-13		
Nickel	46	9.87E-10	4.54E-08				5.41E-13	2.49E-11		
Selenium	1.4	9.87E-10	1.38E-09				5.41E-13	7.58E-13		
Thallium	1.8	9.87E-10	1.78E-09				5.41E-13	9.74E-13		
Zinc	1400	9.87E-10	1.38E-06				5.41E-13	7.58E-10		
Total Cyanide	0.8	9.87E-10	7.90E-10				5.41E-13	4.33E-13		
			Total pathway Hazard Index-------->			2E-03		Total pathway Risk---->		1E-09

INHALATION DUE TO FUGITIVE DUST

CS = Concentration of chemical in soil (mg/kg). See Table 3.

1.24E+08 PEF = 124,000,000 m^3/kg - Particulate Emission Factor, (IAC 2002)

1.20E+01 IR = 12 m^3/day - Inhalation Rate of soil for a utility worker, (USEPA 1997a)

1.00E+01 EF = 10 days/yr - Exposure Frequency for a utility worker, (assumed value)

1.00E+00 ED = 1 yr - Exposure Duration for a utility worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

1.40E+01 ATn = 14 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

HIF--NONCARCINOGENIC------> 9.87E-10 HIF = (IR * EF * ED) / (BW * PEF * ATn)

HIF--CARCINOGENIC----------> 5.41E-13 HIF = (IR * EF * ED) / (BW * PEF * ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

FOR CARCINOGENIC PAHS, TOLUENE, NAPHTHALENE, BERYLLIUM, CADMIUM AND CHROMIUM:

5.76E-09 HIF = (EF * ED) / (PEF * ATn)

3.16E-12 HIF = (EF * ED) / (PEF * ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfC)

RISK (carcinogenic) = (INTAKE * UR * 1000 ug/mg)

NOTES:

(1) Units for HIF are kg/m^3 and units for Daily Intake are mg/m^3.

(2) Unit Risk (UR) $(ug/m^3)^{-1}$ is used to calculate carcinogenic risk.

(3) Chromium concentration is total chromium, RfC and UR are for chromium VI particulates.

Table 18
Inhalation of Chemicals in Vapor Phase
Central Tendency (CT)
Post-Remediation Utility Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (Cb) mg/m^3	Noncarcinogenic Effects: Human Intake Factor (HIF) unitless	Daily Intake mg/m^3	Inhalation RfC mg/m^3	Inhalation RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	Inhalation Risk unitless
Acetone	2.12E-08	1.22E-01	2.59E-09				6.71E-05	1.42E-12		
Benzene	1.10E-07	1.22E-01	1.35E-08	3.0E-02	8.6E-03	2E-06	6.71E-05	7.39E-12	2.7E-02	2E-13
2-Butanone	4.97E-09	1.22E-01	6.09E-10	1.0E+00	2.9E-01	2E-09	6.71E-05	3.34E-13		
Carbon Disulfide	5.99E-07	1.22E-01	7.34E-08	7.0E-01	2.0E-01	4E-07	6.71E-05	4.02E-11		
Ethylbenzene	7.37E-06	1.22E-01	9.03E-07	1.0E+00	2.9E-01	3E-06	6.71E-05	4.95E-10		
Styrene	1.01E-08	1.22E-01	1.24E-09	3.0E+00	8.6E-01	1E-09	6.71E-05	6.80E-13		
Toluene (1)	4.73E-08	7.14E-01	3.38E-08	4.0E-01		8E-08	3.91E-04	1.85E-11		
m,p-Xylene	1.78E-07	1.22E-01	2.18E-08	1.0E-01	2.9E-02	8E-07	6.71E-05	1.19E-11		
o-Xylene	2.42E-06	1.22E-01	2.97E-07	1.0E-01	2.9E-02	1E-05	6.71E-05	1.63E-10		
Naphthalene (1)	6.36E-08	7.14E-01	4.54E-08	3.0E-03		2E-05	3.91E-04	2.49E-11		
			Total pathway Hazard Index-------->			3E-05		Total pathway Risk---->		2E-13

INHALATION OF CHEMICALS IN VAPOR PHASE

Cb = Concentration of chemical in air (mg/kg). See Table 6.

1.20E+01 IR = 12 m^3/day - Inhalation Rate of a utility worker, (USEPA 1997a)

1.00E+01 EF = 10 days/yr - Exposure Frequency for a utility worker, (assumed value)

1.00E+00 ED = 1 year - Exposure Duration for a utility worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

1.40E+01 ATn = 14 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

HIF--NONCARCINOGENIC---------> 1.22E-01 HIF = (IR * EF * ED) / (BW * ATn)

HIF--CARCINOGENIC----------> 6.71E-05 HIF = (IR * EF * ED) / (BW * ATc)

DAILY INTAKE = (Cb * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

FOR TOLUENE AND NAPHTHALENE:

HIF--NONCARCINOGENIC---------> 7.14E-01 HIF = (EF * ED) / (ATn)

HIF--CARCINOGENIC----------> 3.91E-04 HIF = (EF * ED) / (ATc)

DAILY INTAKE = (Cb * HIF)

HQ (noncarcinogenic) = (INTAKE / RfC)

NOTE:

(1) Units for HIF are kg/m^3 and units for Daily Intake are mg/m^3.

Table 19
Values Used For Daily Intake Calculations
Post-Remediation Construction Worker
Hawthorne Regulator Station

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Subsurface Soil
Exposure Point: Subsurface Soil
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation
Ingestion	CS	Chemical Concentration in Soil	mg/kg	See Table 3	See Table 3	See Table 3	See Table 3	DI (mg/kg-day) =
	IR	Ingestion Rate of Soil	mg/day	330	USEPA 2002	100	USEPA 1997a	CS x IR x EF x ED x FI x CF x 1/BW x 1/AT
	FI	Fraction Ingested	- -	1	USEPA 1989	1	USEPA 1989	
	EF	Exposure Frequency	days/year	250	(1)	125	(1)	
	ED	Exposure Duration	years	1	(1)	1	(1)	
	CF	Conversion Factor (mg to kg)	kg/mg	1E-06	- -	1E-06	- -	
	BW	Body Weight	kg	70	USEPA 1991	70	USEPA 1991	
	ATc	Averaging Time (Cancer)	days	25,550	USEPA 1991	25,550	USEPA 1991	
	ATn	Averaging Time (Non-Cancer)	days	350	USEPA 1991	175	USEPA 1991	
Dermal	CS	Chemical Concentration in Soil	mg/kg	See Table 3	See Table 3	See Table 3	See Table 3	DI (mg/kg-day) =
	CF	Conversion Factor (mg to kg)	kg/mg	1E-06	--	1E-06	--	CS x SA x CF x AF x ABS x EF x ED x 1/BW x 1/AT
	AF	Soil to Skin Adherence Factor	mg/cm^2	0.3	USEPA 2004a	0.1	USEPA 2004a	
	ABS	Absorption Factor	- -	Chemical Specific See Table 21	USEPA 2004a	Chemical Specific See Table 25	USEPA 2004a	
	SA	Skin Surface Area Available for Contact	cm^2	3,300	USEPA 2004a	3,300	USEPA 2004a	
	EF	Exposure Frequency	days/years	250	(1)	125	(1)	
	ED	Exposure Duration	years	1	(1)	1	(1)	
	BW	Body Weight	kg	70	USEPA 1991	70	USEPA 1991	
	ATc	Averaging Time (Cancer)	days	25,550	USEPA 1991	25,550	USEPA 1991	
	ATn	Averaging Time (Non-Cancer)	days	350	USEPA 1991	175	USEPA 1991	

NOTES:

(1) Values assumed to represent an average redevelopment construction project. Work to be completed within 1 year. EF: RME = 12 months, 5 days/week CT = 6 months, 5 days/week. ATn: RME = 12 months, 7 days/week CT = 6 months, 7 days/week.

SOURCES:

USEPA 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part A). Interim Final. EPA/540/1-89/002, December.

USEPA 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03, March 15.

USEPA 1997a: Exposure Factors Handbook: Volume I - General Factors, August.

USEPA 2002: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER Directive 9355.4-24, December.

USEPA 2004a: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual Part E - Supplemental Guidance for Dermal Risk Assessment, Interim Review Draft. OSWER Directive 9285.7-02EP, July.

Table 19 (Continued)
Values Used For Chronic Daily Intake Calculations
Post-Remediation Construction Worker
Hawthorne Regulator Station

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Subsurface Soil
Exposure Point: Subsurface Soil
Receptor Population: Construction Worker
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference	CT Value	CT Rationale/ Reference	Intake Equation
Inhalation of Fugitive Dust	CS	COPC Concentration in Soil	mg/kg	See Table 3	See Table 3	See Table 3	See Table 3	DI (mg/kg-day) =
	IR	Inhalation Rate	m^3/day	20	(1)	12	(1)	CS x IR x EF x ED/BW x AT x PEF
	PEF	Particulate Emission Factor	m^3/kg	1.24E+08	IAC 2002	1.24E+08	IAC 2002	
	EF	Exposure Frequency	days/year	250	(2)	125	(2)	DI for use with RfC/UR (mg/m^3) =
	ED	Exposure Duration	years	1	(2)	1	(2)	CS x EF x ED/AT x PEF
	BW	Body Weight	kg	70	USEPA 1991	70	USEPA 1991	
	ATc	Averaging Time (Cancer)	days	25,550	USEPA 1991	25,550	USEPA 1991	
	ATn	Averaging Time (Non-Cancer)	days	350	USEPA 1991	175	USEPA 1991	
Inhalation of Vapor Phase COPCS	Cb	COPC Concentration in Air	mg/m^3	See Table 8	See Tables 4, 7-8	See Table 8	See Tables 4, 7-8	DI (mg/kg-day) =
	IR	Inhalation Rate	m^3/day	20	(1)	12	(1)	Cb x IR x EF x ED/BW x AT
	EF	Exposure Frequency	days/year	250	(2)	125	(2)	
	ED	Exposure Duration	years	1	(2)	1	(2)	DI for use with RfC (mg/m^3) =
	BW	Body Weight	kg	70	USEPA 1991	70	USEPA 1991	Cb x EF x ED/AT
	ATc	Averaging Time (Cancer)	days	25,550	USEPA 1991	25,550	USEPA 1991	
	ATn	Averaging Time (Non-Cancer)	days	350	USEPA 1991	175	USEPA 1991	

NOTES:

(1) Assumes 8 hours a day of heavy activity (2.5 m^3/hr) for the RME value and 8 hours of moderate activity (1.5 m^3/hr) for the CT value (USEPA 1997a).

(2) Values assumed to represent an average redevelopment construction project. Work to be completed within 1 year. EF: RME = 12 months, 5 days/week CT = 6 months, 5 days/week. ATn: RME = 12 months, 7 days/week CT = 6 months, 7 days/week.

SOURCES:

Illinois Administrative Code (IAC), 2002: Title 35: Environmental Protection, Subtitle G, Chapter I, Pollution Control Board, Subchapter f, Part 742: Tiered Approach to Corrective Action Objectives (TACO), Appendix C, Table B, February.

USEPA 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03, March 15.

USEPA 1997a: Exposure Factors Handbook: Volume 1 - General Factors, August.

Table 20
Incidental Ingestion of Soil
Reasonable Maximum Exposure (RME)
Post-Remediation Construction Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Oral RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	Risk unitless
Acetone	0.35	3.37E-06	1.18E-06	1.00E+00	1.18E-06	4.61E-08	1.61E-08		
Benzene	0.03	3.37E-06	1.01E-07	4.0E-03	3E-05	4.61E-08	1.38E-09	5.5E-02	8E-11
2-Butanone	0.17	3.37E-06	5.72E-07	2.0E+00	3E-07	4.61E-08	7.84E-09		
Carbon Disulfide	0.03	3.37E-06	1.01E-07	1.0E-01	1E-06	4.61E-08	1.38E-09		
Ethylbenzene	4.7	3.37E-06	1.58E-05	1.0E-01	2E-04	4.61E-08	2.17E-07		
Styrene	0.036	3.37E-06	1.21E-07	2.0E-01	6E-07	4.61E-08	1.66E-09		
Toluene	0.019	3.37E-06	6.40E-08	2.0E+00	3E-08	4.61E-08	8.76E-10		
m,p-Xylene	0.12	3.37E-06	4.04E-07	2.0E-01	2E-06	4.61E-08	5.54E-09		
o-Xylene	2	3.37E-06	6.73E-06	2.0E-01	3E-05	4.61E-08	9.23E-08		
Bis(2-ethylhexyl)phthalate	2.9	3.37E-06	9.77E-06	2.0E-02	5E-04	4.61E-08	1.34E-07	1.4E-02	2E-09
Carbazole	0.5	3.37E-06	1.68E-06			4.61E-08	2.31E-08	2.0E-02	5E-10
Dibenzofuran	0.67	3.37E-06	2.26E-06			4.61E-08	3.09E-08		
2-Methylnaphthalene	2.3	3.37E-06	7.74E-06	4.0E-03	2E-03	4.61E-08	1.06E-07		
Acenaphthene	0.34	3.37E-06	1.14E-06	6.0E-01	2E-06	4.61E-08	1.57E-08		
Acenaphthylene	0.14	3.37E-06	4.71E-07			4.61E-08	6.46E-09		
Anthracene	2	3.37E-06	6.73E-06	3.0E+00	2E-06	4.61E-08	9.23E-08		
Benzo(a)anthracene	4.9	3.37E-06	1.65E-05			4.61E-08	2.26E-07	7.3E-01	2E-07
Benzo(b)fluoranthene	2.8	3.37E-06	9.43E-06			4.61E-08	1.29E-07	7.3E-01	9E-08
Benzo(k)fluoranthene	2	3.37E-06	6.73E-06			4.61E-08	9.23E-08	7.3E-02	7E-09
Benzo(g,h,i)perylene	1.5	3.37E-06	5.05E-06			4.61E-08	6.92E-08		
Benzo(a)pyrene	5.2	3.37E-06	1.75E-05			4.61E-08	2.40E-07	7.3E+00	2E-06
Chrysene	4.4	3.37E-06	1.48E-05			4.61E-08	2.03E-07	7.3E-03	1E-09
Dibenzo(a,h)anthracene	0.66	3.37E-06	2.22E-06			4.61E-08	3.04E-08	7.3E+00	2E-07
Fluoranthene	7.5	3.37E-06	2.53E-05	4.0E-01	6E-05	4.61E-08	3.46E-07		
Fluorene	0.35	3.37E-06	1.18E-06	4.0E-01	3E-06	4.61E-08	1.61E-08		
Indeno(1,2,3-cd)pyrene	1.5	3.37E-06	5.05E-06			4.61E-08	6.92E-08	7.3E-01	5E-08
Naphthalene	3.7	3.37E-06	1.25E-05	2.0E-02	6E-04	4.61E-08	1.71E-07		
Phenanthrene	1.9	3.37E-06	6.40E-06			4.61E-08	8.76E-08		
Pyrene	10	3.37E-06	3.37E-05	3.0E-01	1E-04	4.61E-08	4.61E-07		
Aroclor 1242	0.29	3.37E-06	9.77E-07			4.61E-08	1.34E-08	2.0E+00	3E-08
Aroclor 1254	0.36	3.37E-06	1.21E-06	5.0E-05	2E-02	4.61E-08	1.66E-08	2.0E+00	3E-08
Arsenic	23	3.37E-06	7.74E-05	3.0E-04	3E-01	4.61E-08	1.06E-06	1.5E+00	2E-06
Beryllium	2.2	3.37E-06	7.41E-06	5.0E-03	1E-03	4.61E-08	1.01E-07		
Cadmium	4.1	3.37E-06	1.38E-05	1.0E-03	1E-02	4.61E-08	1.89E-07		
Chromium*	21	3.37E-06	7.07E-05	2.0E-02	4E-03	4.61E-08	9.69E-07		
Copper	84	3.37E-06	2.83E-04	4.0E-02	7E-03	4.61E-08	3.87E-06		
Lead	360	3.37E-06	1.21E-03			4.61E-08	1.66E-05		
Mercury	1.2	3.37E-06	4.04E-06			4.61E-08	5.54E-08		
Nickel	46	3.37E-06	1.55E-04	2.0E-02	8E-03	4.61E-08	2.12E-06		
Selenium	1.4	3.37E-06	4.71E-06	5.0E-03	9E-04	4.61E-08	6.46E-08		
Thallium	1.8	3.37E-06	6.06E-06			4.61E-08	8.30E-08		
Zinc	1400	3.37E-06	4.71E-03	3.0E-01	2E-02	4.61E-08	6.46E-05		
Total Cyanide	0.8	3.37E-06	2.69E-06	2.0E-02	1E-04	4.61E-08	3.69E-08		
		Total Pathway Hazard Index--------->			3E-01	Total Pathway Risk----->			4E-06

INCIDENTAL INGESTION OF SOIL

CS = Concentration of chemical in soil (mg/kg). See Table 3.

1.00E-06 CF = 0.000001 kg/mg - Conversion Factor

3.30E+02 IR = 330 mg/day - Ingestion Rate of soil by a construction worker, (USEPA 2002)

1.00E+00 ED = 1 yr - Exposure Duration for a construction worker, (assumed value)

2.50E+02 EF = 250 days/yr - Exposure Frequency for a construction worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

3.50E+02 ATn = 350 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

1.00E+00 FI = 1 - Fraction Ingested, (USEPA 1989)

HIF--NONCARCINOGENIC----------> 3.37E-06 HIF = (IR * EF * ED * FI / BW) * CF / (ATn)

HIF--CARCINOGENIC----------> 4.61E-08 HIF = (IR * EF * ED * FI / BW) * CF / (ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

* Chromium concentration is total chromium, RfD is for chromium VI particulates.

Table 21
Dermal Contact with Soil
Reasonable Maximum Exposure (RME)
Post-Remediation Construction Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Absorption Factor (ABS) unitless	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Adjusted Dermal RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Adjusted Dermal Slope Factor $(mg/kg\text{-}day)^{-1}$	Risk unitless
Acetone*	0.35									
Benzene*	0.03									
2-Butanone*	0.17									
Carbon Disulfide*	0.03									
Ethylbenzene*	4.7									
Styrene*	0.036									
Toluene*	0.019									
m,p-Xylene*	0.12									
o-Xylene*	2									
Bis(2-ethylhexyl)phthalate	2.9	1.00E-01	1.01E-05	2.93E-06	2.0E-02	1E-04	1.38E-07	4.01E-08	1.4E-02	6E-10
Carbazole	0.5	1.00E-01	1.01E-05	5.05E-07			1.38E-07	6.92E-09	2.0E-02	1E-10
Dibenzofuran	0.67	1.00E-01	1.01E-05	6.77E-07			1.38E-07	9.27E-09		
2-Methylnaphthalene	2.3	1.30E-01	1.01E-05	3.02E-06	4.0E-03	8E-04	1.38E-07	4.14E-08		
Acenaphthene	0.34	1.30E-01	1.01E-05	4.47E-07	6.0E-01	7E-07	1.38E-07	6.12E-09		
Acenaphthylene	0.14	1.30E-01	1.01E-05	1.84E-07			1.38E-07	2.52E-09		
Anthracene	2	1.30E-01	1.01E-05	2.63E-06	3.0E+00	9E-07	1.38E-07	3.60E-08		
Benzo(a)anthracene	4.9	1.30E-01	1.01E-05	6.44E-06			1.38E-07	8.82E-08	7.3E-01	6E-08
Benzo(b)fluoranthene	2.8	1.30E-01	1.01E-05	3.68E-06			1.38E-07	5.04E-08	7.3E-01	4E-08
Benzo(k)fluoranthene	2	1.30E-01	1.01E-05	2.63E-06			1.38E-07	3.60E-08	7.3E-02	3E-09
Benzo(g,h,i)perylene	1.5	1.30E-01	1.01E-05	1.97E-06			1.38E-07	2.70E-08		
Benzo(a)pyrene	5.2	1.30E-01	1.01E-05	6.83E-06			1.38E-07	9.35E-08	7.3E+00	7E-07
Chrysene	4.4	1.30E-01	1.01E-05	5.78E-06			1.38E-07	7.92E-08	7.3E-03	6E-10
Dibenzo(a,h)anthracene	0.66	1.30E-01	1.01E-05	8.67E-07			1.38E-07	1.19E-08	7.3E+00	9E-08
Fluoranthene	7.5	1.30E-01	1.01E-05	9.85E-06	4.0E-01	2E-05	1.38E-07	1.35E-07		
Fluorene	0.35	1.30E-01	1.01E-05	4.60E-07	4.0E-01	1E-06	1.38E-07	6.30E-09		
Indeno(1,2,3-cd)pyrene	1.5	1.30E-01	1.01E-05	1.97E-06			1.38E-07	2.70E-08	7.3E-01	2E-08
Naphthalene	3.7	1.30E-01	1.01E-05	4.86E-06	2.0E-02	2E-04	1.38E-07	6.66E-08		
Phenanthrene	1.9	1.30E-01	1.01E-05	2.50E-06			1.38E-07	3.42E-08		
Pyrene	10	1.30E-01	1.01E-05	1.31E-05	3.0E-01	4E-05	1.38E-07	1.80E-07		
Aroclor 1242	0.29	1.40E-01	1.01E-05	4.10E-07			1.38E-07	5.62E-09	2.0E+00	1E-08
Aroclor 1254	0.36	1.40E-01	1.01E-05	5.09E-07	5.0E-05	1E-02	1.38E-07	6.97E-09	2.0E+00	1E-08
Arsenic	23	3.00E-02	1.01E-05	6.97E-06	2.9E-04	2E-02	1.38E-07	9.55E-08	1.6E+00	2E-07
Beryllium*	2.2									
Cadmium	4.1	1.00E-03	1.01E-05	4.14E-08	2.5E-05	2E-03	1.38E-07	5.67E-10		
Chromium*	21									
Copper*	84									
Lead*	360									
Mercury*	1.2									
Nickel*	46									
Selenium*	1.4									
Thallium*	1.8									
Zinc*	1400									
Total Cyanide*	0.8									
			Total Pathway Hazard Index--------->			4E-02	Total Pathway Risk----->			1E-06

DERMAL CONTACT WITH SOIL
CS = Concentration of chemical in soil (mg/kg). See Table 3.
ABS = Absorption Factor - RAGS Part E (USEPA 2004a).

1.00E-06	CF = 0.000001 kg/mg - Conversion Factor
3.30E+03	SA = 3,300 sq cm - Skin Surface Area available for a construction worker, (USEPA 2004a)
1.00E+00	ED = 1 yr - Exposure Duration for a construction worker, (assumed value)
2.50E+02	EF = 250 days/yr - Exposure Frequency for a construction worker, (assumed value)
7.00E+01	BW = 70 kg - Body Weight for an adult, (USEPA 1991)
3.50E+02	ATn = 350 days - Averaging Time for noncarcinogenic compounds, (assumed value)
2.555E+04	ATc = 25,550 days- Averaging Time for carcinogenic compounds, (USEPA 1991)
3.00E-01	AF = 0.3 mg/cm^2 - Soil to Skin Adherence Factor for a construction worker, (USEPA 2004a)
HIF--NONCARCINOGENIC---------> 1.01E-05	HIF = (SA * EF * ED* AF / BW)* CF / (ATn)
HIF--CARCINOGENIC----------> 1.38E-07	HIF = (SA* EF * ED * AF / BW) * CF / (ATc)

DAILY INTAKE = (CS * ABS * HIF)
HQ (noncarcinogenic) = (INTAKE / RfD)
RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

Note:
* BTEX compounds and inorganics except arsenic and cadmium excluded from dermal risk assessment (USEPA 2004a).

Table 22
Inhalation of Chemicals in Fugitive Dust
Reasonable Maximum Exposure (RME)
Post-Remediation Construction Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation RfC mg/m^3	Inhalation RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$ or Unit Risk $(ug/m^3)^{-1}$	Inhalation Risk unitless
Acetone	0.35	1.65E-09	5.76E-10				2.25E-11	7.89E-12		
Benzene	0.03	1.65E-09	4.94E-11	3.0E-02	8.6E-03	6E-09	2.25E-11	6.76E-13	2.7E-02	2E-14
2-Butanone	0.17	1.65E-09	2.80E-10	1.0E+00	2.9E-01	1E-09	2.25E-11	3.83E-12		
Carbon Disulfide	0.03	1.65E-09	4.94E-11	7.0E-01	2.0E-01	2E-10	2.25E-11	6.76E-13		
Ethylbenzene	4.7	1.65E-09	7.74E-09	1.0E+00	2.9E-01	3E-08	2.25E-11	1.06E-10		
Styrene	0.036	1.65E-09	5.92E-11	3.0E+00	8.6E-01	7E-11	2.25E-11	8.12E-13		
Toluene (1)	0.019	5.76E-09	1.09E-10	4.0E-01		3E-10	7.89E-11	1.50E-12		
m,p-Xylene	0.12	1.65E-09	1.97E-10	1.0E-01	2.9E-02	7E-09	2.25E-11	2.71E-12		
o-Xylene	2	1.65E-09	3.29E-09	1.0E-01	2.9E-02	1E-07	2.25E-11	4.51E-11		
Bis(2-ethylhexyl)phthalate	2.9	1.65E-09	4.77E-09				2.25E-11	6.54E-11		
Carbazole	0.5	1.65E-09	8.23E-10				2.25E-11	1.13E-11		
Dibenzofuran	0.67	1.65E-09	1.10E-09				2.25E-11	1.51E-11		
2-Methylnaphthalene	2.3	1.65E-09	3.79E-09				2.25E-11	5.19E-11		
Acenaphthene	0.34	1.65E-09	5.60E-10				2.25E-11	7.67E-12		
Acenaphthylene	0.14	1.65E-09	2.30E-10				2.25E-11	3.16E-12		
Anthracene	2	1.65E-09	3.29E-09				2.25E-11	4.51E-11		
Benzo(a)anthracene (1, 2)	4.9	5.76E-09	2.82E-08				7.89E-11	3.87E-10	8.8E-05	3E-11
Benzo(b)fluoranthene (1, 2)	2.8	5.76E-09	1.61E-08				7.89E-11	2.21E-10	8.8E-05	2E-11
Benzo(k)fluoranthene (1, 2)	2	5.76E-09	1.15E-08				7.89E-11	1.58E-10	8.8E-06	1E-12
Benzo(g,h,i)perylene	1.5	1.65E-09	2.47E-09				2.25E-11	3.38E-11		
Benzo(a)pyrene (1, 2)	5.2	5.76E-09	3.00E-08				7.89E-11	4.10E-10	8.8E-04	4E-10
Chrysene (1, 2)	4.4	5.76E-09	2.53E-08				7.89E-11	3.47E-10	8.8E-07	3E-13
Dibenzo(a,h)anthracene (1, 2)	0.66	5.76E-09	3.80E-09				7.89E-11	5.21E-11	8.8E-04	5E-11
Fluoranthene	7.5	1.65E-09	1.23E-08				2.25E-11	1.69E-10		
Fluorene	0.35	1.65E-09	5.76E-10				2.25E-11	7.89E-12		
Indeno(1,2,3-cd)pyrene (1, 2)	1.5	5.76E-09	8.64E-09				7.89E-11	1.18E-10	8.8E-05	1E-11
Naphthalene	3.7	5.76E-09	2.13E-08	3.0E-03		7E-06	7.89E-11	2.92E-10		
Phenanthrene	1.9	1.65E-09	3.13E-09				2.25E-11	4.28E-11		
Pyrene	10	1.65E-09	1.65E-08				2.25E-11	2.25E-10		
Aroclor 1242	0.29	1.65E-09	4.77E-10				2.25E-11	6.54E-12	2.0E+00	1E-11
Aroclor 1254	0.36	1.65E-09	5.92E-10				2.25E-11	8.12E-12	2.0E+00	2E-11
Arsenic (1, 2)	23	5.76E-09	1.32E-07				7.89E-11	1.81E-09	4.3E-03	8E-09
Beryllium (1, 2)	2.2	5.76E-09	1.27E-08	2.0E-05		6E-04	7.89E-11	1.74E-10	2.4E-03	4E-10
Cadmium (1, 2)	4.1	5.76E-09	2.36E-08				7.89E-11	3.24E-10	1.8E-03	6E-10
Chromium (1, 2, 3)	21	5.76E-09	1.21E-07	1.0E-04		1E-03	7.89E-11	1.66E-09	1.2E-02	2E-08
Copper	84	1.65E-09	1.38E-07				2.25E-11	1.89E-09		
Lead	360	1.65E-09	5.92E-07				2.25E-11	8.12E-09		
Mercury	1.2	1.65E-09	1.97E-09	3.0E-04	8.6E-05	2E-05	2.25E-11	2.71E-11		
Nickel	46	1.65E-09	7.57E-08				2.25E-11	1.04E-09		
Selenium	1.4	1.65E-09	2.30E-09				2.25E-11	3.16E-11		
Thallium	1.8	1.65E-09	2.96E-09				2.25E-11	4.06E-11		
Zinc	1400	1.65E-09	2.30E-06				2.25E-11	3.16E-08		
Total Cyanide	0.8	1.65E-09	1.32E-09				2.25E-11	1.80E-11		
			Total pathway Hazard Index-------->			2E-03		Total pathway Risk---->		3E-08

INHALATION DUE TO FUGITIVE DUST

CS = Concentration of chemical in soil (mg/kg). See Table 3.

1.24E+08 PEF = 124,000,000 m^3/kg - Particulate Emission Factor, (IAC 2002)

2.00E+01 IR = 20 m^3/day - Inhalation Rate of soil by a construction worker, (USEPA 1997a)

2.50E+02 EF = 250 days/yr - Exposure Frequency for a construction worker, (assumed value)

1.00E+00 ED = 1 yr - Exposure Duration for a construction worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

3.50E+02 ATn = 350 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days- Averaging Time for carcinogenic compounds, (USEPA 1991)

HIF--NONCARCINOGENIC-------> 1.65E-09 HIF = (IR * EF * ED) / (BW * PEF * ATn)

HIF--CARCINOGENIC----------> 2.25E-11 HIF = (IR * EF * ED) / (BW * PEF * ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

FOR CARCINOGENIC PAHS, TOLUENE, NAPHTHALENE, BERYLLIUM, CADMIUM AND CHROMIUM:

5.76E-09 HIF = (EF * ED) / (PEF * ATn)

7.89E-11 HIF = (EF * ED) / (PEF * ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfC)

RISK (carcinogenic) = (INTAKE * UR * 1000 ug/mg)

NOTES:

(1) Units for HIF are kg/m^3 and units for Daily Intake are mg/m^3.

(2) Unit Risk (UR) $(ug/m^3)^{-1}$ is used to calculate carcinogenic risk.

(3) Chromium concentration is total chromium, RfC and UR are for chromium VI particulates.

Table 23
Inhalation of Chemicals in Vapor Phase
Reasonable Maximum Exposure (RME)
Post-Remediation Construction Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (Cb) mg/m^3	Noncarcinogenic Effects: Human Intake Factor (HIF) unitless	Daily Intake mg/m^3	Inhalation RfC mg/m^3	Inhalation RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	Inhalation Risk unitless
Acetone	3.91E-07	2.04E-01	7.98E-08				2.80E-03	1.09E-09		
Benzene	2.03E-06	2.04E-01	4.15E-07	3.0E-02	8.6E-03	5E-05	2.80E-03	5.68E-09	2.7E-02	2E-10
2-Butanone	9.18E-08	2.04E-01	1.87E-08	1.0E+00	2.9E-01	7E-08	2.80E-03	2.57E-10		
Carbon Disulfide	1.11E-05	2.04E-01	2.26E-06	7.0E-01	2.0E-01	1E-05	2.80E-03	3.09E-08		
Ethylbenzene	1.36E-04	2.04E-01	2.78E-05	1.0E+00	2.9E-01	1E-04	2.80E-03	3.80E-07		
Styrene	1.87E-07	2.04E-01	3.81E-08	3.0E+00	8.6E-01	4E-08	2.80E-03	5.23E-10		
Toluene (1)	8.73E-07	7.14E-01	6.23E-07	4.0E-01		2E-06	9.78E-03	8.54E-09		
m,p-Xylene	3.29E-06	2.04E-01	6.71E-07	1.0E-01	2.9E-02	2E-05	2.80E-03	9.19E-09		
o-Xylene	4.47E-05	2.04E-01	9.13E-06	1.0E-01	2.9E-02	3E-04	2.80E-03	1.25E-07		
Naphthalene (1)	1.17E-06	7.14E-01	8.38E-07	3.0E-03		3E-04	9.78E-03	1.15E-08		
		Total pathway Hazard Index-------->				8E-04	Total pathway Risk---->			2E-10

INHALATION OF CHEMICALS IN VAPOR PHASE

Cb = Concentration of chemical in air (mg/kg). See Table 8.

2.00E+01 IR = 20 m^3/day - Inhalation Rate of a construction worker, (USEPA 1997a)

2.50E+02 EF = 250 days/yr - Exposure Frequency for a construction worker, (assumed value)

1.00E+00 ED = 1 year - Exposure Duration for a construction worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

3.50E+02 ATn = 350 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days- Averaging Time for carcinogenic compounds, (USEPA 1991)

HIF--NONCARCINOGENIC---------> 2.04E-01 HIF = (IR * EF * ED) / (BW * ATn)

HIF--CARCINOGENIC----------> 2.80E-03 HIF = (IR * EF * ED) / (BW * ATc)

DAILY INTAKE = (Cb * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

FOR TOLUENE AND NAPHTHALENE:

HIF--NONCARCINOGENIC---------> 7.14E-01 HIF = (EF * ED) / (ATn)

HIF--CARCINOGENIC----------> 9.78E-03 HIF = (EF * ED) / (ATc)

DAILY INTAKE = (Cb * HIF)

HQ (noncarcinogenic) = (INTAKE / RfC)

NOTE:

(1) Units for HIF are kg/m^3 and units for Daily Intake are mg/m^3.

Table 24
Incidental Ingestion of Soil
Central Tendency (CT)
Post-Remediation Construction Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Oral RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	Risk unitless
Acetone	0.35	1.02E-06	3.57E-07	1.00E+00	3.57E-07	6.99E-09	2.45E-09		
Benzene	0.03	1.02E-06	3.06E-08	4.0E-03	8E-06	6.99E-09	2.10E-10	5.5E-02	1E-11
2-Butanone	0.17	1.02E-06	1.73E-07	2.0E+00	9E-08	6.99E-09	1.19E-09		
Carbon Disulfide	0.03	1.02E-06	3.06E-08	1.0E-01	3E-07	6.99E-09	2.10E-10		
Ethylbenzene	4.7	1.02E-06	4.80E-06	1.0E-01	5E-05	6.99E-09	3.28E-08		
Styrene	0.036	1.02E-06	3.67E-08	2.0E-01	2E-07	6.99E-09	2.52E-10		
Toluene	0.019	1.02E-06	1.94E-08	2.0E+00	1E-08	6.99E-09	1.33E-10		
m,p-Xylene	0.12	1.02E-06	1.22E-07	2.0E-01	6E-07	6.99E-09	8.39E-10		
o-Xylene	2	1.02E-06	2.04E-06	2.0E-01	1E-05	6.99E-09	1.40E-08		
Bis(2-ethylhexyl)phthalate	2.9	1.02E-06	2.96E-06	2.0E-02	1E-04	6.99E-09	2.03E-08	1.4E-02	3E-10
Carbazole	0.5	1.02E-06	5.10E-07			6.99E-09	3.49E-09	2.0E-02	7E-11
Dibenzofuran	0.67	1.02E-06	6.84E-07			6.99E-09	4.68E-09		
2-Methylnaphthalene	2.3	1.02E-06	2.35E-06	4.0E-03	6E-04	6.99E-09	1.61E-08		
Acenaphthene	0.34	1.02E-06	3.47E-07	6.0E-01	6E-07	6.99E-09	2.38E-09		
Acenaphthylene	0.14	1.02E-06	1.43E-07			6.99E-09	9.78E-10		
Anthracene	2	1.02E-06	2.04E-06	3.0E+00	7E-07	6.99E-09	1.40E-08		
Benzo(a)anthracene	4.9	1.02E-06	5.00E-06			6.99E-09	3.42E-08	7.3E-01	3E-08
Benzo(b)fluoranthene	2.8	1.02E-06	2.86E-06			6.99E-09	1.96E-08	7.3E-01	1E-08
Benzo(k)fluoranthene	2	1.02E-06	2.04E-06			6.99E-09	1.40E-08	7.3E-02	1E-09
Benzo(g,h,i)perylene	1.5	1.02E-06	1.53E-06			6.99E-09	1.05E-08		
Benzo(a)pyrene	5.2	1.02E-06	5.31E-06			6.99E-09	3.63E-08	7.3E+00	3E-07
Chrysene	4.4	1.02E-06	4.49E-06			6.99E-09	3.08E-08	7.3E-03	2E-10
Dibenzo(a,h)anthracene	0.66	1.02E-06	6.73E-07			6.99E-09	4.61E-09	7.3E+00	3E-08
Fluoranthene	7.5	1.02E-06	7.65E-06	4.0E-01	2E-05	6.99E-09	5.24E-08		
Fluorene	0.35	1.02E-06	3.57E-07	4.0E-01	9E-07	6.99E-09	2.45E-09		
Indeno(1,2,3-cd)pyrene	1.5	1.02E-06	1.53E-06			6.99E-09	1.05E-08	7.3E-01	8E-09
Naphthalene	3.7	1.02E-06	3.78E-06	2.0E-02	2E-04	6.99E-09	2.59E-08		
Phenanthrene	1.9	1.02E-06	1.94E-06			6.99E-09	1.33E-08		
Pyrene	10	1.02E-06	1.02E-05	3.0E-01	3E-05	6.99E-09	6.99E-08		
Aroclor 1242	0.29	1.02E-06	2.96E-07			6.99E-09	2.03E-09	2.0E+00	4E-09
Aroclor 1254	0.36	1.02E-06	3.67E-07	5.0E-05	7E-03	6.99E-09	2.52E-09	2.0E+00	5E-09
Arsenic	23	1.02E-06	2.35E-05	3.0E-04	8E-02	6.99E-09	1.61E-07	1.5E+00	2E-07
Beryllium	2.2	1.02E-06	2.24E-06	5.0E-03	4E-04	6.99E-09	1.54E-08		
Cadmium	4.1	1.02E-06	4.18E-06	1.0E-03	4E-03	6.99E-09	2.87E-08		
Chromium *	21	1.02E-06	2.14E-05	2.0E-02	1E-03	6.99E-09	1.47E-07		
Copper	84	1.02E-06	8.57E-05	4.0E-02	2E-03	6.99E-09	5.87E-07		
Lead	360	1.02E-06	3.67E-04			6.99E-09	2.52E-06		
Mercury	1.2	1.02E-06	1.22E-06			6.99E-09	8.39E-09		
Nickel	46	1.02E-06	4.69E-05	2.0E-02	2E-03	6.99E-09	3.21E-07		
Selenium	1.4	1.02E-06	1.43E-06	5.0E-03	3E-04	6.99E-09	9.78E-09		
Thallium	1.8	1.02E-06	1.84E-06			6.99E-09	1.26E-08		
Zinc	1400	1.02E-06	1.43E-03	3.0E-01	5E-03	6.99E-09	9.78E-06		
Total Cyanide	0.8	1.02E-06	8.16E-07	2.0E-02	4E-05	6.99E-09	5.59E-09		
		Total Pathway Hazard Index--------->			1E-01	Total Pathway Risk----->			6E-07

INCIDENTAL INGESTION OF SOIL

CS = Concentration of chemical in soil (mg/kg). See Table 3.

1.00E-06 CF = 0.000001 kg/mg - Conversion Factor

1.00E+02 IR = 100 mg/day - Ingestion Rate of soil by a construction worker, (USEPA 1997a)

1.00E+00 ED = 1 yr - Exposure Duration for a construction worker, (assumed value)

1.25E+02 EF = 125 days/yr - Exposure Frequency for a construction worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

1.75E+02 ATn = 175 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

1.00E+00 FI = 1 - Fraction Ingested, (USEPA 1989)

HIF--NONCARCINOGENIC----------> 1.02E-06 HIF = (IR * EF * ED * FI / BW) * CF / (ATn)

HIF--CARCINOGENIC----------> 6.99E-09 HIF = (IR * EF * ED * FI / BW) * CF / (ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

* Chromium concentration is total chromium, RfD is for chromium VI particulates.

Table 25
Dermal Contact with Soil
Central Tendency (CT)
Post-Remediation Construction Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Absorption Factor (ABS) unitless	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Adjusted Dermal RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Adjusted Dermal Slope Factor (mg/kg-day)$^{-1}$	Risk unitless
Acetone*	0.35									
Benzene*	0.03									
2-Butanone*	0.17									
Carbon Disulfide*	0.03									
Ethylbenzene*	4.7									
Styrene*	0.036									
Toluene*	0.019									
m,p-Xylene*	0.12									
o-Xylene*	2									
Bis(2-ethylhexyl)phthalate	2.9	1.00E-01	3.37E-06	9.77E-07	2.0E-02	5E-05	2.31E-08	6.69E-09	1.4E-02	9E-11
Carbazole	0.5	1.00E-01	3.37E-06	1.68E-07			2.31E-08	1.15E-09	2.0E-02	2E-11
Dibenzofuran	0.67	1.00E-01	3.37E-06	2.26E-07			2.31E-08	1.55E-09		
2-Methylnaphthalene	2.3	1.30E-01	3.37E-06	1.01E-06	4.0E-03	3E-04	2.31E-08	6.90E-09		
Acenaphthene	0.34	1.30E-01	3.37E-06	1.49E-07	6.0E-01	2E-07	2.31E-08	1.02E-09		
Acenaphthylene	0.14	1.30E-01	3.37E-06	6.13E-08			2.31E-08	4.20E-10		
Anthracene	2	1.30E-01	3.37E-06	8.76E-07	3.0E+00	3E-07	2.31E-08	6.00E-09		
Benzo(a)anthracene	4.9	1.30E-01	3.37E-06	2.15E-06			2.31E-08	1.47E-08	7.3E-01	1E-08
Benzo(b)fluoranthene	2.8	1.30E-01	3.37E-06	1.23E-06			2.31E-08	8.40E-09	7.3E-01	6E-09
Benzo(k)fluoranthene	2	1.30E-01	3.37E-06	8.76E-07			2.31E-08	6.00E-09	7.3E-02	4E-10
Benzo(g,h,i)perylene	1.5	1.30E-01	3.37E-06	6.57E-07			2.31E-08	4.50E-09		
Benzo(a)pyrene	5.2	1.30E-01	3.37E-06	2.28E-06			2.31E-08	1.56E-08	7.3E+00	1E-07
Chrysene	4.4	1.30E-01	3.37E-06	1.93E-06			2.31E-08	1.32E-08	7.3E-03	1E-10
Dibenzo(a,h)anthracene	0.66	1.30E-01	3.37E-06	2.89E-07			2.31E-08	1.98E-09	7.3E+00	1E-08
Fluoranthene	7.5	1.30E-01	3.37E-06	3.28E-06	4.0E-01	8E-06	2.31E-08	2.25E-08		
Fluorene	0.35	1.30E-01	3.37E-06	1.53E-07	4.0E-01	4E-07	2.31E-08	1.05E-09		
Indeno(1,2,3-cd)pyrene	1.5	1.30E-01	3.37E-06	6.57E-07			2.31E-08	4.50E-09	7.3E-01	3E-09
Naphthalene	3.7	1.30E-01	3.37E-06	1.62E-06	2.0E-02	8E-05	2.31E-08	1.11E-08		
Phenanthrene	1.9	1.30E-01	3.37E-06	8.32E-07			2.31E-08	5.70E-09		
Pyrene	10	1.30E-01	3.37E-06	4.38E-06	3.0E-01	1E-05	2.31E-08	3.00E-08		
Aroclor 1242	0.29	1.40E-01	3.37E-06	1.37E-07			2.31E-08	9.36E-10	2.0E+00	2E-09
Aroclor 1254	0.36	1.40E-01	3.37E-06	1.70E-07	5.0E-05	3E-03	2.31E-08	1.16E-09	2.0E+00	2E-09
Arsenic	23	3.00E-02	3.37E-06	2.32E-06	2.9E-04	8E-03	2.31E-08	1.59E-08	1.6E+00	3E-08
Beryllium*	2.2									
Cadmium	4.1	1.00E-03	3.37E-06	1.38E-08	2.5E-05	6E-04	2.31E-08	9.46E-11		
Chromium*	21									
Copper*	84									
Lead*	360									
Mercury*	1.2									
Nickel*	46									
Selenium*	1.4									
Thallium*	1.8									
Zinc*	1400									
Total Cyanide*	0.8									
			Total Pathway Hazard Index--------->			1E-02	Total Pathway Risk----->			2E-07

DERMAL CONTACT WITH SOIL
CS = Concentration of chemical in soil (mg/kg). See Table 3.
ABS = Absorption Factor - RAGS Part E (USEPA 2004a).

1.00E-06	CF = 0.000001 kg/mg - Conversion Factor
3.30E+03	SA = 3,300 sq cm - Skin Surface Area available for a construction worker, (USEPA 2004a)
1.00E+00	ED = 1 yr - Exposure Duration for a construction worker, (assumed value)
1.25E+02	EF = 125 days/yr - Exposure Frequency for a construction worker, (assumed value)
7.00E+01	BW = 70 kg - Body Weight for an adult, (USEPA 1991)
1.75E+02	ATn = 175 days - Averaging Time for noncarcinogenic compounds, (assumed value)
2.555E+04	ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)
1.00E-01	AF = 0.3 mg/cm^2 - Soil to Skin Adherence Factor for a construction worker, (USEPA 2004a)
HIF--NONCARCINOGENIC----------> 3.37E-06	HIF = (SA * EF * ED * AF / BW) * CF / (ATn)
HIF--CARCINOGENIC----------> 2.31E-08	HIF = (SA * EF * ED * AF / BW) * CF / (ATc)

DAILY INTAKE = (CS * ABS * HIF)
HQ (noncarcinogenic) = (INTAKE / RfD)
RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

Note:
* BTEX compounds and inorganics except arsenic and cadmium excluded from dermal risk assessment (USEPA 2004a).

Table 26
Inhalation of Chemicals in Fugitive Dust
Central Tendency (CT)
Post-Remediation Construction Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (CS) mg/kg	Noncarcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation RfC mg/m^3	Inhalation RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$ or Unit Risk $(ug/m^3)^{-1}$	Inhalation Risk unitless
Acetone	0.35	9.87E-10	3.46E-10				6.76E-12	2.37E-12		
Benzene	0.03	9.87E-10	2.96E-11	3.0E-02	8.6E-03	3E-09	6.76E-12	2.03E-13	2.7E-02	6E-15
2-Butanone	0.17	9.87E-10	1.68E-10	1.0E+00	2.9E-01	6E-10	6.76E-12	1.15E-12		
Carbon Disulfide	0.03	9.87E-10	2.96E-11	7.0E-01	2.0E-01	1E-10	6.76E-12	2.03E-13		
Ethylbenzene	4.7	9.87E-10	4.64E-09	1.0E+00	2.9E-01	2E-08	6.76E-12	3.18E-11		
Styrene	0.036	9.87E-10	3.55E-11	3.0E+00	8.6E-01	4E-11	6.76E-12	2.43E-13		
Toluene (1)	0.019	5.76E-09	1.09E-10	4.0E-01		3E-10	3.95E-11	7.50E-13		
m,p-Xylene	0.12	9.87E-10	1.18E-10	1.0E-01	2.9E-02	4E-09	6.76E-12	8.12E-13		
o-Xylene	2	9.87E-10	1.97E-09	1.0E-01	2.9E-02	7E-08	6.76E-12	1.35E-11		
Bis(2-ethylhexyl)phthalate	2.9	9.87E-10	2.86E-09				6.76E-12	1.96E-11		
Carbazole	0.5	9.87E-10	4.94E-10				6.76E-12	3.38E-12		
Dibenzofuran	0.67	9.87E-10	6.62E-10				6.76E-12	4.53E-12		
2-Methylnaphthalene	2.3	9.87E-10	2.27E-09				6.76E-12	1.56E-11		
Acenaphthene	0.34	9.87E-10	3.36E-10				6.76E-12	2.30E-12		
Acenaphthylene	0.14	9.87E-10	1.38E-10				6.76E-12	9.47E-13		
Anthracene	2	9.87E-10	1.97E-09				6.76E-12	1.35E-11		
Benzo(a)anthracene (1, 2)	4.9	5.76E-09	2.82E-08				3.95E-11	1.93E-10	8.8E-05	2E-11
Benzo(b)fluoranthene (1, 2)	2.8	5.76E-09	1.61E-08				3.95E-11	1.10E-10	8.8E-05	1E-11
Benzo(k)fluoranthene (1, 2)	2	5.76E-09	1.15E-08				3.95E-11	7.89E-11	8.8E-06	7E-13
Benzo(g,h,i)perylene	1.5	9.87E-10	1.48E-09				6.76E-12	1.01E-11		
Benzo(a)pyrene (1, 2)	5.2	5.76E-09	3.00E-08				3.95E-11	2.05E-10	8.8E-04	2E-10
Chrysene (1, 2)	4.4	5.76E-09	2.53E-08				3.95E-11	1.74E-10	8.8E-07	2E-13
Dibenzo(a,h)anthracene (1, 2)	0.66	5.76E-09	3.80E-09				3.95E-11	2.60E-11	8.8E-04	2E-11
Fluoranthene	7.5	9.87E-10	7.41E-09				6.76E-12	5.07E-11		
Fluorene	0.35	9.87E-10	3.46E-10				6.76E-12	2.37E-12		
Indeno(1,2,3-cd)pyrene (1, 2)	1.5	5.76E-09	8.64E-09				3.95E-11	5.92E-11	8.8E-05	5E-12
Naphthalene	3.7	5.76E-09	2.13E-08	3.0E-03		7E-06	3.95E-11	1.46E-10		
Phenanthrene	1.9	9.87E-10	1.88E-09				6.76E-12	1.29E-11		
Pyrene	10	9.87E-10	9.87E-09				6.76E-12	6.76E-11		
Aroclor 1242	0.29	9.87E-10	2.86E-10				6.76E-12	1.96E-12	2.0E+00	4E-12
Aroclor 1254	0.36	9.87E-10	3.55E-10				6.76E-12	2.43E-12	2.0E+00	5E-12
Arsenic (1, 2)	23	5.76E-09	1.32E-07				3.95E-11	9.07E-10	4.3E-03	4E-09
Beryllium (1, 2)	2.2	5.76E-09	1.27E-08	2.0E-05		6E-04	3.95E-11	8.68E-11	2.4E-03	2E-10
Cadmium (1, 2)	4.1	5.76E-09	2.36E-08				3.95E-11	1.62E-10	1.8E-03	3E-10
Chromium (1, 2, 3)	21	5.76E-09	1.21E-07	1.0E-04		1E-03	3.95E-11	8.29E-10	1.2E-02	1E-08
Copper	84	9.87E-10	8.29E-08				6.76E-12	5.68E-10		
Lead	360	9.87E-10	3.55E-07				6.76E-12	2.43E-09		
Mercury	1.2	9.87E-10	1.18E-09	3.0E-04	8.6E-05	1E-05	6.76E-12	8.12E-12		
Nickel	46	9.87E-10	4.54E-08				6.76E-12	3.11E-10		
Selenium	1.4	9.87E-10	1.38E-09				6.76E-12	9.47E-12		
Thallium	1.8	9.87E-10	1.78E-09				6.76E-12	1.22E-11		
Zinc	1400	9.87E-10	1.38E-06				6.76E-12	9.47E-09		
Total Cyanide	0.8	9.87E-10	7.90E-10				6.76E-12	5.41E-12		
			Total pathway Hazard Index-------->			2E-03		Total pathway Risk---->		1E-08

INHALATION DUE TO FUGITIVE DUST

CS = Concentration of chemical in soil (mg/kg). See Table 3.

1.24E+08 PEF = 124,000,000 m^3/kg - Particulate Emission Factor, (IAC 2002)

1.20E+01 IR = 12 m^3/day - Inhalation Rate of soil for a construction worker, (USEPA 1997a)

1.25E+02 EF = 125 days/yr - Exposure Frequency for a construction worker, (assumed value)

1.00E+00 ED = 1 yr - Exposure Duration for a construction worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

1.75E+02 ATn = 175 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

HIF--NONCARCINOGENIC--------> 9.87E-10 HIF = (IR * EF * ED) / (BW * PEF * ATn)

HIF--CARCINOGENIC----------> 6.76E-12 HIF = (IR * EF * ED) / (BW * PEF * ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

FOR CARCINOGENIC PAHS, TOLUENE, NAPHTHALENE, BERYLLIUM, CADMIUM AND CHROMIUM:

5.76E-09 HIF = (EF * ED) / (PEF * ATn)

3.95E-11 HIF = (EF * ED) / (PEF * ATc)

DAILY INTAKE = (CS * HIF)

HQ (noncarcinogenic) = (INTAKE / RfC)

RISK (carcinogenic) = (INTAKE * UR * 1000 ug/mg)

NOTES:

(1) Units for HIF are kg/m^3 and units for Daily Intake are mg/m^3.

(2) Unit Risk (UR) $(ug/m^3)^{-1}$ is used to calculate carcinogenic risk.

(3) Chromium concentration is total chromium, RfC and UR are for chromium VI particulates.

Table 27
Inhalation of Chemicals in Vapor Phase
Central Tendency (CT)
Post-Remediation Construction Worker
Hawthorne Regulator Station

Chemicals of Potential Concern	RME Conc (Cb) mg/m^3	Noncarcinogenic Effects: Human Intake Factor (HIF) unitless	Daily Intake mg/m^3	Inhalation RfC mg/m^3	Inhalation RfD mg/kg-day	Hazard Quotient (HQ) unitless	Lifetime Carcinogenic Effects: Human Intake Factor (HIF) kg/kg-day	Daily Intake mg/kg-day	Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$	Inhalation Risk unitless
Acetone	3.91E-07	1.22E-01	4.79E-08				8.39E-04	3.28E-10		
Benzene	2.03E-06	1.22E-01	2.49E-07	3.0E-02	8.6E-03	3E-05	8.39E-04	1.71E-09	2.7E-02	5E-11
2-Butanone	9.18E-08	1.22E-01	1.12E-08	1.0E+00	2.9E-01	4E-08	8.39E-04	7.70E-11		
Carbon Disulfide	1.11E-05	1.22E-01	1.35E-06	7.0E-01	2.0E-01	7E-06	8.39E-04	9.28E-09		
Ethylbenzene	1.36E-04	1.22E-01	1.67E-05	1.0E+00	2.9E-01	6E-05	8.39E-04	1.14E-07		
Styrene	1.87E-07	1.22E-01	2.29E-08	3.0E+00	8.6E-01	3E-08	8.39E-04	1.57E-10		
Toluene (1)	8.73E-07	7.14E-01	6.23E-07	4.0E-01		2E-06	4.89E-03	4.27E-09		
m,p-Xylene	3.29E-06	1.22E-01	4.02E-07	1.0E-01	2.9E-02	1E-05	8.39E-04	2.76E-09		
o-Xylene	4.47E-05	1.22E-01	5.48E-06	1.0E-01	2.9E-02	2E-04	8.39E-04	3.75E-08		
Naphthalene (1)	1.17E-06	7.14E-01	8.38E-07	3.0E-03		3E-04	4.89E-03	5.74E-09		
		Total pathway Hazard Index-------->				6E-04	Total pathway Risk---->			5E-11

INHALATION OF CHEMICALS IN VAPOR PHASE

Cb = Concentration of chemical in air (mg/kg). See Table 8.

1.20E+01 IR = 12 m^3/day - Inhalation Rate of a construction worker, (USEPA 1997a)

1.25E+02 EF = 125 days/yr - Exposure Frequency for a construction worker, (assumed value)

1.00E+00 ED = 1 year - Exposure Duration for a construction worker, (assumed value)

7.00E+01 BW = 70 kg - Body Weight for an adult, (USEPA 1991)

1.75E+02 ATn = 175 days - Averaging Time for noncarcinogenic compounds, (assumed value)

2.555E+04 ATc = 25,550 days - Averaging Time for carcinogenic compounds, (USEPA 1991)

HIF--NONCARCINOGENIC---------> 1.22E-01 HIF = (IR * EF * ED) / (BW * ATn)

HIF--CARCINOGENIC----------> 8.39E-04 HIF = (IR * EF * ED) / (BW * ATc)

DAILY INTAKE = (Cb * HIF)

HQ (noncarcinogenic) = (INTAKE / RfD)

RISK (carcinogenic) = (INTAKE * SLOPE FACTOR)

FOR TOLUENE AND NAPHTHALENE:

HIF--NONCARCINOGENIC---------> 7.14E-01 HIF = (EF * ED) / (ATn)

HIF--CARCINOGENIC----------> 4.89E-03 HIF = (EF * ED) / (ATc)

DAILY INTAKE = (Cb * HIF)

HQ (noncarcinogenic) = (INTAKE / RfC)

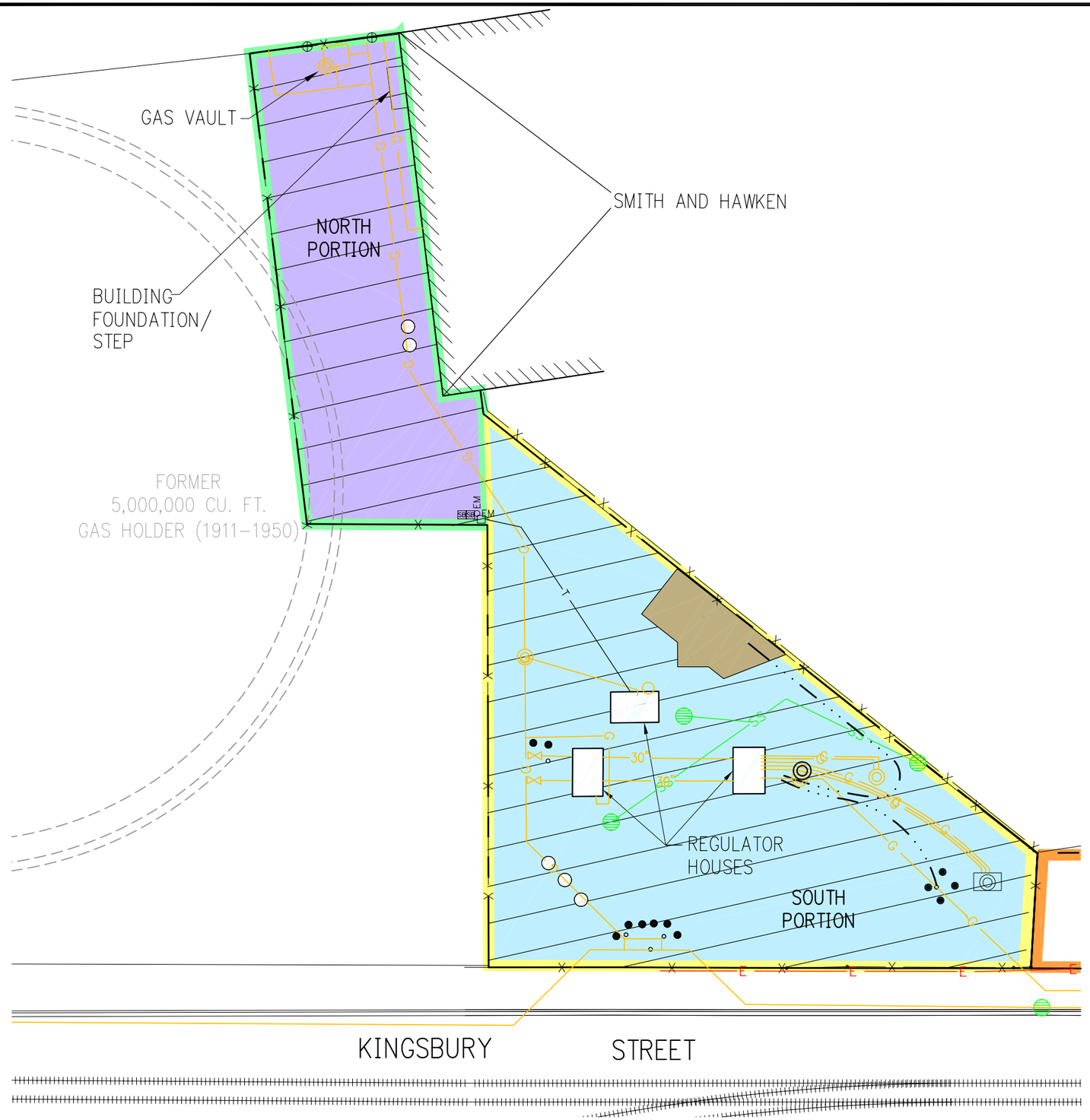
NOTE:

(1) Units for HIF are kg/m^3 and units for Daily Intake are mg/m^3.

Table 28
Summary of Hazard Indices and Carcinogenic Risks
Post-Remediation Utility Worker and Construction Worker
Hawthorne Regulator Station

Population	Medium	Exposure Pathway	Hazard Index (unitless)	Carcinogenic Risk (unitless)
Post-Remediation Utility Worker - Reasonable Maximum Exposure (RME)				
Adult Utility Worker	Subsurface Soil	Incidental Ingestion	3E-01	3E-07
		Dermal Contact	1E-01	3E-07
		Fugitive Dust	2E-03	2E-09
		Vapor Phase	4E-05	7E-13
		Total Risk -------->	**5E-01**	**6E-07**
Post-Remediation Utility Worker - Central Tendency (CT)				
Adult Utility Worker	Subsurface Soil	Incidental Ingestion	1E-01	5E-08
		Dermal Contact	3E-02	3E-08
		Fugitive Dust	2E-03	1E-09
		Vapor Phase	3E-05	2E-13
		Total Risk -------->	**1E-01**	**8E-08**
Post-Remediation Construction Worker - Reasonable Maximum Exposure (RME)				
Adult Construction Worker 1	Subsurface Soil	Incidental Ingestion	3E-01	4E-06
		Dermal Contact	4E-02	1E-06
		Fugitive Dust	2E-03	3E-08
		Vapor Phase	8E-04	2E-10
		Total Risk -------->	**4E-01**	**5E-06**
Post-Remediation Construction Worker - Central Tendency (CT)				
Adult Construction Worker 1	Subsurface Soil	Incidental Ingestion	1E-01	6E-07
		Dermal Contact	1E-02	2E-07
		Fugitive Dust	2E-03	1E-08
		Vapor Phase	6E-04	5E-11
		Total Risk -------->	**1E-01**	**8E-07**

FIGURES
TIER 3 RISK ASSESSMENT EVALUATION



LEGEND

- A PORTION OF WILLOW STREET STATION BOUNDARY
- HAWTHORNE REGULATOR STATION NORTH PORTION BOUNDARY
- HAWTHORNE REGULATOR STATION SOUTH PORTION BOUNDARY
- EXISTING BUILDING
- PROPERTY LINE
- RAILROAD TRACKS
- HISTORICAL STRUCTURES
- FENCE
- GAS MAIN VALVE
- STAND PIPE
- ABOVE GROUND POSTS
- NORTH PORTION
- SOUTH PORTION
- EXCAVATE TO 3' BGS
- EXCAVATE TO 4.5' BGS
- CATHODIC PROTECTION LINE
- SS — SEWER LINE
- T — TELEPHONE LINE
- G — GAS MAIN
- E — ELECTRICAL LINE

NORTH

30 0 30 60

SCALE IN FEET

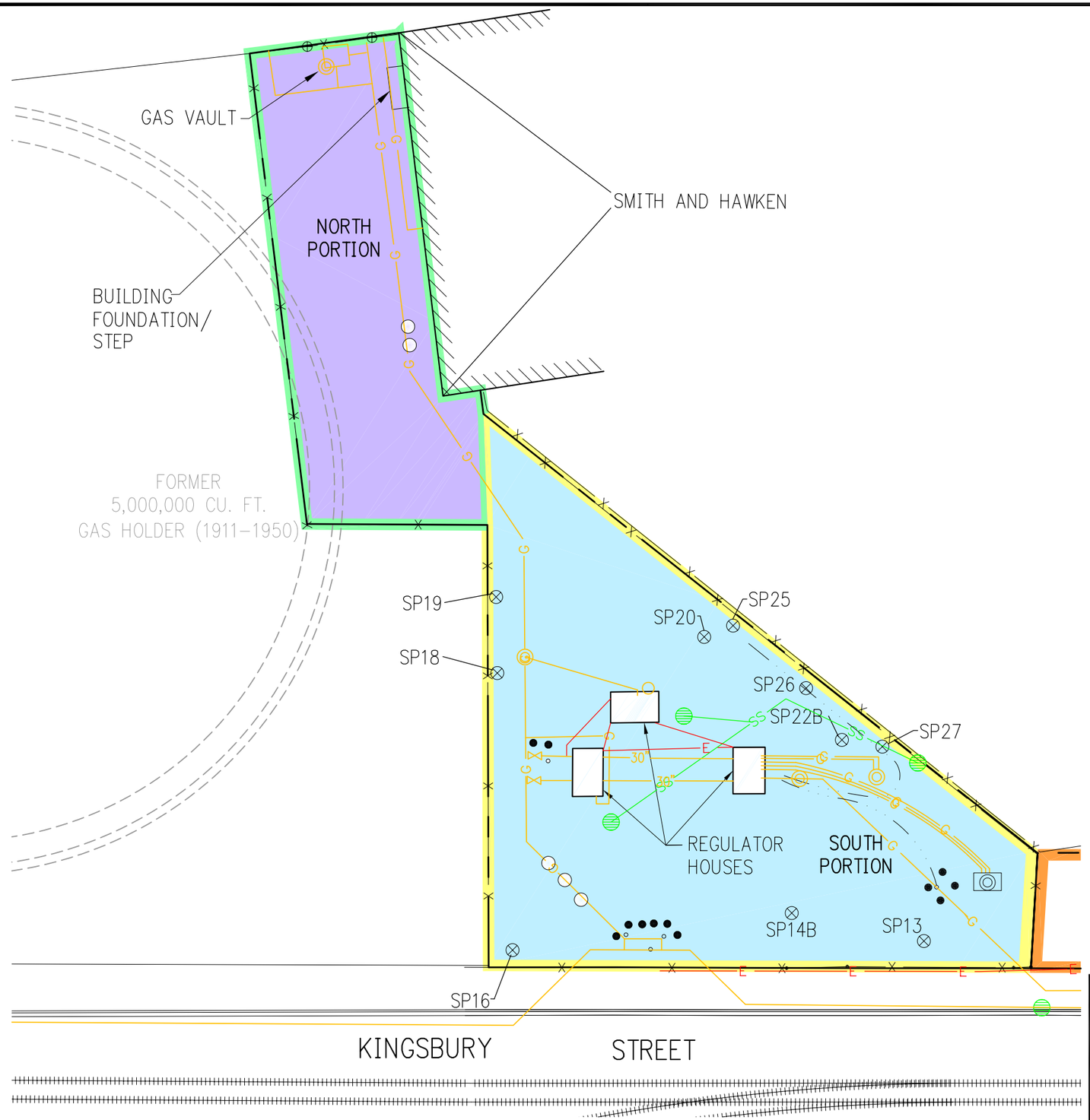
Burns & McDonnell SINCE 1898

THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 1

REMEDIAL ACTIONS MAP
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RISK ASSESSMENT\RA MAP



LEGEND

- A PORTION OF WILLOW STREET STATION BOUNDARY
- HAWTHORNE REGULATOR STATION NORTH PORTION BOUNDARY
- HAWTHORNE REGULATOR STATION SOUTH PORTION BOUNDARY
- EXISTING BUILDING
- PROPERTY LINE
- RAILROAD TRACKS
- HISTORICAL STRUCTURES
- FENCE
- GAS MAIN VALVE
- STAND PIPE
- ABOVE GROUND POSTS
- NORTH PORTION
- SOUTH PORTION
- SOIL PROBE LOCATION
- CATHODIC PROTECTION LINE
- SS — SEWER LINE
- T — TELEPHONE LINE
- G — GAS MAIN
- E — ELECTRICAL LINE

NORTH

30 0 30 60

SCALE IN FEET

Burns & McDonnell SINCE 1898

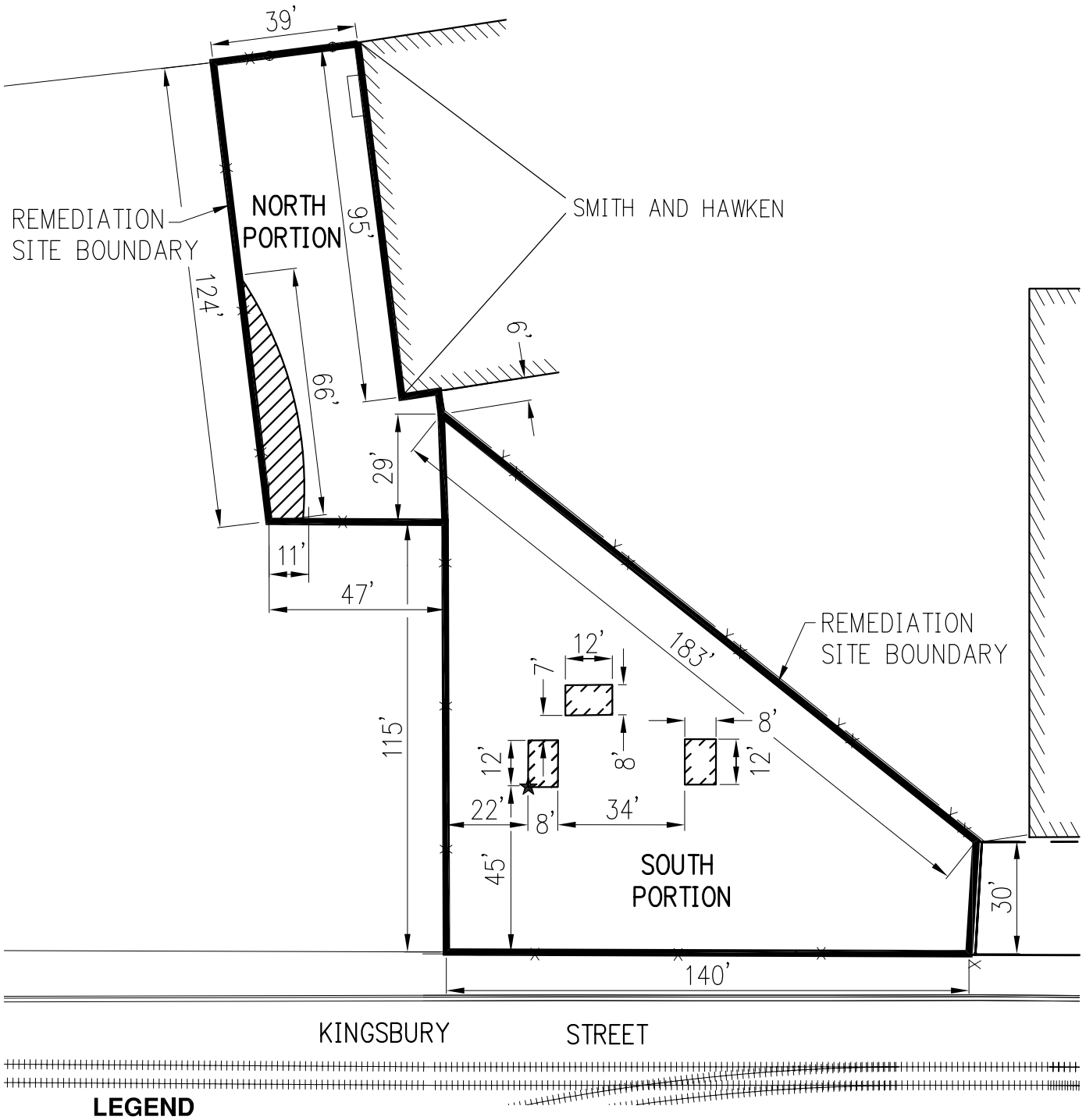
THE PEOPLES GAS LIGHT & COKE COMPANY
CHICAGO, ILLINOIS

Figure 2
RISK ASSESSMENT SAMPLE LOCATION MAP
POST REMEDIATION UTILITY AND CONSTRUCTION WORKER
HAWTHORNE REGULATOR STATION
CHICAGO, ILLINOIS

I:\PEOPLES GAS\HAWTHORNE AVE. STATION-29168\CAD\BID\REGULATOR STATION\RISK ASSESSMENT\RA SAMP MAP

APPENDIX Q
SITE BASE MAP
REMEDIAL ACTION COMPLETION REPORT
HAWTHORNE REGULATOR STATION

SITE BASE MAP
0316070022 – COOK COUNTY
HAWTHORNE REGULATOR STATION – CHICAGO/THE PEOPLES GAS LIGHT AND COKE COMPANY
SITE REMEDIATION PROGRAM
PREPARED: DECEMBER 2005



LEGEND

- BUILDING
- 40-MIL HDPE ENGINEERED BARRIER
- RAILROAD TRACKS
- ★ REFERENCE POINT
- REMEDIATION BOUNDARY

NORTH

40 0 40 80
SCALE IN FEET

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I:\PEOPLES GAS\HAWTHORNE AVE. STATION29168\CAD\BID\REGULATOR STATION\RACR\SITE BASE MAP