REPORT OF REMOVAL ACTIVITIES AND SOIL SAMPLING

FORMER VERMONT AMERICAN FACILITY 500 EAST MAIN STREET, LOUISVILLE, KENTUCKY AGENCY INTEREST # 51784

Submitted to:

KENTUCKY DIVISION OF WASTE MANAGEMENT

Prepared for:

ROBERT BOSCH TOOL CORPORATION 1800 W. Central Road Mt. Prospect, IL 60056

Prepared by:

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December 20, 2010

MACTEC Project No. 6680-08-9635





engineering and constructing a better tomorrow

December 20, 2010

Mr. Jeff Grow, P.G. State Superfund Section Superfund Branch Division of Waste Management Department for Environmental Protection 200 Fair Oaks Lane Frankfort, Kentucky 40601

Subject: Report of Initial Removal Activities and Soil Sampling Former Vermont American Facility 500 East Main Street, Louisville, Jefferson County, Kentucky AI# 51784 MACTEC Project No. 6680-08-9635

Dear Mr. Grow:

MACTEC Engineering and Consulting, Inc. (MACTEC) has prepared this report to document removal activities and soil sampling performed in September- October 2010, on behalf of Robert Bosch Tool Corporation (RBTC) at the former Vermont American facility located at 500 East Main Street in Louisville, Kentucky.

If you have any questions concerning this document, please do not hesitate to contact Alison Dunn at 859-566-3729.

Sincerely.

MACTEC ENGINEERING AND CONSULTING, INC.

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/ald Attachments

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EXECUTIVE SUMMARY

The Former Vermont American facility, located at 500 East Main Street in Louisville, Jefferson County, Kentucky, was sold by Vermont American Corporation (VAC) to 500 Associates, Inc. (the current Owner) in 1987. A portion of the property (referred to as the Jackson Street parcel) was granted managed closure status by the KDWM in early 2004, and managed closure of the balance of the property was subsequently approved in concept by the KDWM. In May 2010, MACTEC, on behalf of Robert Bosch Tool Corporation (RBTC, successor to VAC), submitted a document titled *Management Plan, Former Vermont American Facility, 500 East Main Street, Louisville, Kentucky, Agency Interest #51784 (Management Plan, May 20, 2010)*. Additional clarifications were provided in subsequent letters submitted by MACTEC on July 1, 2010 and September 14, 2010. The proposed plan with clarifications was accepted by the KDWM Superfund Branch on September 23, 2010, pending coordination of waste characterization with the Hazardous Waste Branch of the KDWM.

Between September 27 and December 17, 2010, MACTEC accomplished the removal of waste materials outlined in the *Management Plan*. As part of these removal activities, all surface and near-surface debris potentially requiring handing as hazardous waste was removed and/or staged for removal, including approximately 40 cubic yards of stained concrete (removed on October 14-15, 2010), and five drums of soil, debris and sludges (removed December 17, 2010). Wastewater generated in the process of cleaning and sampling was discharged to the sewer after approval by MSD, and is no longer present onsite.

A total of 119 subsurface samples of soil and fill materials were collected in the three previously identified soil management areas, and analyzed for the soil constituents of concern (COCs) at the site: chromium, hexavalent chromium, and lead. Based on the results, three soil areas have been identified as being impacted by plating wastes and containing chromium above the United States Environmental Protection Agency (USEPA) Region 9 2002 Preliminary Remediation Goal (PRG) for residential soil. It is recommended that, for future excavation purposes, the soil in these areas be handled as listed hazardous waste (F007), in accordance with previous KDWM directives.

Of the 119 soil samples collected, the 39 samples with the highest concentrations were also extracted using the Toxicity Characteristic Leaching Procedure (TCLP) and analyzed for, and the extract analyzed for chromium and lead. Only two of the soil samples analyzed (both from boring SB-8) exceeded the TCLP limits, and only for chromium. Soil Boring SB-8 is located within one of the designated areas where soil excavated in the future will be handled as a listed hazardous waste. The other soil and materials tested during the removal activities were below the TCLP limits for metals. Therefore, no soil or materials outside the stippled areas shown on Figure 9 would be expected to be handled as characteristically hazardous waste, pending concurrence of the KDWM Hazardous Waste Branch.

A significant amount of pre-existing concrete debris in the courtyard area (approximately 100 tons) had to be moved in order to allow soil sampling in the former plating areas. In addition, more concrete debris (approximately 60 tons) was generated during floor removal inside the Main Street building. Consistent with the *Management Plan*, concrete debris that did not have visible staining typical of plating waste was stockpiled and left onsite. Two composite samples were collected from the two stockpiles of concrete debris, and analyzed for TCLP metals. The results were well below TCLP limits for both samples. Therefore, it is recommended that this debris be handled and removed, if necessary, with other demolition debris generated at the site.

In the process of clearing, cleaning, floor removal and soil sampling, several subsurface structures and fill areas were uncovered at various locations on the site. An initial assessment was made of the material in these areas, and specific recommendations for handling the materials in these areas are provided in Section 7.0.

1.0 INTRODUCTION

1.1 BACKGROUND

The Former Vermont American facility, located at 500 East Main Street in Louisville, Jefferson County, Kentucky, was sold by Vermont American Corporation (VAC) to 500 Associates, Inc. (the current Owner) in 1987. Investigations performed after the property transfer revealed evidence of potential contamination, and the site has been the object of litigation between the parties as well as administrative action by the Energy and Environment Cabinet (Cabinet, formerly the Environmental and Public Protection Cabinet and the Natural Resources and Environmental Protection Cabinet) since that time. The property is currently undergoing appraisal, prior to the anticipated acquisition of all or part of the property by the Kentucky Transportation Cabinet (KYTC).

The investigations performed since 1987 have been summarized in multiple reports and documents submitted to the Superfund Branch of the Kentucky Division of Waste Management (KDWM, a Division within the Cabinet) by consultants for the Owner, as well as documents prepared by the KDWM. A portion of the property (referred to as the Jackson Street parcel) was granted managed closure status by the KDWM in early 2004, and managed closure of the balance of the property was subsequently approved in concept by the KDWM. Under managed closure, contaminant concentrations exceeding residential screening levels may be managed in place to minimize the risk of exposure to human and/or ecological receptors.

On March 11, 2008, a Secretary's Final Order was issued requiring VAC to characterize the extent of the releases on the site, and remedy the releases by complying with a remedial proposal submitted to and approved by the KDWM. At that time, Robert Bosch Tool Corporation (RBTC, successor to VAC) retained MACTEC Engineering and Consulting, Inc. (MACTEC) to develop a plan for complying with the order.

After submittal of several draft Management Plans at the request of the KDWM, MACTEC most recently submitted a *Management Plan* (full title: *Management Plan, Former Vermont American Facility, 500 East Main Street, Louisville, Kentucky, Agency Interest #51784*) dated May 20, 2010.

In subsequent correspondence between Jeff Grow of the KDWM and Alison Dunn of MACTEC, the KDWM indicated that the May 2010 *Management Plan* was generally acceptable as an interim plan. Additional clarifications and an updated schedule were provided in the following letters prepared by MACTEC: *Implementation Schedule and Soil Sampling Plan* (July 1, 2010) and *Work Plan for Initial Removal Activities* (September 14, 2010). The latter was accepted by the KDWM in a letter from Jeff Grow to Alison Dunn dated September 23, 2010, pending coordination of waste characterization with the Hazardous Waste Branch of the KDWM.

MACTEC reviewed the overall waste characterization approach for the project with personnel from the Hazardous Waste Branch (Cliff Hall and Bart Shaffer) in conversations immediately prior to and during execution of the field work, including telephone communications and an in-person meeting in Frankfort on September 29, 2010. Some waste characterization decisions were left pending the additional information to be provided in this report.

1.2 OBJECTIVES

The layout of the former Vermont American property located at 500 East Main Street is shown on the map in **Figure 1**. It is anticipated that the KYTC will acquire all or part of the property within the next year, and that the East Shop and all or part of the Main Street Building will eventually be demolished to make room for expansion of Interstate 65.

In prior correspondence between the KDWM and the consultant for the current owner (500 Associates, Inc.), it was established that soil underlying the former plating areas on the property, if excavated, would require handling as listed hazardous waste. Therefore, the former plater areas were established in the *Management Plan* as "soil management areas." The approximate locations of these areas are shown on **Figure 1**. The East Shop, a building running along the eastern boundary of the property, was initially proposed to be a management area. At the request of the KDWM (based on lack of evidence of contamination beneath this portion of the property, the East Shop area was removed in the May 2010 *Management Plan*.

The objectives of the work performed on behalf of RBTC at the site in September-November 2010 were the following:

- To remove surface or near-surface debris that could require handling as hazardous waste, so that later demolition of the East Shop and/or Main Street Building could proceed without special handling of this material.
- To generate sufficient information to support waste characterization for the subsurface materials left in place, and specifically the soil in the management areas, should they require excavation at a later date.

1.3 SCOPE AND REPORT ORGANIZATION

This report has been prepared to document the initial removal activities and soil sampling performed in accordance with the *Work Plan for Initial Removal Activities* dated September 14, 2010, including the revised Soil Sampling Plan attached to that Work Plan. The organization of the report is intended to provide an account of the field activities and results of the sampling.

<u>Section 2.0</u> describes property clearing and cleaning, involving removal of over-grown vegetation and concrete debris from the investigation areas in the open courtyard, and floor/trench cleaning within the Main Street and East Shop Buildings. The purpose of these activities was to support the soil sampling program and the eventual demolition of the East Shop and Main Street Buildings.

<u>Section 3.0</u> describes removal of a section of concrete floor from the area of the former East Main Plater within the Main Street Building, removal of contaminated debris for disposal off-site and backfilling of the removal area.

<u>Section 4.0</u> describes the field survey of former plater and soil boring locations and installation of soil borings in the open courtyard and within the Main Street Building in the locations of the former plating lines, followed by soil sample collection for analysis.

<u>Section 5.0</u> of this report focuses on the analytical results from the Soil Sampling Program conducted in the three soil management areas. The primary purpose of the Soil Sampling Program was to map the occurrence and concentrations of the constituents of concern (COCs) in the areas of the former platers, both horizontally and vertically, to provide the basis for a No Longer Contained-In Determination for review by the KDWM Hazardous Waste Branch.

<u>Section 6.0</u> of the report summarizes the waste staging, characterization and disposal activities performed during and following completion of the field activities.

<u>Section 7.0</u> summarizes the removal activities completed to date, and recommendations for waste materials handling in the event of future removals.

2.0 GENERAL PROPERTY CONDITION AND CLEARING/CLEANING ACTIVITIES

MACTEC was first provided access to the property by the Owner, at the request of the KYTC, in August 2008, and inspected the site on August 23 and 25, prior to initiating field work. Except for a brief period in the late 1980s or early 1990s when the Main Street Building was used as a bonded warehouse, the property had been vacant since it was purchased by 500 Associates, Inc. in 1987. Buildings in the center of the property were demolished by the Owner in 1990. Photographs of the property condition and the clearing/cleaning, as well as the other field activities conducted by MACTEC, are included in **Appendix A**.

2.1 GENERAL PROPERTY CONDITION

The open courtyard area was found to be over-grown with vegetation and littered with demolition debris and miscellaneous trash. A short section of chain-link fencing in the southwest corner of the courtyard was found broken-down or removed, allowing uncontrolled access to the site. The East Shop and Main Street Buildings were also in poor condition on the outside as both buildings had broken and deteriorating exterior doors, broken windows and deteriorating brick walls. Upon entering the East Shop, a large hole in the roof was discovered resulting from collapse of water damaged/rotten roof joists which had allowed precipitation, decaying roof debris and animals to enter the building. The floor of the East Shop was found to be littered with roof debris, trash and metal debris including piping and light fixtures, and the former process trenches located within the East Shop were filled varying amounts of building debris and trash, and with water and sludge in some of the deeper sections. Signs of transient human habitation were found both in the East Shop and in the Jackson Street building.

Eight drums labeled "Non-Hazardous Waste" were present in the courtyard, and were presumed to contain investigation derived waste generated during previous investigations by the Owner's consultants. The drums were found to be in poor condition, rusted and bulging. In addition, one drum was found inside the Main Street Building. Although labeled "purge water," the drum was found to be empty. These drums were left undisturbed during the field activities conducted by MACTEC.

2.2 OUTDOOR CLEARING AND STAGING OF DEBRIS

On September 27 through 30, 2010, AST Environmental, Inc. (AST), under subcontract to MACTEC, cleared over-grown vegetation from the courtyard using chainsaws and a skid-steer equipped with a bucket. Vegetation was cut and placed on the south side of the courtyard parallel to the fence-line and the damaged section of fencing was mended with new chain-link fence (although the section was subsequently cut again by trespassers). The wide hanging door to the East Shop from the courtyard was removed and replaced with a wooden double-door that locked from the inside, in order to provide additional site security. Photographs of the courtyard clearing activities are included in **Appendix A**.

The purpose of clearing the courtyard was two-fold: to provide access for heavy equipment into work areas inside the Main Street Building and the East Shop, and to facilitate access for the surveyors and drilling equipment to implement the planned soil sampling program in the soil management areas in the courtyard. In the process of clearing the north-northeast portion of the courtyard, in the general vicinity of the two outdoor soil management areas, the surface and shallow subsurface was found to be littered with slabs of concrete of varying sizes, some of them very large. The debris was presumably generated during demolition of the buildings in the center of the property in 1990. Due to the abundance of the debris, it would not have been possible to advance soil borings in the planned locations within the soil management areas. Therefore, the near-surface concrete debris was removed from the soil sampling areas, and staged on plastic sheeting in the southern portion of the courtyard. Photographs of the concrete debris removal and staging activities in the courtyard area are included in **Appendix A**.

Also during performance of the clearing activities, a subsurface concrete structure was found in the general vicinity of the former Circular Saw Plater (**Figure 2**). The structure was found to be a concrete tank approximately nine feet deep (below current grade) and segmented into nine chambers separated by concrete walls. Review of an historic floor plan for the facility made available by Jeff Grow of the KDWM (**Appendix B**) suggested that this tank was a remnant of a wastewater pre-treatment system that had been retrofitted in the 1980s into a former plating area. The tank was uncovered sufficiently to evaluate its dimensions and contents. The contents were found to consist of demolition debris, primarily a matrix of fine crushed brick, stone and concrete, with some larger concrete debris mixed into the matrix, especially near the surface. This material

was carefully backfilled into the area of the tank, taking care to keep the surrounding soil from being commingled into the tank contents. Photographs of the tank are included in **Appendix A**.

On September 29, 2010, MACTEC (Alison Dunn and Kathleen Regan) and Robert Bosch, LLC, parent company of RBTC (John Young, by telephone) met with representatives of the KDWM Superfund Branch (Jeff Grow) and Hazardous Waste Branch (Bart Schaffer) to review these findings and the handling of the debris encountered. Following additional discussions by telephone the next day, the decision was made to focus the short-term removal activities on surface and near-surface materials, and to gather additional information concerning subsurface materials, as needed, to guide decision-making in the event that these materials are removed at a later date.

2.3 INDOOR CLEARING AND CLEANING ACTIVITES

Clearing and cleaning activities inside the East Shop were conducted from September 27 to September 30, 2010. Inside the East Shop, AST cleared debris from the main traffic areas, and large debris that had fallen into the trenches, and set this debris to the side. AST then removed smaller debris and (where present) liquid and sludge from the former process trenches and sumps, using hand scrapers, shovels and drum (shop) vacuums, as appropriate. After removal of all contents, the interior of the trenches and sumps were pressure washed as needed, and the wash water removed by vacuum.

A sump located at the north end of the East Shop, approximately 10 feet south of the overhead door leading into the Main Street Building, is identified as East Shop Sump on **Figure 2**. The sump is approximately 2 feet square and 4 feet deep. This sump was found to contain approximately three feet of standing water. After removal of the water, black sludge and wood debris was found in the bottom of the sump. Upon removal of the sludge material, a plywood false bottom was uncovered in the bottom of the sump and appeared to be underlain by rough concrete. The sludge material removed from the sump had a petroleum odor. After cleaning, a sample of woody debris and rough concrete-like material remaining in the East Shop Sump was collected for characterization analysis. The analytical results for the sample are discussed in detail in Section 6.3. Photographs of cleaning the sump are included in **Appendix A**.

Sludge and debris removed from the former process trenches and sumps was containerized in two open-top, 55-gallon steel drums and labeled. Liquids removed from the former process trenches and sumps, along with wash waters generated from cleaning the trenches and sumps, were containerized in a 210-gallon polyethylene tank. The characterization and handling of the drummed wastes and wastewater are described in Section 6.0.

Upon completion of the trench cleaning activities, all the trenches and sumps in the East Shop were dry. On the evening of October 13, 2010, a significant rain event occurred and the following morning water was found in the floor trenches and sumps in the East Shop, presumably from rainfall entering through the holes in the roof of the building. Water was observed in the East Shop Sump, the 5- foot by 4-foot sump in the center of the East Shop, and in the floor trench in the center of the East Shop south of the center sump. Since the sumps and trenches had already been cleaned, the newly accumulated rainwater was left in place.

In the Main Street Building, concrete debris was already present in localized areas of the former East Main Plater area. That debris was apparently generated during the 1997 KDWM site investigation in which holes were broken in the concrete floor and former process piping areas and stained concrete were exposed. As part of the clearing activities, AST cleared the concrete debris from this area, and staged the debris temporarily on plastic sheeting at the east end of the Main Street Building, taking care to segregate the visibly stained concrete from unstained concrete. Upon clearing of the concrete, AST used a floor sweeper to clean the concrete floor in the East Main Plater area in preparation for the inside soil boring activities.

3.0 FLOOR REMOVAL (EAST MAIN PLATER AREA)

The soil sampling program, described in Section 4.0 of this report, was conducted prior to removal of the floor in the East Main Plater area. In addition, AST (under subcontract to MACTEC) abandoned two existing monitoring wells (W-2 and W-3) located inside the building on October 5-6, 2010. Additional details concerning the well abandonment are provided under separate cover in a *Groundwater Monitoring Report* for the site.

From October 11 through October 14, 2010, MACTEC personnel observed and documented removal of a section of concrete floor, inside the Main Street Building in the area of the former East Main Plater, by AST. Photographs documenting the floor removal activities, including concrete debris segregation and backfilling activities are included in **Appendix A**.

During previous concrete coring activities performed on October 6-7, in preparation for installation of soil borings SB-28, SB-34 and SB-35, a north-south trending strip of concrete measuring three feet in width and 30 feet in length was discovered, and this section was found to be greater than 18 inches in thickness. This strip, which ran between brick support columns on both the north and south walls of the Main Street Building, was thought to be a structural element such as a grade beam, and therefore was not removed. **Figure 2** illustrates the location of the potential grade beam, which bisects the soil management area associated with the East Main Plater into two (east and west) floor sections.

A walk-behind water-cooled concrete saw, equipped with a 28-inch diameter diamond blade, was first used to cut the floor along the edge of the section to be removed. Two sections of concrete floor measuring 22.5 feet in length (east-west) and 30 feet in width (north-south) were cut out on either side of the grade beam. The floor in these sections was found to have an average thickness of about 10 inches, composed of two separate layers.

Following completion of saw-cutting activities, AST utilized a mini-excavator equipped with a hydraulic jackhammer to break the concrete into manageable pieces for removal from the building. Concrete was removed from the area proceeding west to east, beginning with the first of two layers

(approximately 6 inches) making up the total 10-inch thickness. Concrete debris was transported out of the building for staging in the courtyard by a skid steer with a front-loading bucket.

During removal of the concrete in the northwest section of the soil management area, bright yellow, green and purple staining was observed along existing fractures in the upper layer of concrete. Stained concrete was segregated and placed in 20-cubic yard roll-off boxes staged in the courtyard outside the building for removal and disposal as listed hazardous waste material. Concrete that was not visibly stained was staged on plastic sheeting in the courtyard adjacent to the pile of staged concrete from the outdoor soil management areas. Also, the concrete from the 1997 investigation which was temporarily staged on plastic sheeting at the east end of the East Shop was moved to the staging area in the courtyard. The visibly-stained concrete was placed in a roll-off box while the unstained concrete was staged in the pile with the other concrete floor debris removed from the East Main Plater area.

Upon removal of the lower layer of concrete, two former process piping corridors were uncovered, one immediately west of the grade beam approximately 20 feet east of the west boundary of the removal area, and one approximately 10 feet east of the grade beam. The former process piping encountered to the west of the grade beam was partially visible through holes in the concrete floor created during the 1997 site investigation. During concrete coring activities in preparation for advancement of soil boring SB-28, one of the former process pipes was cut and bright purple liquid (plating waste) was observed issuing from the severed pipe in the sidewall of the concrete corehole, and the planned soil boring was therefore relocated.

After removal of the concrete in the west process piping area, the remaining purple liquid was drained from the former process piping, and solidified in a bucket with absorbent material, for disposal with the concrete debris as hazardous waste. The former process piping was cut into three foot long sections and also placed in the roll-off box for offsite disposal. Bright yellow, green and purple staining was also observed on the bottom of the concrete exposed at the north end of the piping corridor approximately two feet from the north wall of the Main Street Building. The stained concrete in this location could not be removed due to the close proximity to the north wall. No evidence could be found at this location that the former process piping continued beneath the concrete to the north of the removal area. At the south boundary however, former process piping was observed to continue beyond the removal area beneath the southern concrete cut. A section of

severed piping (assumed to be former process piping based on alignment and location) approximately 5 feet in length was visible through a hole in the concrete floor immediately north of the south wall of the Main Street Building created during the 1997 site investigation. Visual investigation of this area uncovered a former sanitary sewer pipe (3.5-inch diameter cast iron) and a former water line (1.5-inch copper) in addition to the former process piping. It was determined that the former process pipe and the former sanitary sewer pipe extended to a 90 degree elbow at the south wall and day-lighted through the floor on the north side of the south wall ending in a stub. No further evidence of the water line could be found south of the removal area. No staining on the soil or piping was observed in the location where the former process piping area was also removed and placed in the roll-off box for offsite disposal with the concrete debris as hazardous waste.

The section of piping encountered beneath the lower layer of concrete to the east of the grade beam was discovered to be filled with concrete and no staining was observed on the soil, piping or lower concrete in this area. Also in the section of the floor removal area east of the grade beam, approximately 10, 15 and 20 feet north of the south concrete cut, three linear bodies of concrete and steel in excess of 18 inches thick, approximately one to three feet in width and 14.5 to 22.5 feet in length oriented east-west were encountered beneath the upper layer of concrete floor. These features were determined to be historical structural elements possibly related to the building's former usage. Due to the thickness of these structures and their steel reinforcement, removal was not possible or practical at this time and they were therefore left in place. There was no evidence of staining from plating wastes on the concrete left in place.

During concrete coring activities in preparation for advancement of soil boring SB-27 in the northeast corner of the removal area, pea gravel saturated with water was encountered immediately beneath the concrete floor. Advancement of SB-27 confirmed that the saturated pea gravel extended to a depth of 6 feet bgs and ended at what was interpreted to be a concrete slab (based on drilling refusal and small concrete fragments observed in the sampler). Further investigation of this area during floor removal revealed a rectangular outline approximately 8 feet wide and 13 feet long, framed with steel I-beams. This information, in conjunction with subsurface observations and the historical drawing, indicated that a concrete sump or similar structure is present at this location, shown as the East Main Sump on **Figure 2**. Based on the characteristics of this feature, it was determined that removal would not be practical at this time, and therefore the concrete floor in

the area of SB-27 was left in place. However, there was no evidence of stained concrete in this area.

Upon final completion of concrete and stained soil removal, AST graded the surface of the exposed soil and installed a permeable woven geo-textile fabric over the soil to distinguish the area visually in case of later removal. AST then placed approximately 50 tons of dense grade aggregate (DGA) into the floor removal areas, in a layer approximately 6 inches thick and ramped up at the edges to the level of the existing concrete floor to facilitate ease of travel for equipment during future demolition activities. A copy of the DGA order/delivery weight ticket is provided in **Appendix F4**.

4.0 SOIL SAMPLING PROGRAM

4.1 PLATER LOCATION AND SURVEYING

The locations of the soil management areas and historic sampling points, as presented in the *Management Plan* (MACTEC, May 20, 2010) and the *Work Plan* (MACTEC, September 14, 2010) were based on maps presented in previous consultants' reports, and on a sketch map associated with a KDWM memo documenting investigations performed in early 1997. During clearing of vegetation and concrete debris in the outdoor courtyard, AST uncovered a below-grade brick wall that was visible in photographs taken by the KDWM during the 1997 investigations. Due to an apparent discrepancy in the location of this wall, MACTEC requested and KDWM provided (on September 29, 2010) the historic site plan used to guide the 1997 investigations. The plan was of poor quality, and the title and date were not legible (a copy is reproduced in **Appendix B**). However, it was possible to match this historic plan to the outlines of the buildings on the most current KYTC plan, and to make out the locations of the former platers (as well as the retrofitted wastewater treatment plant, hand-drawn onto the plan by an unknown party).

Based on this plan and the subsurface features encountered during site clearing, MACTEC adjusted the soil boring locations to better match up with the likely pre-demolition locations of the platers. MACTEC submitted a revised map of the proposed soil boring locations to the KDWM by email on September 30, 2010. The revised drawing was approved by Jeff Grow of the KDWM by email the same day. The final soil boring locations, shown on **Figure 2**, were in the same locations as the map approved on September 30, except where they had to be adjusted due to the presence of field obstructions.

On September 29 and October 1, 2010, Endris Engineering, PSC (Endris), under subcontract to MACTEC, was on-site to perform surveying services. On September 29, 2010, Endris surveyed the top-of-casing and ground surface elevations for the four existing groundwater monitoring wells, as well as the below-grade brick wall uncovered in the vicinity of Plater #3. In addition, Endris marked the approximate edge of the future right-of-way (ROW) for the expansion of Interstate 65, based on KYTC plans and control point data provided by QK4 (design consultant to KYTC) at the

request of John Sacksteder of Community Transportation Solutions (General Engineering Consultant, Louisville - Southern Indiana Ohio River Bridges Project) on September 14, 2010.

Endris returned to the site on October 1, 2010, after approval of the revised boring map by the KDWM, to mark the approximate locations of the former platers in the soil management areas, as well as the 35 planned soil boring locations. Twenty-five soil boring locations were marked in the open courtyard area, and ten soil boring locations were marked inside the Main Street Building. Photographs of the surveyed plater and soil boring locations are included in **Appendix A**.

4.2 FIELD SAMPLING METHODS

Soil sampling activities were conducted from October 4 through October 7, 2010. The Soil Sampling Program focused on three areas of the property formerly occupied by plating lines and designated as soil management areas in the *Management Plan*. These areas and the approximate locations of the former platers (the Circular Saw Plater, Plater #2, Plater #3 and the East Main Plater) are shown on **Figure 2**. A total of 36 soil borings were installed at the site during this investigation, including 23 borings to a total depth of 10 feet below ground surface (bgs), 12 borings to a total depth of 20 feet bgs, and one boring that encountered a subsurface sump and refusal at 6 feet bgs. A total of 25 borings (SB-1 to SB-25) were advanced in the two outdoor soil management areas, including eight 20-foot borings and seventeen 20-foot borings. A total of 11 borings (SB-26 to SB-36) were advanced inside, in the East Main Plater area, including four 20-foot borings, six 10-foot borings, and one 6-foot boring.

Three soil samples were collected for laboratory analysis from the 10-foot deep borings, and four from the 20-foot deep borings. The intervals to be sampled in each boring (0-2 feet, 2-5 feet, 5-10 feet, and 10-20 feet in the deeper borings) were pre-selected for consistency with sampling intervals used by the consultant for the KYTC on other properties in the future Interstate ROW. Due to the presence of the concrete floor in the Main Street Building that was approximately 10 inches (0.8 feet) thick in the area of the former East Main Plater, the uppermost interval sampled in this area (reported as 0-2 feet) was actually from 0.8 to 2 feet bgs.

At the locations designated for soil borings inside the Main Street Building, a coring machine was used to first advance a six-inch corehole through the concrete floor. To prevent cross-

contamination between the shallow soils immediately below the floor and deeper soils, the shallow soils were first excavated down to 2 feet using a post-hole digger, decontaminated between borings. The hand-dug materials were placed on plastic, and representative aliquots from these materials were composited into a sample representing the uppermost interval for each boring location. A clean 4-inch polyvinyl chloride (PVC) sleeve was then placed into the hand-dug hole, and deeper soil samples (below 2 feet bgs) were collected through the sleeve using direct push technology (DPT) methods.

The soil borings were advanced using a Geoprobe 7720DT track-mounted, direct push drilling rig equipped with 4-foot long dual-tube sampler and acetate liners, operated by AST. Upon recovery of each sample, a MACTEC geologist described the soil on a boring log form, recording physical characteristics of the soil including color, grain-size, consistency and moisture. Soil boring logs are provided in **Appendix C**.

In each of the pre-designated sampling intervals, several representative aliquots were removed from the acetate sample liner and placed into a clean stainless steel mixing bowl by the field geologist wearing disposable nitrile sampling gloves and using a clean plastic trowel. The soil was then thoroughly mixed and transferred to clean, laboratory provided, 9-ounce soil jars with Teflon-lined lids, and stored in a cooler with ice pending shipment to the analytical laboratory.

All sampling equipment was thoroughly decontaminated using an Alconox and potable water solution and a distilled water rinse between each sample collected. As specified in the soil sampling plan, one equipment blank sample per day, consisting of distilled water poured over cleaned sampling equipment, was collected in addition to five duplicate soil samples and 4 matrix spike/matrix spike duplicate (MS/MSD) soil samples. The locations and intervals from which the duplicate and MS/MSD soil samples were to be collected were not pre-determined. These locations and intervals were chosen by the field geologist at the time of sampling based on visual characteristics observed in the soil samples as well as with the intent to generally provide equal field quality control (QC) coverage to each area sampled with respect to location and depth interval. Photographs of the soil boring advancement and soil sampling activities are included in **Appendix A**.

4.3 GENERAL DESCRIPTION OF SUBSURFACE MATERIALS

A total of 36 soil borings (SB-1 through SB-36), including 25 outside and 11 inside, were advanced at the site, at locations shown on the map in **Figure 2**.

Subsurface soils observed during advancement of soil borings SB-1 through SB-25, located in the courtyard surrounding the former Circular Saw Plater, Plater #2 and Plater #3, generally consisted of loose, silty sand and sandy silt with concrete and brick fragments (demo debris/fill material) overlying apparently native soils consisting of silty/sandy clay above fine to medium-grained sand. An average of one to two feet of fill material was observed in soil borings SB-1 through SB-25. However, fill materials were observed all the way to the boring termination depth of 10 feet in soil borings SB-22 and SB-23, on the western edge of the sampled areas.

The physical characteristics and general stratigraphic sequence of subsurface soils observed during advancement of soil borings SB-26 through SB-36 (located inside the Main Street Building in the area of the East Main Plater) correlated closely with soil borings SB-1 through SB-25 to the maximum observed depth of 20 feet bgs. However, the soil in the 0.8-2.0 feet bgs interval in the Main Street Building (immediately below the base of the concrete floor) was a very dark brown to black silty sand fill material, with some sparse brick and steel fragments.

Native soils below the fill, both outside and inside the building, were found to consist of yellowishbrown silty/sandy clay extending to a depth of seven to eight feet bgs, ending at a sharp contact with yellowish-brown, fine to medium-grained sand. The silty/sandy clay above the contact with the underlying sand unit is overall medium stiff, dry and brittle nearest ground surface, and appeared to exhibit an increase in moisture content with depth. In some borings, a gradual transition from silty to more sandy clay and/or silt was observed in the shallow silty clay interval, with very moist, conditions commonly noted immediately above the contact with the underlying sand unit. The underlying sand unit consisted of yellowish-brown to brown, fine to mediumgrained sand with trace fine gravels, consistently moist, extending to the maximum observed depth of 20 feet bgs. Sporadic, thin, interbedded silt and/or silty clay lenses were observed in the interval from 16 to 20 feet bgs and were frequently noted to be very moist to wet. Saturated soil conditions or groundwater were not observed in any of the borings installed in the courtyard area.

5.0 SOIL ANALYTICAL RESULTS

Between October 4 and October 7, 2010, a total of 119 soil samples (plus field quality control samples) were collected at the site. The soil samples were shipped under chain of custody to ESC Lab Sciences (ESC) in Mt. Juliet, Tennessee for analysis. All of the samples were analyzed for the COCs in soil at the site (chromium, hexavalent chromium and lead), as total metals. In addition, after review of the total metals results, selected samples were extracted following the Resource Conservation and Recovery Act (RCRA) Toxicity Characteristic Leachate Procedure (TCLP), and the extracts were analyzed for chromium and lead. A copy of the laboratory analytical report and chain of custody form for the soil samples soil is provided in **Appendix D**. The analytical results for the total metals and the TCLP metals analyses are summarized in **Tables 1 and 2**, respectively, and are illustrated graphically on the maps in **Figures 3 through 8**. Additional details and results of the analyses are discussed below.

5.1 QUALITY CONTROL SAMPLES

Quality control samples consisting of field duplicate and equipment rinsate blanks were collected and submitted for laboratory analysis as part of the soil sampling program. In addition, MACTEC requested that the laboratory perform matrix spike and matrix spike duplicate analyses on four of the soil samples collected and submitted for analysis.

A total of five field duplicate samples, identified as DUP-1 through DUP-5 (as shown on **Table 1**), were collected and submitted for chromium, hexavalent chromium, and lead analysis. The field duplicate sample is intended to be a split of the same material as the original sample, and comparison of the results from field duplicate samples yields information on the precision of the analysis relative to homogeneity of the material sampled as well as sample handling, shipping, storage, preparation, and analysis. Duplicate sampling is also used to identify possible field variations. DUP-1 through DUP-5 were duplicates of samples SB-10 10-20 FT, SB-15 2-5 FT, SB-22 5-10 FT, SB-26 2-5 FT, and SB-33 0-2 FT, respectively. Relative percent difference (%RPD) between the two sample results is often used as a quantitative indicator of quality control for repeated measurements where the outcome is expected to be the same. The %RPD of two values can be calculated by dividing the absolute difference of the two values by the average value

of the same two values and multiplying by 100. A zero %RPD is optimal, and the higher the percent value, the lower the precision of the analysis. The %RPD for chromium in the five duplicate samples ranged from 33.3% in DUP-2 to 106.7% in DUP-1. The %RPD for hexavalent chromium in duplicate samples DUP-3 and DUP-4 was 0%. The %RPD for hexavalent chromium in the other duplicate samples ranged from 10.2% in DUP-5 to 57.4% in DUP-1. The %RPD for lead in the five duplicate samples ranged from 9.52% in DUP-4 to 70% in DUP-3. In this case, the differences between duplicate sample results are thought to represent primarily the heterogeneity in the material sampled at each location.

A total of four equipment rinsate blanks (one per each day of soil sampling), identified as EB-1 through EB-4, were collected and submitted for chromium and lead analysis. Hexavalent chromium analysis was not performed on the equipment blanks due to the short holding time for this analysis in water. The equipment rinsate blank samples were collected by pouring laboratory-supplied deionized water over cleaned sampling equipment including stainless steel mixing bowls and a plastic trowel. The rinsate blanks are analyzed to show that field decontamination procedures are sufficient, and that no cross-contamination occurred. Neither chromium nor lead was detected above laboratory reporting limits in any of the four equipment rinsate blank samples.

Matrix spike/matrix spike duplicate (MS/MSD) samples are two aliquots of an environmental sample that are spiked with known concentrations of target analytes, in this case chromium, hexavalent chromium, and lead. The percent recovery of the target analytes has statistical control limits indicating whether the analytical process is "in control." If any recoveries are outside the method control limits, the sample that was selected for MS/MSD analysis is qualified in the laboratory report. MACTEC indicated on the laboratory chain of custody forms four soil samples, SB-16 2-5 FT, SB-23 5-10 FT, SB-30 2-5 FT, and SB-35 10-20 FT, for MS/MSD analysis. Sample SB-16 2-5 FT was flagged with "J3" and "V" for chromium and lead, meaning these analytes in the MS/MSD sample were outside of established criteria. The "J3" flag indicates the associated quality control batch was outside of the established quality control range for precision and the "V" flag indicates the sample concentration was too high to evaluate accurate spike recoveries. Sample SB-23 5-10 FT was flagged with "J3" and "J6" for chromium and "V" for lead. The "J6" flag indicates the sample matrix interfered with the ability to make an accurate determination and that the spike value is low. No qualifiers were reported by the laboratory for MS/MSD samples SB-30 2-5 FT and SB-35 10-20 FT. The relative low precision denoted by

results for some of the MS/MSD samples again is considered to be related to the heterogeneity of the material sampled (consisting of both native soils and demo/fill materials), as well as the wide range in concentrations for the COC metals analyzed.

5.2 TOTAL METALS RESULTS

Soil samples were analyzed for total chromium by United States Environmental Protection Agency (USEPA) Method 6010B, hexavalent chromium by USEPA Method 3060/7196A, and total lead by USEPA Method 6010B. Analytical results are summarized in **Table 1**, where they are compared to the USEPA Region 9 Industrial and Residential Preliminary Remediation Goals of 2002 (PRGs) for each of the COCs.

5.2.1. Chromium

Chromium was detected at concentrations above the laboratory report detection limit (RDL) of 0.50 milligrams per kilogram (mg/kg) in all of the soil samples submitted for analysis. The concentration of chromium in soil samples SB-1 5-10 (360 mg/kg), SB-13 2-5 (330 mg/kg), SB-15 0-2 (240 mg/kg), SB-20 2-5 (390 mg/kg) and SB-29 0.8-2 (310 mg/kg) exceeded the residential PRG of 210 mg/kg.

The concentration of chromium in soil samples SB-8 0-2 (4000 mg/kg), SB-8 2-5 (1100 mg/kg), SB-8 5-10 (830 mg/kg), SB-16 0-2 (990 mg/kg), SB-16 2-5 (480 mg/kg), SB-17 0-2 (470 mg/kg), SB-20 0-2 (580 mg/kg), SB-28 0.8-2 (570 mg/kg) and SB-32 0.8-2 (540 mg/kg) exceeded the industrial PRG of 450 mg/kg. **Figure 3** illustrates the chromium soil analytical results for the inside borings associated with the East Main Plater. **Figure 6** illustrates the chromium soil analytical results for the chromium soil analytical results for the outside borings associated with Platers #2 and #3 and the Circular Saw Plater in the courtyard area.

5.2.2. Hexavalent Chromium

Hexavalent chromium was not detected at concentrations above the laboratory report detection limit (RDL) of 2.0 mg/kg in 43 of the 132 total samples submitted for analysis. The concentration of hexavalent chromium in soil samples SB-1 2-5 (72 mg/kg), SB-1 5-10 (< 50 mg/kg), SB-2 5-10

(38 mg/kg), SB-13 2-5 (61 mg/kg), SB-19 2-5 (31 mg/kg), SB-25 2-5 (31 mg/kg), SB-28 0.8-2 (52 mg/kg), and SB-28 2-5 (61 mg/kg) exceeded the residential PRG of 30 mg/kg.

The concentration of hexavalent chromium in soil samples SB-8 0-2 (540 mg/kg), SB-8 2-5 (270 mg/kg), SB-8 5-10 (180 mg/kg), SB-14 2-5 (87 mg/kg), SB-28 5-10 (120 mg/kg), SB-29 0.8-2 (140 mg/kg) and SB-29 2-5 (150 mg/kg) exceeded the industrial PRG of 64 mg/kg. **Figure 4** illustrates the hexavalent chromium soil analytical results for the inside borings associated with the East Main Plater. **Figure 7** illustrates the chromium soil analytical results for the outside borings associated with Platers #2 and #3 and the Circular Saw Plater in the courtyard area.

5.2.3. Lead

Lead was detected at concentrations above the laboratory report detection limit (RDL) of 0.25 mg/kg in all of the soil samples submitted for analysis. The concentration of lead in soil samples SB-3 2-5 (500 mg/kg), SB-22 2-5 (450 mg/kg), SB-22 5-10 (540 mg/kg), and SB-23 2-5 (420 mg/kg) exceeded the residential PRG of 400 mg/kg.

The concentration of lead in soil sample SB-32 0.8-2 (2900 mg/kg) exceeded the industrial PRG of 750 mg/kg. **Figure 5** illustrates the lead soil analytical results for the inside borings associated with the East Main Plater. **Figure 8** illustrates the lead soil analytical results for the outside borings associated with Platers #2 and #3 and the Circular Saw Plater in the courtyard area.

5.3 TCLP METALS

In accordance with the *Work Plan for Initial Removal Activities* dated September 14, 2010, soil samples with concentrations of total lead, total chromium, or both exceeding values that are equal to or greater than 20 times the Land Disposal Restriction limits (20xLDR) were intended to be extracted by TCLP and analyzed for lead and chromium. A total of 39 soil samples exceeded the 20xLDR for either lead or chromium, or both. One sample (SB-21 0-2 FT) with a total lead concentration above the 20xLDR was inadvertently omitted from the list of soil samples for TCLP analysis. However, based on the total lead concentration of this sample and the TCLP lead concentration of other samples analyzed with similar or greater total lead concentrations than detected in sample SB-21 0-2 FT, the TCLP lead concentration of SB-21 0-2 FT is likely to fall

within the range of the samples analyzed for TCLP lead. Additionally, the laboratory mistakenly ran TCLP analysis on one sample which did not exceed the 20xLDR for lead or chromium (SB-16 5-10 FT). Therefore, a total of 39 samples were analyzed for TCLP lead and chromium. A copy of the laboratory analytical report and chain of custody form for TCLP soil samples is provided in **Appendix D**. The analytical results are summarized in **Table 2** and compared against the regulatory limit for the TCLP toxicity characteristic, as well as the LDR limits.

TCLP lead was detected above the laboratory reporting limit of 0.05 milligrams per liter (mg/l) in only one sample out of 39 analyzed: SB-23 2-5 FT. The reported TCLP lead concentration of 0.11 mg/l in this sample is more than an order of magnitude below the TCLP lead regulatory limit of 5.0 mg/l.

TCLP chromium was detected above the laboratory reporting limit of 0.05 mg/l in 26 of the 39 soil samples analyzed. The detected concentrations of TCLP chromium ranged from 0.052 mg/l in sample SB-17 0-2 FT to 8.8 mg/l in sample SB-8 0-2 FT. The concentration of TCLP chromium exceeded the TCLP limit of 5.0 mg/l in only two samples: SB-8 0-2 FT (8.8 mg/l) and SB-8 2-5 FT (8.0 mg/l). The results in these two samples also exceeded the LDR limits of 7.5 mg/l for lead and 6.0 mg/l for chromium. These two samples, collected from a single soil boring (SB-8) in the former circular saw plating area, directly east of the in-ground concrete tank, were the two samples with the highest concentrations of (total) chromium and hexavalent chromium.

It can be concluded that most of the soil beneath the former plating areas would not be hazardous by the toxicity characteristic, nor would it require special treatment prior to landfilling if it were excavated. However, one "hot spot" was identified in the area of SB-8 where chromium results exceeded the LDR limits.

5.4 SUMMARY

The soil analytical results are illustrated graphically in **Figures 3 through 8**. The first three (**Figures 3 through 5**) show the results for chromium, hexavalent chromium and lead, respectively, in the area of the East Main Plater inside the building. On each map, the results for all samples from the boring are listed next to the boring, and each boring is color-coded according to the highest concentration reported for the samples from that boring. In the East Main Plater

area, only three borings (SB-28, SB-29, and SB-30), all located in the northwest portion of the area, had metals concentrations exceeding the residential PRGs. The lead exceedance was limited to one sample (SB-32 0-2 FT), and may be related to fill/debris in the shallow sample. Chromium and/or hexavalent chromium exceedances of the residential PRGs were detected in several samples from the three borings, and concentrations were highest in the northernmost borings (SB-28 and SB-29). Based on visual observations, plating waste impacts in this area may extend under the north wall of the building. In SB-28, the hexavalent chromium result in the bottom sample, from 10-20 feet bgs, exceeded the residential PRG, but in the other two borings, residential PRG exceedances were limited to the top 5 feet.

Figures 6 through 8 illustrate the results for chromium, hexavalent chromium and lead, respectively, in the outdoor courtyard, in the areas of the former Platers # 2 and #3 and the Circular Saw Plater. Exceedances of the residential PRGs for chromium and hexavalent chromium appear to cluster in two areas, along the subgrade brick wall or footer that runs approximately between former Platers # 2 and #3 (SB-13 to SB-17, SB-19, SB-20 and SB-25), and east-northeast of the inground concrete former wastewater treatment tank (SB-1, SB-2 and SB-8). In the first area, the occurrence of concentrations above the residential PRGs appears to be limited to 5 feet bgs and above. In the second area, exceedances of the residential PRGs may extend below 10 feet bgs in SB-1 and SB-2 (both shallow borings terminating at 10 feet), and appear to stop at 10 feet in boring SB-8.

The distribution of lead exceedances in the courtyard areas (**Figure 8**) is significantly different than the distribution of chromium exceedances (**Figures 6 and 7**). Exceedances of the residential PRG for lead occurred in three borings, SB-22 and SB-23on the west side, and SB-3 on the east. Examination of the soil boring logs (**Appendix C**) indicates that all of the samples with lead exceedances are associated with fill material consisting of sand and silt with crushed demolition debris (concrete and brick fragments) and furnace slag fragments. It can be concluded that the chromium exceedances are most likely associated with plating waste impacts, but that the lead exceedances are associated with the presence of fill rather than plating waste impacts.

An overview of the soil analytical results for all three of the Management Areas is provided in **Figure 9**. The stippled areas in the three boxes indicate the areas of soil apparently impacted by plating wastes at levels that exceed the residential PRGs, down to about 5 feet bgs, or deeper in

some cases. The soil outside these areas does not exceed residential PRGs for chromium or hexavalent chromium.

Three borings outside the stippled areas (marked in blue on **Figure 9**) yielded samples exceeding the residential PRG for lead. These exceedances are not believed to be associated with plating waste impacts. Of the 39 samples analyzed for TCLP lead, only one had a detectable level of lead in the extract, at a concentration (0.11 mg/l) more than an order of magnitude below the TCLP limit for lead (5.0 mg/l).

6.0 WASTE CHARACTERIZATION AND DISPOSAL

This section describes the activities associated with each of the waste streams generated in the investigation and removals that were conducted at the site in September-November 2010, including staging, characterization and disposal.

6.1 CONCRETE DEBRIS

The following types of concrete debris were moved and/or removed as part of MACTEC's activities in September-November 2010:

- 1. Concrete debris removed from the floor of the Main Street building in the vicinity of the East Main Plater, with visible evidence of staining from plating wastes. This debris was loaded directly into two lined roll-off boxes (20 cubic yards each) and removed from the site by Heritage Environmental Services (Heritage) as hazardous waste (F007), on October 14 and 15, 2010, for stabilization at the Heritage plant in Indianapolis, Indiana, and ultimate disposal at the Heritage Subtitle C landfill in Roachdale, Indiana. Disposal documentation for this waste is provided in **Appendix F1**.
- 2. Concrete debris, unstained, removed from the floor of the Main Street building in the vicinity of the East Main Plater, and stockpiled in the southern portion of the open courtyard. This is the debris generated in the floor removal that showed no visual evidence of staining from plating wastes. (Estimated quantity: 100 tons).
- 3. Concrete debris, unstained, removed from the exterior soil management areas (Circular Saw Plater, Plater #2 and Plater #3), and stockpiled in the southern portion of the open courtyard. None of this debris showed any visual evidence of staining from plating wastes. (Estimated quantity: 60 tons).

The concrete demolition debris staged in two piles in the open courtyard showed no visual evidence of staining from plating wastes. Composite samples were collected separately from each of the two piles by MACTEC personnel on October 15, 2010. One sample was composited from the pile of debris from the interior East Main Plater area, and identified as Inside Floor Pile. The other sample was composited from the pile of debris from the exterior plater areas, and identified as Outside Concrete Pile. A hammer drill was used to bore eight holes in each pile, approximately two inches deep, into different concrete slabs within the pile. The sampled slabs were distributed across the entire pile, and across a representative range of the different colors/shades and degrees of weathering within the piled concrete. The pulverized concrete material obtained from the eight

boreholes, in approximately equal amounts, was combined into one composite sample per pile. Photographs of the concrete debris pile characterization sampling are included in **Appendix A**.

The two composite concrete samples were shipped to ESC for extraction following TCLP, and analysis of the eight RCRA metals in the TCLP extract, by United States Environmental Protection Agency (USEPA) Method 1311/6010B/7470A. A copy of the laboratory analytical report and chain of custody form for the samples is provided in **Appendix E**, and **Table 3** summarizes the results. TCLP barium and TCLP chromium were detected above laboratory reporting limits in both the composite samples. In addition, TCLP selenium was detected above the laboratory reporting limit in the Inside Floor Pile sample. No TCLP metals were detected in either sample above the TCLP regulatory limits, indicating this material is non-hazardous on the basis of the toxicity characteristic.

6.2 DRUMMED SOIL

Two drums of soil waste were generated in the Soil Sampling Program performed in the former plating areas from October 4 through 7, 2010. Drummed materials included drill cuttings and excess soil samples not used for analytical testing. A third drum of waste was generated in abandoning monitoring wells W-2 and W-3, located inside near the former East Main Plater, and contained soil as well as bentonite and PVC. In addition, one 5-gallon bucket of soil that had been retained as a composite for possible additional testing was disposed at the same time. These drummed wastes were be manifested as hazardous waste (F007), and removed from the site by Heritage on December 17, 2010 for stabilization at the Heritage plant in Indianapolis, Indiana, and ultimate disposal at the Heritage Subtitle C landfill in Roachdale, Indiana. Disposal documentation for this waste is included in **Appendix F2**.

6.3 SLUDGES AND SUMP BOTTOM MATERIALS

Two drums of solid and wet material were generated in cleaning the East Shop trenches and sumps, between September 27 and 30, 2010. These materials included wet sludges, iron scaling and fine woody roof debris that had accumulated in the trenches.

On September 30, 2010 MACTEC personnel collected a sample of sludge material from one of the drums, labeled Drum 1. A sample of material was collected from the bottom of the East Shop Sump the same day (see Section 2.3 above). The two samples were shipped under chain of custody to ESC in Mt. Juliet, Tennessee for laboratory analysis. The sample from the drum (identified as Drum 1) was analyzed for TCLP volatile organic compounds (VOCs) by USEPA Method 1311/8260B, TCLP semivolatile organic compounds (SVOCs) by USEPA Method 1311/8270C and the eight RCRA metals (TCLP) by USEPA Method 1311/6010B/7470A. The sample from the sump (identified as East Shop Sump), was analyzed for VOCs by USEPA Method 8260B, SVOCs by USEPA Method 8270C, and 8 RCRA Metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) as totals by USEPA Method 6010B/7471. The East Shop Sump was also subsequently also analyzed for the eight RCRA metals (TCLP) by USEPA Method 1311/6010B/7470A.

A copy of the laboratory analytical report and chain of custody form for the sludge samples is provided in **Appendix E**, and the analytical results are summarized in **Table 4**. For comparison, **Table 4** includes the TCLP limits and the Industrial and Residential PRGs and for each constituent of concern.

No TCLP VOCs or SVOCs were detected above laboratory reporting limits in sample Drum 1. TCLP barium and TCLP selenium were detected at concentrations above the laboratory reporting limits but below the TCLP regulatory levels and none of the other TCLP metals were detected. Therefore, the waste in Drum 1 was non-hazardous based on the toxicity characteristic. However, the drummed wastes were disposed as listed hazardous wastes for consistency with the approach proposed in the Work Plan (September 14, 2010).

In the East Shop Sump sample, all eight RCRA metals (as totals) were detected above laboratory reporting limits. Lead was reported at a concentration of 700 mg/kg, exceeding the residential soil PRG of 400 mg/kg but below the industrial soil PRG of 750 mg/kg. Arsenic (13 mg/kg) and chromium (860 mg/kg) were reported at concentrations above the industrial soil PRGs of 1.6 mg/kg and 450 mg/kg, respectively. Most of the RCRA metals were not detected in the TCLP leachate, however. TCLP barium and TCLP lead were detected at concentrations above the laboratory reporting limits but below the TCLP regulatory levels. None of the TCLP metals exceeded TCLP limits in the East Shop Sump sample. It can be concluded that the material left in

the bottom of the East Shop Sump, although it exceeds PRGs for selected metals (arsenic, chromium and lead), is non-hazardous by tocity characteristic for metals.

In the East Shop Sump sample, the VOCs n-Butylbenzene, sec-Butylbenzene, 1,2-Dichlorobenzene, p-Isopropyltoluene, naphthalene, n-Propylbenzene, 1,2,4-Trimethylbenzene, 1,2,3-Trimethylbenzene, 1,3,5-Trimethylbenzene, and total xylenes were detected above laboratory reporting limits but below residential soil PRGs. In addition, the laboratory reported estimated values below the reporting limit for ethylbenzene, isopropylbenzene, methylene chloride, and toluene. No SVOCs were detected above laboratory reporting limits in sample East Shop Sump (however, due to matrix interference, detection limits were elevated following dilution of the sample).

The two drums of sludges and sump bottom materials were manifested as hazardous waste (F007), and removed from the site by Heritage onDecember 17, 2010 for stabilization at the Heritage plant in Indianapolis, Indiana, and ultimate disposal at the Heritage Subtitle C landfill in Roachdale, Indiana. Disposal documentation for this waste is included in **Appendix F2**.

6.4 WASTEWATER

The following wastewaters generated in the cleaning and investigation activities between September 27 and October 8 were containerized and staged onsite prior to disposal:

- 1. Wastewater generated in cleaning the floor trenches and sumps in the East Shop, combined with decontamination water and purge water from sampling monitoring wells W-1 and W-4. (Estimated quantity: 150 gallons, in a polyethylene tank).
- 2. Purge water sampling monitoring wells W-2 and W-3. At the request of the Metropolitan Sewer District (MSD), this purge water was containerized and sampled separately from the other wastewater (Estimated quantity: 10 gallons, in a drum).

In addition, the water and gravel contained in the subsurface sump located east of the former East Main Plater (referred to variously as the East Main Sump and the Bonded Warehouse sump) were evaluated to determine if disposal would be required.

On October 18, 2010, MACTEC personnel collected samples of wastewaters generated during the field activities for waste characterization and disposal purposes. Samples were collected from the

polyethylene tank and the drum described above, and labeled as Poly Tank and Drum 2, respectively. A water sample, identified as BW Sump, was also collected from the sump located east of the former East Main Plater. The water samples were shipped under chain of custody to ESC for laboratory analysis of the parameters required by MSD: pH by USEPA Method 9040C, cyanide by USEPA Method 9012B, Oil & Grease by USEPA Method 1664A, metals (cadmium, chromium, copper, lead, nickel, silver and zinc) by USEPA Method 6010B, Total Toxic Organics (TTO) VOCs by USEPA Method 624, TTO SVOCs by USEPA Method 625, and Organochlorine Pesticides/PCBs by USEPA Method 608.

A copy of the laboratory analytical report and chain of custody form for the wastewater samples is provided in **Appendix E**. The analytical results are summarized in **Table 5**, where they are compared against the USEPA Region 9 tap PRGs and the USEPA National Primary Drinking Water Standards Maximum Contaminant Levels (MCLs).

pH was reported at 10 standard units (S.U.) in sample BW Sump, which is outside the USEPA National Secondary Drinking Water Standard range of 6.5-8.5 S.U.. Cyanide was not detected above laboratory reporting limits in any of the three water samples. Oil and Grease was reported at a concentration of 1.2 mg/l in sample BW Sump and at a concentration of 2.6 mg/l in the water sample from the polyethylene tank, identified as Poly Tank. Both of these results were qualified as estimated values below the laboratory reporting limit. Oil and Grease was not detected above the laboratory reporting limit in the water sample from the drum of purge water, identified as Drum 2.

Trichloroethene (TCE) was detected at concentrations above the laboratory reporting limit in the Poly Tank and Drum 2 samples, and was the only VOC detected in any of the wastewater samples. The reported concentration of TCE in Drum 2 (0.0013 mg/l) exceeds the Region 9 USEPA PRG for tap water of 0.000028 mg/l and the reported concentration of TCE in Poly Tank (0.0068 mg/l) exceeds the both the Region 9 USEPA PRG for tap water and the USEPA MCL of 0.005 mg/l. The TCE is thought to have originated from the monitoring well purge water. Groundwater from all four monitoring wells contains TCE, and purge water was commingled in both wastewater containers. No SVOCs or Pesticide/PCBs were detected above laboratory reporting limits in any of the three water samples.

The contents of the Main Street Sump, adjacent to the former East Main Plater, were evaluated based on the analytical results for the water sample (BW Sump, **Table 5**) and the sample of gravel collected during the soil sampling program (SB-27, **Table 2**). The water sample was found to meet drinking water standards, except for the elevated value of pH, which most likely derives from the contact between this water and the limestone gravel and concrete walls of the sump. The gravel sample was found to contain metal levels below the residential PRGs. Therefore, the contents of the sump should not require special handling, and were left in place.

An Unusual Discharge Request (UDR), accompanied by the laboratory reports for the wastewater, was made to the MSD, to allow discharge of the staged wastewater to the public sewer though an onsite drop box. The UDR was approved by MSD, and the wastewater was discharged on November 22, 2010. A copy of the letter from MSD approving the UDR is provided in **Appendix F3**.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Between September 27 and December 17, 2010, MACTEC on behalf of RBTC accomplished the removal of waste materials from the former Vermont American facility located at 500 East Main Street in Louisville, as outlined in the *Management Plan* (MACTEC, May 20, 2010) and approved in subsequent correspondence with the KDWM. As part of these removal activities, all surface and near-surface debris potentially requiring handing as hazardous waste was removed, including approximately 40 cubic yards of stained concrete, and five drums of soil, debris and sludges. Wastewater generated in the process of cleaning and sampling was discharged to the sewer after approval by MSD, and is no longer present onsite.

As part of the cleaning effort, removal and characterization activities were performed in the East Shop. No plating lines were located in the East Shop. However, the former use of this area of the property is poorly documented. Based on the historic drawing in **Appendix B**, observations made by MACTEC during the cleaning activities, and samples collected from both the East Shop Sump and drummed cleaning wastes, the East Shop appears to have been used primarily for metalworking activities, including metal cutting, grinding and possibly other machining. Although VOCs were detected in the East Shop Sump sample (solid material from the sump bottom after cleaning), they were primarily petroleum-related VOCs, and none exceeded the residential PRGs for soil (**Table 4**). No evidence of historic activities generating listed hazardous waste was observed in the East Shop, and therefore it is recommended that this area continue to be excluded from the identified soil management areas.

A total of 119 subsurface samples of soil and fill materials were collected in the three previously identified soil management areas (**Figure 2**), and analyzed for the soil COCs at the site: chromium, hexavalent chromium, and lead. Based on the results, three soil areas (shown as the stippled areas in **Figure 9**) have been identified as being impacted by plating wastes and still containing chromium above the residential PRG. It is recommended that, for future excavation purposes, the soil in these areas be handled as listed hazardous waste (F007), in accordance with previous KDWM directives.

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Of the 119 soil samples collected, the 39 samples with the highest concentrations were also analyzed for TCLP chromium and lead. Only two of the soil samples analyzed (both from boring SB-8) exceeded the TCLP limits, and only for chromium. Soil Boring SB-8 is located within one of the stippled areas in **Figure 9**, where soil excavated in the future is will be handled as a listed hazardous waste. The other soil and materials tested during the removal activities were below the TCLP limits for metals. Therefore no soil or materials outside the stippled areas would be expected to be handled as characteristically hazardous waste, pending concurrence of the KDWM Hazardous Waste Branch.

A significant amount of pre-existing concrete debris in the courtyard area (approximately 100 tons) had to be moved in order to allow soil sampling in the former plating areas. In addition, more concrete debris (approximately 60 tons) was generated during floor removal inside the Main Street building. Consistent with the *Management Plan*, concrete debris that did not have visible staining typical of plating waste was stockpiled and left onsite. Two composite samples were collected from the two stockpiles of concrete debris, and analyzed for TCLP metals. The results were well below TCLP limits for both samples (**Table 3**), indicating the concrete is non-hazardous based on the toxicity characteristic. Therefore, it is recommended that this debris be handled and removed, if necessary, with other demolition debris generated at the time of building demolition, as non-hazardous solid waste.

In the process of clearing, cleaning, floor removal and soil sampling, several subsurface structures and fill areas were uncovered at locations shown on the map in **Figure 2**, and an initial assessment was made of the material in these areas:

- The Main Street Sump (a subgrade concrete tank in the Main Street building immediately east of the former East Main Plater) was found to contain clean water and gravel. No special handling is recommended in case of future removal.
- The East Shop Sump contained sludge-like material which was removed and the sump was found to have a hard bottom, most likely consisting of weathered concrete. The material sampled from the bottom of this sump contained metals (arsenic, chromium and lead) at levels exceeding residential PRGs. However, TCLP metals were below TCLP limits and there is no information indicating the sump contained listed waste. Therefore, it is recommended that this material, if removed, be handled as a non-hazardous solid waste and subject to characterization for appropriate handling and disposal. Confirmation sampling is recommended following removal.

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- The large subgrade concrete tank located outside appears to have been installed in the former Circular Saw Plater area as part of a wastewater treatment facility. It is filled with demolition debris, most likely generated from demolition of the buildings formerly located in the courtyard by the current owner in 1990. It is recommended that the material in this tank, if removed, be characterized as a solid waste.
- It is recommended that debris from other subgrade concrete structures (such as grade beams), if they have to be removed from the former plater areas in the future, be handled in the same manner as the concrete debris was handled in the surface removals: if obviously stained with plating wastes, the debris should be handled as listed hazardous waste. If not, it should be handled consistently with other demolition debris on the property.
- Based on soil boring observations, some areas of the site are backfilled with soil containing demolition debris and furnace slag materials, similar to the materials found as backfill in the wastewater treatment tank. This is the case in the area of SB-22 and SB-23, on the western edge of the soil investigation area, where fill extends to at least 10 feet bgs, and locally near the surface (usually in the top two feet) in other areas of the site. Lead is detected at concentrations exceeding the PRGs in some of the samples from this fill material. However, lead is almost never detected in the TCLP extracts from these samples, and detections do not exceed the TCLP limit. Therefore, this material would not be characterized as a hazardous waste. This type of fill material is widespread in downtown Louisville and it is recommended that it be handled in a manner that is consistent with the other properties being acquired for construction of the Interstate expansion.

TABLES

				Devementer	Lood	Chromium	Chromium
				Parameter	Lead 6010B	Chromium	Hexavalent 3060A/7196A
				Method		6010B	,
				Units	mg/kg	mg/kg	mg/kg
				Industrial PRG	750	450	64
				Residential PRG	400	210	30
				20 x LDR	150	120	
				ient Background	84.6	40	
Client	Soil	Depth	Lab	Collect			
Sample ID	Boring	BGS	Sample ID	Date			
Outside Platers	CD 1	0.2.57	1 482020 01	10/4/2010	200	53	-2.0
SB-1 0-2 FT	SB-1	0-2 FT	L482930-01	10/4/2010	260	53	<2.0
SB-1 2-5 FT	SB-1	2-5 FT	L482930-02	10/4/2010	13	110	
SB-1 5-10 FT	SB-1	5-10 FT	L482930-03	10/4/2010	7.3	360	< 50 0
SB-2 0-2 FT	SB-2	0-2 FT	L482930-04	10/4/2010	20	18	<2.0
SB-2 2-5 FT	SB-2	2-5 FT	L482930-05	10/4/2010	13	20	<2.0
SB-2 5-10 FT	SB-2	5-10 FT	L482930-06	10/4/2010	7.1	110	38
SB-3 0-2 FT	SB-3	0-2 FT	L482930-07	10/4/2010	23	140	15
SB-3 2-5 FT	SB-3	2-5 FT	L482930-08	10/4/2010	500	160	3.0
SB-3 5-10 FT	SB-3	5-10 FT	L482930-09	10/4/2010	7.4	<mark>55</mark>	18
SB-4 0-2 FT	SB-4	0-2 FT	L482930-10	10/4/2010	22	19	2.6
SB-4 2-5 FT	SB-4	2-5 FT	L482930-11	10/4/2010	13	20	<2.0
SB-4 5-10 FT	SB-4	5-10 FT	L482930-12	10/4/2010	7.6	8.3	7.4
SB-5 0-2 FT	SB-5	0-2 FT	L482930-13	10/4/2010	11	19	<2.0
SB-5 2-5 FT	SB-5	2-5 FT	L482930-14	10/4/2010	13	20	<2.0
SB-5 5-10 FT	SB-5	5-10 FT	L482930-15	10/4/2010	7.3	9.2	<2.0
SB-6 0-2 FT	SB-6	0-2 FT	L482930-16	10/4/2010	19	16	<2.0
SB-6 2-5 FT	SB-6	2-5 FT	L482930-17	10/4/2010	28	20	<2.0
SB-6 5-10 FT	SB-6	5-10 FT	L482930-18	10/4/2010	10	12	<2.0
SB-7 0-2 FT	SB-7	0-2 FT	L482930-19	10/4/2010	56	51	<2.0
SB-7 2-5 FT	SB-7	2-5 FT	L482930-20	10/4/2010	12	27	<2.0
SB-7 5-10 FT	SB-7	5-10 FT	L482930-21	10/4/2010	6.8	190	28
SB-8 0-2 FT	SB-8	0-2 FT	L482930-22	10/4/2010	15	4000	540 V
SB-8 2-5 FT	SB-8	2-5 FT	L482930-23	10/4/2010	11	1100	270
SB-8 5-10 FT	SB-8	5-10 FT	L482930-24	10/4/2010	24	830	180
SB-8 10-20 FT	SB-8	10-20 FT	L482930-25	10/4/2010	3.8	28	3.4
SB-9 0-2 FT	SB-9	0-2 FT	L482930-26	10/4/2010	11	52	8.4
SB-9 2-5 FT	SB-9	2-5 FT	L482930-27	10/4/2010	11	77	17
SB-9 5-10 FT	SB-9	5-10 FT	L482930-28	10/4/2010	7.6	25	2.2
SB-9 10-20 FT	SB-9	10-20 FT	L482930-29	10/4/2010	4.0	18	5.2
SB-10 0-2 FT	SB-10	0-2 FT	L482930-30	10/4/2010	15	79	5.9
SB-10 2-5 FT	SB-10	2-5 FT	L482930-30	10/4/2010	13	64	<2.0
SB-10 2-311 SB-10 5-10 FT	SB-10	5-10 FT	L482930-31	10/4/2010	49	130	4.5
SB-10 10-20 FT	SB-10	10-20 FT	L482930-32	10/4/2010	4.4	28	4.5
DUP-1	SB-10	10-20 FT	L482930-123	10/4/2010	5.4	92	7.4
SB-11 0-2 FT	SB-10	0-2 FT	L482930-123	10/4/2010		120	5.9
SB-11 0-2 FT SB-11 2-5 FT	SB-11 SB-11	2-5 FT	L482930-34 L482930-35	10/4/2010	24	200	17
SB-11 5-10 FT	SB-11	5-10 FT	L482930-36	10/4/2010	8.2	160	16
SB-12 0-2 FT	SB-12	0-2 FT	L482930-37	10/4/2010	12	58	3.8
SB-12 2-5 FT	SB-12	2-5 FT	L482930-38	10/4/2010	15	89	17
SB-12 5-10 FT	SB-12	5-10 FT	L482930-39	10/4/2010	8.6	37	2.6
SB-13 0-2 FT	SB-13	0-2 FT	L482930-40	10/4/2010	14	76 J3, J	
SB-13 2-5 FT	SB-13	2-5 FT	L482930-41	10/4/2010	19	330	61
SB-13 5-10 FT	SB-13	5-10 FT	L482930-42	10/4/2010	11	140	28
SB-14 0-2 FT	SB-14	0-2 FT	L482930-43	10/4/2010	25	87	8.5
SB-14 2-5 FT	SB-14	2-5 FT	L482930-44	10/4/2010	13	140	87
SB-14 5-10 FT	SB-14	5-10 FT	L482930-45	10/4/2010	10	130	15

				Parameter	Lead	Chromium	Chromium Hexavalent
				Method	6010B	6010B	3060A/7196A
				Units	mg/kg	mg/kg	mg/kg
				Industrial PRG	750	450	64
				Residential PRG	400	210	30
				20 x LDR	150	120	
		k	V Canaric Amh	ient Background	84.6	40	
Client	Soil	Depth	Lab	Collect	04.0	40	
Sample ID	Boring	BGS	Sample ID	Date			
SB-15 0-2 FT	SB-15	0-2 FT	L482930-46	10/5/2010	31	240	4.6
SB-15 0-2 FT SB-15 2-5 FT	SB-15	2-5 FT	L482930-40	10/5/2010	13	100	26
DUP-2	SB-15	2-5 FT	L482930-124	10/5/2010	19	140	16
SB-15 5-10 FT	SB-15	5-10 FT	L482930-124 L482930-48	10/5/2010	13	74	20
SB-15 10-20 FT	SB-15	10-20 FT	L482930-48	10/5/2010	6.5	65	8.8
		0-2 FT			76	990	6.3
SB-16 0-2 FT	SB-16		L482930-50	10/5/2010			
SB-16 2-5 FT	SB-16	2-5 FT	L482930-51	10/5/2010	51 J3,		
SB-16 5-10 FT	SB-16	5-10 FT	L482930-52	10/5/2010	12	97	14
SB-16 10-20 FT	SB-16	10-20 FT	L482930-53	10/5/2010	4.9	43	13
SB-17 0-2 FT	SB-17	0-2 FT	L482930-54	10/5/2010	130	470	12
SB-17 2-5 FT	SB-17	2-5 FT	L482930-55	10/5/2010	22	39	11
SB-17 5-10 FT	SB-17	5-10 FT	L482930-56	10/5/2010	9.2	36	7.9
SB-17 10-20 FT	SB-17	10-20 FT	L482930-57	10/5/2010	5.6	26	6.5
SB-18 0-2 FT	SB-18	0-2 FT	L482930-58	10/5/2010	14	23	<2.0
SB-18 2-5 FT	SB-18	2-5 FT	L482930-59	10/5/2010	16	11	<2.0
SB-18 5-10 FT	SB-18	5-10 FT	L482930-60	10/5/2010	7.9	48	8.2
SB-18 10-20 FT	SB-18	10-20 FT	L482930-61	10/5/2010	6.1	70	7.0
SB-19 0-2 FT	SB-19	0-2 FT	L482930-62	10/5/2010	36	70	13
SB-19 2-5 FT	SB-19	2-5 FT	L482930-63	10/5/2010	10	100	31
SB-19 5-10 FT	SB-19	5-10 FT	L482930-64	10/5/2010	7.3	<mark>69</mark>	18
SB-19 10-20 FT	SB-19	10-20 FT	L482930-65	10/5/2010	6.1	42	11
SB-20 0-2 FT	SB-20	0-2 FT	L482930-66	10/5/2010	130	580	14
SB-20 2-5 FT	SB-20	2-5 FT	L482930-67	10/5/2010	29	390	12
SB-20 5-10 FT	SB-20	5-10 FT	L482930-68	10/5/2010	13	150	10
SB-21 0-2 FT	SB-21	0-2 FT	L482930-69	10/5/2010	210	<mark>70</mark>	<2.0
SB-21 2-5 FT	SB-21	2-5 FT	L482930-70	10/5/2010	48	140	4.4
SB-21 5-10 FT	SB-21	5-10 FT	L482930-71	10/5/2010	28	83	8.4
SB-22 0-2 FT	SB-22	0-2 FT	L482930-72	10/5/2010	110	14	<2.0
SB-22 2-5 FT	SB-22	2-5 FT	L482930-73	10/5/2010	450	42	<2.0
SB-22 5-10 FT	SB-22	5-10 FT	L482930-74	10/5/2010	540	72	<2.0
DUP-3	SB-22	5-10 FT	L482930-125	10/5/2010	260	32	<2.0
SB-23 0-2 FT	SB-23	0-2 FT	L482930-75	10/5/2010	130	22	<2.0
SB-23 2-5 FT	SB-23	2-5 FT	L482930-76	10/5/2010	420	20	<2.0
SB-23 5-10 FT	SB-23	5-10 FT	L482930-77	10/5/2010	280 ∨	190 J3, J	5 20
SB-24 0-2 FT	SB-24	0-2 FT	L482930-78	10/5/2010	21	29	<2.0
SB-24 2-5 FT	SB-24	2-5 FT	L482930-79	10/5/2010	19	28	<2.0
SB-24 5-10 FT	SB-24	5-10 FT	L482930-80	10/5/2010	7.9	14	3.4
SB-25 0-2 FT	SB-25	0-2 FT	L482930-81	10/5/2010	12	77	8.7
SB-25 2-5 FT	SB-25	2-5 FT	L482930-82	10/5/2010	12	64	31
SB-25 5-10 FT	SB-25	5-10 FT	L482930-83	10/5/2010	9.2	41	18
Inside Plater	-				-		
SB-26 0-2 FT	SB-26	0-2 FT	L482930-84	10/6/2010	17	11	<2.0
SB-26 2-5 FT	SB-26	2-5 FT	L482930-85	10/6/2010	10	17	<2.0
DUP-4	SB-26	2-5 FT	L482930-126	10/6/2010	11	10	<2.0
SB-26 5-10 FT	SB-26	5-10 FT	L482930-120	10/6/2010	7.9	8.7	<2.0
SB-27 0-2 FT	SB-20	0-2 FT	L482930-80	10/6/2010	5.4	12	<2.0
SB-27 4-6 FT	SB-27	4-6 FT	L482930-128 L482930-87	10/6/2010	9.7	41	2.6

							Chromium
				Parameter	Lead	Chromium	Hexavalent
				Method	6010B	6010B	3060A/7196A
				Units	mg/kg	mg/kg	mg/kg
				Industrial PRG	750	450	64
				Residential PRG	400	210	30
				20 x LDR	150	120	
				ient Background	84.6	40	
Client	Soil	Depth	Lab	Collect			
Sample ID	Boring	BGS	Sample ID	Date			
SB-28 0-2 FT	SB-28	0-2 FT	L482930-88	10/7/2010	19	570	52
SB-28 2-5 FT	SB-28	2-5 FT	L482930-89	10/7/2010	12	200	61
SB-28 5-10 FT	SB-28	5-10 FT	L482930-90	10/7/2010	11	160	120
SB-29 0-2 FT	SB-29	0-2 FT	L482930-91	10/6/2010	30	310	140
SB-29 2-5 FT	SB-29	2-5 FT	L482930-92	10/6/2010	15	200	150
SB-29 5-10 FT	SB-29	5-10 FT	L482930-93	10/6/2010	9.8	45	24
SB-30 0-2 FT	SB-30	0-2 FT	L482930-94	10/6/2010	250	14	<2.0
SB-30 2-5 FT	SB-30	2-5 FT	L482930-95	10/6/2010	13	17	<2.0
SB-30 5-10 FT	SB-30	5-10 FT	L482930-96	10/6/2010	8.9	9.5	<2.0
SB-31 0-2 FT	SB-31	0-2 FT	L482930-97	10/6/2010	100	12	<2.0
SB-31 2-5 FT	SB-31	2-5 FT	L482930-98	10/6/2010	14	19	<2.0
SB-31 5-10 FT	SB-31	5-10 FT	L482930-99	10/6/2010	10	12	<2.0
SB-32 0-2 FT	SB-32	0-2 FT	L482930-100	10/6/2010	2900	540	3.1
SB-32 2-5 FT	SB-32	2-5 FT	L482930-101	10/6/2010	13	74	24
SB-32 5-10 FT	SB-32	5-10 FT	L482930-102	10/6/2010	11	50	12
SB-32 10-20 FT	SB-32	10-20 FT	L482930-103	10/6/2010	8.9	27	7.2
SB-33 0-2 FT	SB-33	0-2 FT	L482930-104	10/7/2010	13	21	2.8
DUP-5	SB-33	0.8-2 FT	L482930-127	10/7/2010	16	52	3.1
SB-33 2-5 FT	SB-33	2-5 FT	L482930-105	10/7/2010	17	55	5.2
SB-33 5-10 FT	SB-33	5-10 FT	L482930-106	10/7/2010	11	42	15
SB-33 10-20 FT	SB-33	10-20 FT	L482930-107	10/7/2010	9.3	22	3.0
SB-34 0-2 FT	SB-34	0-2 FT	L482930-108	10/7/2010	24	19	<2.0
SB-34 2-5 FT	SB-34	2-5 FT	L482930-109	10/7/2010	16	30	3.8
SB-34 5-10 FT	SB-34	5-10 FT	L482930-110	10/7/2010	9.9	37	9.0
SB-34 10-20 FT	SB-34	10-20 FT	L482930-111	10/7/2010	8.4	100	15
SB-35 0-2 FT	SB-35	0-2 FT	L482930-112	10/7/2010	53	13	<2.0
SB-35 2-5 FT	SB-35	2-5 FT	L482930-113	10/7/2010	16	17	<2.0
SB-35 5-10 FT	SB-35	5-10 FT	L482930-114	10/7/2010	14	14	<2.0
SB-35 10-20 FT	SB-35	10-20 FT	L482930-115	10/7/2010	4.7	5.0	<2.0
SB-36 0-2 FT	SB-36	0-2 FT	L482930-116	10/7/2010	350	8.1	<2.0
SB-36 2-5 FT	SB-36	2-5 FT	L482930-117	10/7/2010	16	16	<2.0
SB-36 5-10 FT	SB-36	5-10 FT	L482930-118	10/7/2010	8.7	31	<2.0

Notes:

Prepared by: ALD 10/29/2010 Checked by: TSK 11/01/2010

All values in mg/kg. Detected values shown in **bold.**

Samples shaded in blue were also extracted by TCLP. Analytical results for the TCLP extracts are provided in the following table. Value above the Industrial Preliminary Remediation Goal, USEPA Region 9 2002 (PRG).

Value above the Residential PRG and below the Industrial PRG.

Value above the KY Generic Ambient Background (95th Percentile) and below the Residential PRG.

DUP-X Designates a field dupicate sample of the previously listed sample.

Lab Qualifiers:

J6 The sample matrix interfered with the ability to make any accurate determination; spike value is low

O (ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

V (ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

J3 The associated batch QC was outside the established quality control range for precision.

Table 2Soil Analytical Results (TCLP Metals)500 East Main Street, Louisville, KentuckyMACTEC Project No. 6680-08-9635

				[
				Parameter	TCLP Lead	TCLP Chromium
				Method	6010B	6010B
				Units	mg/l	mg/l
				TCLP Limit	5.0	5.0
				LDR Limit	7.5	6.0
Client	Soil	Depth	Lab	Collect		
Sample ID	Boring	BGS	Sample ID	Date		
Outside Platers	•	•				•
SB-1 0-2 FT	SB-1	0-2 FT	L485755-01	10/4/2010	<0.05	<0.05
SB-1 5-10 FT	SB-1	5-10 FT	L485755-02	10/4/2010	<0.05	0.59
SB-3 0-2 FT	SB-3	0-2 FT	L485755-03	10/4/2010	<0.05	< 0.05
SB-3 2-5 FT	SB-3	2-5 FT	L485755-04	10/4/2010	<0.25	0.11
SB-7 5-10 FT	SB-7	5-10 FT	L485755-05	10/4/2010	<0.05	0.12
SB-8 0-2 FT	SB-8	0-2 FT	L485755-06	10/4/2010	<0.05	8.8
SB-8 2-5 FT	SB-8	2-5 FT	L485755-07	10/4/2010	<0.05	8.0
SB-8 5-10 FT	SB-8	5-10 FT	L485755-08	10/4/2010	<0.05	4.4
SB-10 5-10 FT	SB-10	5-10 FT	L485755-09	10/4/2010	<0.05	<0.05
SB-11 0-2 FT	SB-11	0-2 FT	L485755-10	10/4/2010	<0.05	< 0.05
SB-11 2-5 FT	SB-11	2-5 FT	L485755-11	10/4/2010	<0.05	< 0.05
SB-11 5-10 FT	SB-11	5-10 FT	L485755-12	10/4/2010	<0.05	0.25
SB-13 2-5 FT	SB-13	2-5 FT	L485755-13	10/4/2010	<0.05	0.47
SB-13 5-10 FT	SB-13	5-10 FT	L485755-14	10/4/2010	<0.05	0.48
SB-14 2-5 FT	SB-14	2-5 FT	L485755-15	10/4/2010	<0.05	1.1
SB-14 5-10 FT	SB-14	5-10 FT	L485755-16	10/4/2010	<0.05	0.44
SB-15 0-2 FT	SB-15	0-2 FT	L485755-17	10/5/2010	<0.05	0.080
DUP-2	SB-15	2-5 FT	L485755-38	10/5/2010	<0.05	0.52
SB-16 0-2 FT	SB-16	0-2 FT	L485755-18	10/5/2010	<0.05	0.31
SB-16 2-5 FT	SB-16	2-5 FT	L485755-19	10/5/2010	<0.05	0.18
SB-16 5-10 FT	SB-16	5-10 FT	L485755-20	10/5/2010	<0.05	0.23
SB-17 0-2 FT	SB-17	0-2 FT	L485755-21	10/5/2010	<0.05	0.052
SB-20 0-2 FT	SB-20	0-2 FT	L485755-22	10/5/2010	<0.05	<0.05
SB-20 2-5 FT	SB-20	2-5 FT	L485755-23	10/5/2010	<0.05	0.056
SB-20 5-10 FT	SB-20	5-10 FT	L485755-24	10/5/2010	<0.05	0.070
SB-21 2-5 FT	SB-21	2-5 FT	L485755-25	10/5/2010	<0.05	<0.05
SB-22 2-5 FT	SB-22	2-5 FT	L485755-26	10/5/2010	<0.05	<0.05
SB-22 5-10 FT	SB-22	5-10 FT	L485755-27	10/5/2010	<0.05	0.062
DUP-3	SB-22	5-10 FT	L485755-39	10/5/2010	<0.05	<0.05
SB-23 2-5 FT	SB-23	2-5 FT	L485755-28	10/5/2010	0.11	<0.05
SB-23 5-10 FT	SB-23	5-10 FT	L485755-29	10/5/2010	<0.05	<0.05

Table 2 Soil Analytical Results (TCLP Metals) 500 East Main Street, Louisville, Kentucky MACTEC Project No. 6680-08-9635

				Parameter	TCLP Lead	TCLP Chromium
				Method	6010B	6010B
				Units	mg/l	mg/l
				TCLP Limit	5.0	5.0
				LDR Limit	7.5	6.0
Client	Soil	Depth	Lab	Collect		
Sample ID	Boring	BGS	Sample ID	Date		
Inside Plater						
SB-28 0-2 FT	SB-28	0-2 FT	L485755-30	10/7/2010	<0.05	1.4
SB-28 2-5 FT	SB-28	2-5 FT	L485755-31	10/7/2010	<0.05	1.5
SB-28 5-10 FT	SB-28	5-10 FT	L485755-32	10/7/2010	<0.05	3.9
SB-29 0-2 FT	SB-29	0-2 FT	L485755-33	10/6/2010	<0.05	0.77
SB-29 2-5 FT	SB-29	2-5 FT	L485755-34	10/6/2010	<0.05	2.8
SB-30 0-2 FT	SB-30	0-2 FT	L485755-35	10/6/2010	<0.05	<0.05
SB-32 0-2 FT	SB-32	0-2 FT	L485755-36	10/6/2010	<0.05	0.084
SB-36 0-2 FT	SB-36	0-2 FT	L485755-37	10/7/2010	<0.05	<0.05

Prepared by: TSK 11/04/2010

Checked by: MJC 11/05/2010

Notes:

All values in milligrams per liter (mg/l).

Detected values shown in **bold**.

Value above the TCLP limit (also exceeds LDR limit).

Table 3 Concrete Analytical Results (TCLP Metals) 500 East Main Street, Louisville, Kentucky MACTEC Project No. 6680-08-9635

		Laboratory ID	L484359-01	L48435	59-02
		Field ID	Inside Floor Pile	e Outside Cor	ncrete Pile
	Sa	mple Collection Date	10/15/2010	10/15/	/2010
TCLP Metals	Units	TCLP Limit			
Arsenic	mg/l	5.0	<0.05	<0.25	
Barium	mg/l	100	0.22	0.55	
Cadmium	mg/l	1.0	<0.05	< 0.05	
Chromium	mg/l	5.0	0.084	0.65	
Lead	mg/l	5.0	<0.05	<0.25	
Mercury	mg/l	0.2	< 0.001	< 0.001	
Selenium	mg/l	1.0	0.074	< 0.05	
Silver	mg/l	5.0	<0.05	<0.05	

Notes:

Prepared by: TSK 11/04/2010

Checked by: MJC 11/05/2010

mg/I Milligrams per liter Detected values are indicated in **bold**

	Laboratory ID				-01	L481739-0	02	L482531-01	
			Field ID	Drum	1	East Shop S	ump	East Shop	Sump
	Sc	ample Colle	ction Date	9/30/20	010	9/30/201	.0	9/30/2	010
TCLP Metals	Units	тстр	Limit						
Arsenic	mg/l		.0	<0.05				<0.25	0
Barium	mg/l		.0 00	3.4				18	
Cadmium	mg/l		.0	< 0.05				< 0.25	
Chromium	mg/l		.0	< 0.05				<0.25	
Lead	mg/l		.0	< 0.05				0.32	
Mercury	mg/l		.2	< 0.001					0,J3,J6
Selenium	mg/l	1	.0	0.45				<0.25	
Silver	mg/l	5.0		<0.05				<0.25	
TCLP Volatile Organic Compounds	Units	тсір	Limit						
		0		-0.05					
Benzene	mg/l			< 0.05					
Carbon tetrachloride	mg/l	0.		<0.05					
Chlorobenzene	mg/l		00	<0.05					
Chloroform	mg/l	6	.0	<0.25					
1,2-Dichloroethane	mg/l	0	.5	<0.05					
1,1-Dichloroethene	mg/l	0	.7	<0.05					
2-Butanone (MEK)	mg/l	20	00	<0.5					
Tetrachloroethene	mg/l		.7	<0.05					
Trichloroethene	mg/l	0.		< 0.05					
Vinyl chloride	mg/l		.2	< 0.05					
this chorac		0	.2	10.05		11			
TCLP Semivolatile Organic Compounds	Units	TCLP	Limit						
1,4-Dichlorobenzene	mg/l	7.	.5	<0.1					
2,4-Dinitrotoluene	mg/l		13	<0.1					
Hexachlorobenzene	mg/l		13	<0.1					
Hexachloro-1,3-butadiene	mg/l		.5	<0.1					
Hexachloroethane	mg/l		.0	<0.1					
Nitrobenzene	mg/l		.0	<0.1					
Pyridine	mg/l		.0	<0.1					
3&4-Methyl Phenol	mg/l	40		<0.1					
2-Methylphenol	mg/l		00	<0.1					
Pentachlorophenol	mg/l		00 00	<0.1					
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	mg/l		.0	<0.1 <0.1					
2,4,0 ⁻ 111011010p11010	mg/l	2	.0	۷.1					l
Total Metals	Units	Res. PRG	Ind. PRG						-
Arsenic	mg/kg	0.39	1.6			13			
Barium	mg/kg	5,400	67,000			1400			
Cadmium	mg/kg	37	450			34			
Chromium	mg/kg	210	450			860			
Lead	mg/kg	400	750			700			
Mercury	mg/kg	23	310			0.18			
Selenium	mg/kg	390	5,100			140			
Silver	mg/kg	390	5,100			98			

		Lab	oratory ID	L481739-01	L481739-02	L482531-01
			Field ID	Drum 1	East Shop Sump	East Shop Sump
	S	ample Colle	ction Date	9/30/2010	9/30/2010	9/30/2010
Volatile Organic Compounds	Units	Res. PRG	Ind. PRG			
Acetone	mg/kg	1,600	6,000		<2.5	
Acrylonitrile	mg/kg	0.21	0.49		<0.5	
Benzene	mg/kg	0.60	1.3		< 0.05	
Bromobenzene	mg/kg	28	92		< 0.05	
Bromodichloromethane	mg/kg	0.82	1.8		<0.05	
Bromoform	mg/kg	62	220		< 0.05	
Bromomethane	mg/kg	3.9	13		<0.25	
n-Butylbenzene	mg/kg	240	240		0.11	
sec-Butylbenzene	mg/kg	220	220		0.052	
tert-Butylbenzene	mg/kg	390	390		< 0.05	
Carbon tetrachloride	mg/kg	0.25	0.55		< 0.05	
Chlorobenzene	mg/kg	150	530		< 0.05	
Chlorodibromomethane	mg/kg	1.1	2.6		< 0.05	
Chloroethane	mg/kg	3.0	6.5		<0.25	
2-Chloroethyl vinyl ether	mg/kg				<2.5	
Chloroform	mg/kg	3.6	12		<0.25	
Chloromethane	mg/kg	1.2	2.6		<0.13	
2-Chlorotoluene	mg/kg	160	560		<0.05	
4-Chlorotoluene	mg/kg				< 0.05	
1,2-Dibromo-3-Chloropropane	mg/kg	0.45	2.0		<0.25	
1,2-Dibromoethane	mg/kg	0.0069	0.028		<0.05	
Dibromomethane	mg/kg	67	230		<0.05	
1,2-Dichlorobenzene	mg/kg	370	370		0.079	
1,3-Dichlorobenzene	mg/kg	16	63		< 0.05	
1,4-Dichlorobenzene	mg/kg	3.4	7.9		< 0.05	
Dichlorodifluoromethane	mg/kg	94	310		<0.25	
1,1-Dichloroethane	mg/kg	510	1,700		<0.05	
1,2-Dichloroethane	mg/kg	0.28	0.60		< 0.05	
1,1-Dichloroethene	mg/kg	120	410		< 0.05	
cis-1,2-Dichloroethene	mg/kg	43	150		< 0.05	
trans-1,2-Dichloroethene	mg/kg	69	230		< 0.05	
1,2-Dichloropropane	mg/kg	0.34	0.74		<0.05	
1,1-Dichloropropene	mg/kg				< 0.05	
1,3-Dichloropropane	mg/kg				<0.05	
cis-1,3-Dichloropropene	mg/kg	0.78	1.8		<0.05	
trans-1,3-Dichloropropene	mg/kg	0.78	1.8		<0.05	
2,2-Dichloropropane	mg/kg				<0.05	
Di-isopropyl ether	mg/kg				<0.05	
Ethylbenzene	mg/kg	8.9	20		0.036 J	
Hexachlorobutadiene	mg/kg	6.2	20		< 0.05	
Isopropylbenzene	mg/kg	160	520		0.023 J	
p-IsopropyItoluene	mg/kg				0.068	
2-Butanone (MEK)	mg/kg	7,300	27,000		<0.5	
Methylene Chloride	mg/kg	9.1	21,000		0.025 J	
4-Methyl-2-pentanone (MIBK)	mg/kg	790	2,800		<0.5	
Methyl tert-butyl ether	mg/kg	62	160		<0.05	
Naphthalene	mg/kg	56	190		2.2	
n-Propylbenzene	mg/kg	240	240		0.073	
	1 1115/ NS	L 40	270		0.075	

		Lab	oratory ID	L481739-01	L481739-02	2 L482531-	-01
			Field ID	Drum 1	East Shop Sur	mp East Shop S	Sump
	Se	ample Colle	ction Date	9/30/2010	9/30/2010		
1,1,1,2-Tetrachloroethane	malka	3.2	7.3		<0.05		
	mg/kg						
1,1,2,2-Tetrachloroethane	mg/kg	0.41	0.93		< 0.05		
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	5,600	5,600		< 0.05		
Tetrachloroethene	mg/kg	1.5	3.4		< 0.05		
Toluene	mg/kg	520	520		0.092 J		
1,2,3-Trichlorobenzene	mg/kg				< 0.05		
1,2,4-Trichlorobenzene	mg/kg	650	3,000		< 0.05		
1,1,1-Trichloroethane	mg/kg	1,200	1,200		< 0.05		
1,1,2-Trichloroethane	mg/kg	0.73	1.6		< 0.05		
Trichloroethene	mg/kg	0.053	0.11		< 0.05		
Trichlorofluoromethane	mg/kg	390	2,000		<0.25		
1,2,3-Trichloropropane	mg/kg	0.005	0.011		< 0.05		
1,2,4-Trimethylbenzene	mg/kg	52	170		0.52		
1,2,3-Trimethylbenzene	mg/kg				0.29		
1,3,5-Trimethylbenzene	mg/kg	21	70		0.18		
Vinyl chloride	mg/kg	0.079	0.75		< 0.05		
Xylenes, Total	mg/kg	270	420		0.17		
Semivolatile Organic Compounds	Units	Res. PRG	Ind. PRG				
Acenaphthene	mg/kg	3,700	29,000		<33 0		
Acenaphthylene	mg/kg	3,700*	29,000*		<33 0		
Anthracene	mg/kg	22,000	100,000		<33 0		
Benzidine	mg/kg	0.0021	0.0075		<330 J3		
Benzo (a) anthracene	mg/kg	0.62	2.1		<33 0		
Benzo (b) fluoranthene	mg/kg	0.62	2.1		<33 0		
Benzo (k) fluoranthene	mg/kg	6.2	21		<33 0		
Benzo (g,h,i) perylene	mg/kg	2,300*	29,000*		<33 0		
Benzo (a) pyrene	mg/kg	0.062	0.21		<33 0		
Bis (2-chlorethoxy) methane	mg/kg				<330 O		
Bis (2-chloroethyl) ether	mg/kg	0.21	0.55		<330 O		
Bis (2-chloroisopropyl) ether	mg/kg	2.9	7.4		<330 O		
4-Bromophenyl-phenylether	mg/kg				<330 O		
2-Chloronaphthalene	mg/kg				<33 0		
4-Chlorophenyl-phenylether	mg/kg				<330 O		
Chrysene	mg/kg	62	210		<33 0		
Dibenz (a,h) anthracene	mg/kg	0.062	0.21		<33 0		
3,3-Dichlorobenzidine	mg/kg	1.1	3.8		<330 O		
2,4-Dinitrotoluene	mg/kg	120	1,200		<330 0		
2,6-Dinitrotoluene	mg/kg	61	620		<330 0		
Fluoranthene	mg/kg	2,300	22,000		<33 0		
Fluorene	mg/kg	2,700	26,000		<33 0		
Hexachlorobenzene	mg/kg	0.3	1.1		<330 O		
Hexachloro-1,3-butadiene	mg/kg				<330 O		
Hexachlorocyclopentadiene	mg/kg				<330 O		
Hexachloroethane	mg/kg	35	120		<330 J4		
Indeno (1,2,3-cd) pyrene	mg/kg	0.62	2.1		<33 0		
Isophorone	mg/kg	510	1,800		<330 O		
Naphthalene	mg/kg	56	190		<33 0		
Nitrobenzene	mg/kg	20	100		<330 0		
n-Nitrosodimethylamine	mg/kg	0.0095	0.034		<330 0		
n-Nitrosodiphenylamine	mg/kg	99	350		<330 0		

		Lab	oratory ID	L481739-01	L481739-	02	L482531	1-01
			Field ID	Drum 1	East Shop S	ump	East Shop Sump	
	Sa	ample Colle	ction Date	9/30/2010	9/30/201	10	9/30/20	
n-Nitrosodi-n-propylamine	mg/kg	0.069	0.25		<330	0		
Phenanthrene	mg/kg	3,700*	29,000*		<33	0		
Benzylbutyl phthalate	mg/kg	12,000	100,000		<330	0		
Bis (2-ethylhexyl) phthalate	mg/kg	35	120		<330	0		
Di-n-butyl phthalate	mg/kg				<330	0		
Diethyl phthalate	mg/kg				<330	0		
Dimethyl phthalate	mg/kg	100,000	100,000		<330	0		
Di-n-octyl phthalate	mg/kg				<330	0		
Pyrene	mg/kg	2,300	29,000		<33	0		
1,2,4-Trichlorobenzene	mg/kg	650	3,000		<330	0		
4-Chloro-3-methylphenol	mg/kg				<330	0		
2-Chlorophenol	mg/kg				<330	J4,0		
2,4-Dichlorophenol	mg/kg	180	1,800		<330	0		
2,4-Dimethylphenol	mg/kg	1,200	12,000		<330	0		
4,6-Dinitro-2-methylphenol	mg/kg				<330	0		
2,4-Dinitrophenol	mg/kg	120	1,200		<330	0		
2-Nitrophenol	mg/kg				<330	0		
4-Nitrophenol	mg/kg				<330	0		
Pentachlorophenol	mg/kg				<330	0		
Phenol	mg/kg	37,000	100,000		<330	0		
2,4,6-Trichlorophenol	mg/kg	6.1	62		<330	0		

Checked by: MJC 11/5/2010

Notes: mg/l Milligrams per liter

mg/kg Milligrams per kilogram

Detected values are indicated in **bold**

--- Not analyzed, not established, or not available

PRG USEPA Region 9 2002 Preliminary Remediation Goal for Soil (Res. = residential, Ind. = industrial)

PRGs not established for these compounds, values shown are KY Action Levels in Form DEP 7097C (July 2010)
 Value above the Industrial PRG.

Value above the Residential PRG and below the Industrial PRG.

Laboratory Qualifiers:

- J (EPA) Estimated value below the lowest calibration point. Confidence correlates with concentration.
- O (ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate

analytical determination. The detection limit is elevated in order to reflect the necessary dilution.J3 The associated batch QC was outside the established quality control range for precision.

J4 The associated batch QC was outside the established quality control range for accuracy.

J6 The sample matrix interfered with the ability to make an accurate determination; spike value is low.

Table 5 Wastewater Analytical Results 500 East Main Street, Louisville, Kentucky MACTEC Project No. 6680-08-9635

[Lc	aboratory ID	L484588-01	L484588-02	L484588-03
			Field ID	BW Sump	Drum 2	Poly Tank
		Sample Col	lection Date	10/18/2010	10/18/2010	10/18/2010
Devenetors	Units	PRG	MCL			1
Parameters	S.U.	PRG	6.5-8.5**	10 T8	7.8 T8	7.7 T8
pH Cuenida				<0.005	<0.005	<0.005
Cyanide	mg/l	0.73	0.2			1
Oil and Grease	mg/l			1.2 J	<5.9	2.6 J
Metals	Units	PRG	MCL			
Cadmium	mg/l	0.018	0.005	<0.005	< 0.005	0.0024 J
Chromium	mg/l		0.1	0.099	0.036	0.093
Copper	mg/l	1.5	1.3*	0.054	< 0.02	0.060
Lead	mg/l		0.015*	0.065	0.027	0.23
Nickel	mg/l	0.73		0.18	< 0.02	0.25
Silver	mg/l	0.18	0.10**	< 0.01	<0.01	<0.01
Zinc	mg/l	11	5**	0.16	0.039	0.55
Volatile Organic Compounds	Units	PRG	MCL			
Acrolein	mg/l	0.000042		<0.05	<0.05	<0.05
Acrylonitrile	mg/l	0.000039		<0.01 J3	<0.01 J3	<0.01 J3
Benzene	mg/l	0.00034	0.005	<0.001	< 0.001	< 0.001
Bromodichloromethane	mg/l	0.00018	0.080	<0.001	< 0.001	< 0.001
Bromoform	mg/l	0.0085	0.080	<0.001	< 0.001	< 0.001
Bromomethane	mg/l	0.0087		<0.005	< 0.005	< 0.005
Carbon tetrachloride	mg/l	0.00017	0.005	< 0.001	< 0.001	< 0.001
Chlorobenzene	mg/l	0.11	0.1	< 0.001	< 0.001	< 0.001
Chlorodibromomethane	mg/l	0.00013	0.080	<0.001	< 0.001	< 0.001
Chloroethane	mg/l	0.0046		<0.005	< 0.005	< 0.005
2-Chloroethyl vinyl ether	mg/l			<0.05	<0.05	< 0.05
Chloroform	mg/l	0.0062	0.080	<0.005	< 0.005	< 0.005
Chloromethane	mg/l	0.0015		<0.0025	<0.0025	< 0.0025
1,2-Dichlorobenzene	mg/l	0.37	0.6	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	mg/l	0.0055		< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	mg/l	0.0005	0.075	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane	mg/l	0.39		<0.005	< 0.005	< 0.005
1,1-Dichloroethane	mg/l	0.81		< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	mg/l	0.00012	0.005	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	mg/l	0.34		< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	mg/l	0.12	0.1	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	mg/l	0.00016	0.005	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	mg/l			< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	mg/l			< 0.001	< 0.001	< 0.001
Ethylbenzene	mg/l	0.0029	0.7	< 0.001	< 0.001	< 0.001
Methylene Chloride	mg/l	0.0043		<0.005	< 0.005	< 0.005
1,1,1,2-Tetrachloroethane	mg/l	0.00043		< 0.001	< 0.001	< 0.001
Tetrachloroethene	mg/l	0.00066	0.005	< 0.001	< 0.001	< 0.001
Toluene	mg/l	0.72	1	< 0.005	< 0.005	< 0.005
1,1,1-Trichloroethane	mg/l	3.2	0.2	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	mg/l	0.0002	0.005	<0.001	< 0.001	<0.001
Trichloroethene	mg/l	0.000028	0.005	< 0.001	0.0013	0.0068
Trichlorofluoromethane	mg/l	1.3		<0.005	< 0.005	< 0.005
Vinyl chloride	mg/l	0.00002	0.002	<0.001	< 0.001	<0.001

Table 5 Wastewater Analytical Results 500 East Main Street, Louisville, Kentucky MACTEC Project No. 6680-08-9635

		La	boratory ID	L484588-01	L484588-02	L484588-03
			Field ID	BW Sump	Drum 2	Poly Tank
		Sample Coll	ection Date	10/18/2010	10/18/2010	10/18/2010
		•			• • •	• • •
Semivolatile Organic Compounds	Units	PRG	MCL			
Acenaphthene	mg/l	0.37	0.0002	< 0.001	< 0.001	<0.004 0
Acenaphthylene	mg/l	0.365***		<0.001	< 0.001	<0.004 0
Anthracene	mg/l	1.8	0.0002	<0.001	< 0.001	<0.004 O
Benzidine	mg/l	0.000000029		< 0.01	< 0.01	<0.04 O
Benzo (a) anthracene	mg/l	0.000092	0.0002	<0.001	< 0.001	<0.004 O
Benzo (b) fluoranthene	mg/l	0.000092	0.0002	<0.001	< 0.001	<0.004 O
Benzo (k) fluoranthene	mg/l	0.00092	0.0002	<0.001	< 0.001	<0.004 O
Benzo (g,h,i) perylene	mg/l	0.182***		<0.001	< 0.001	<0.004 O
Benzo (a) pyrene	mg/l	0.0000092	0.0002	< 0.001	< 0.001	<0.004 O
Bis (2-chlorethoxy) methane	mg/l			< 0.01	< 0.01	<0.04 0
Bis (2-chloroethyl) ether	mg/l	0.0000098		< 0.01	< 0.01	<0.04 0
Bis (2-chloroisopropyl) ether	mg/l	0.00027		< 0.01	<0.01	<0.04 0
4-Bromophenyl-phenylether	mg/l			<0.01	<0.01	<0.04 0
2-Chloronaphthalene	mg/l			<0.001	<0.001	<0.004 0
4-Chlorophenyl-phenylether	mg/l			<0.01	<0.001	<0.004 0
Chrysene	mg/l	0.0092	0.0002	<0.01	<0.001	<0.004 0
Dibenz (a,h) anthracene		0.000092	0.0002	<0.001	<0.001	<0.004 0
3.3-Dichlorobenzidine	mg/l	0.000092	0.0002	<0.01	<0.001	<0.004 0
-,	mg/l					<0.04 0
2,4-Dinitrotoluene	mg/l	0.073		< 0.01	<0.01	
2,6-Dinitrotoluene	mg/l	0.036		< 0.01	<0.01	<0.04 0
1,2-Diphenylhydrazine	mg/l	0.000084		< 0.01	< 0.01	<0.04 0
Fluoranthene	mg/l	1.5	0.0002	< 0.001	< 0.001	<0.004 0
Fluorene	mg/l	0.24	0.0002	<0.001	< 0.001	<0.004 0
Hexachlorobenzene	mg/l	0.000042	0.001	<0.001	<0.001	<0.004 0
Hexachloro-1,3-butadiene	mg/l			<0.01	<0.01	<0.04 0
Hexachlorocyclopentadiene	mg/l	0.22	0.05	<0.01	<0.01	<0.04 O
Hexachloroethane	mg/l	0.0048		<0.01	<0.01	<0.04 O
Indeno (1,2,3-cd) pyrene	mg/l	0.000092	0.0002	<0.001	<0.001	<0.004 O
Isophorone	mg/l	0.071		<0.01	<0.01	<0.04 O
Naphthalene	mg/l	0.0062	0.0002	<0.001	<0.001	<0.004 O
Nitrobenzene	mg/l	0.0034		<0.01	<0.01	<0.04 0
n-Nitrosodimethylamine	mg/l	0.0000013		<0.01	<0.01	<0.04 O
n-Nitrosodiphenylamine	mg/l	0.014		<0.01	< 0.01	<0.04 O
n-Nitrosodi-n-propylamine	mg/l	0.0000096		<0.01	<0.01	<0.04 0
Phenanthrene	mg/l	0.365***		<0.001	<0.001	<0.004 O
Benzylbutyl phthalate	mg/l	7.3		<0.001	< 0.001	<0.004 O
Bis (2-ethylhexyl) phthalate	mg/l	0.0048		<0.001	<0.001	<0.004 O
Di-n-butyl phthalate	mg/l	3.6		<0.001	< 0.001	<0.004 O
Diethyl phthalate	mg/l	29		<0.001	< 0.001	<0.004 O
Dimethyl phthalate	mg/l	360		<0.001	< 0.001	<0.004 O
Di-n-octyl phthalate	mg/l	1.5		<0.001	< 0.001	<0.004 O
Pyrene	mg/l	0.18	0.0002	<0.001	< 0.001	<0.004 O
1,2,4-Trichlorobenzene	mg/l	0.19	0.07	<0.01	< 0.01	<0.04 O
4-Chloro-3-methylphenol	mg/l			<0.01	< 0.01	<0.04 O
2-Chlorophenol	mg/l	0.03		< 0.01	< 0.01	<0.04 O
2,4-Dichlorophenol	mg/l	0.11		< 0.01	< 0.01	<0.04 0
2,4-Dimethylphenol	mg/l	0.73		< 0.01	< 0.01	<0.04 0
4,6-Dinitro-2-methylphenol	mg/l			< 0.01	< 0.01	<0.04 0
2,4-Dinitrophenol	mg/l	0.073		<0.01	<0.01	<0.04 0
2-Nitrophenol	mg/l			<0.01	<0.01	<0.04 0
4-Nitrophenol	mg/l			<0.01	<0.01	<0.04 0
Pentachlorophenol	mg/l	0.00056	0.001	<0.01	<0.01	<0.04 0
Phenol	mg/l	22		<0.01	<0.01	<0.04 0
2,4,6-Trichlorophenol		0.0036		<0.01	<0.01	<0.04 0
z,4,0-muniorophenoi	mg/l	0.0030		<u>\0.01</u>	<0.01	<0.04 U

Table 5 Wastewater Analytical Results 500 East Main Street, Louisville, Kentucky MACTEC Project No. 6680-08-9635

Laboratory ID	L484588-01	L484588-02	L484588-03	
Field ID	BW Sump	Drum 2	Poly Tank	
Sample Collection Date	10/18/2010	10/18/2010	10/18/2010	

Pesticides/PCBs	Units	PRG	MCL					
Aldrin	mg/l	0.000004		< 0.00005	< 0.00005		< 0.00005	
Alpha BHC	mg/l			< 0.00005	< 0.00005		< 0.00005	
Beta BHC	mg/l			< 0.00005	< 0.00005		< 0.00005	
Delta BHC	mg/l			< 0.00005	< 0.00005		< 0.00005	
Gamma BHC	mg/l			< 0.00005	< 0.00005		< 0.00005	
Chlordane	mg/l	0.00019	0.002	< 0.0005	< 0.0005		< 0.0005	
4,4-DDD	mg/l	0.00028		< 0.00005	< 0.00005		< 0.00005	
4,4-DDE	mg/l	0.0002		< 0.00005	< 0.00005		< 0.00005	
4,4-DDT	mg/l	0.0002		< 0.00005	< 0.00005		< 0.00005	
Dieldrin	mg/l	0.0000042		< 0.00005	<0.00005		< 0.00005	
Endosulfan I	mg/l	0.22		< 0.00005	< 0.00005		< 0.00005	
Endosulfan II	mg/l			< 0.00005	< 0.00005		< 0.00005	
Endosulfan sulfate	mg/l			< 0.00005	< 0.00005		< 0.00005	
Endrin	mg/l	0.011	0.002	< 0.00005	< 0.00005		< 0.00005	
Endrin adelhyde	mg/l			< 0.00005	< 0.00005		< 0.00005	
Endrin ketone	mg/l			< 0.00005	< 0.00005		< 0.00005	
Heptachlor	mg/l	0.000015	0.0004	< 0.00005	<0.00005		< 0.00005	
Heptachlor epoxide	mg/l	0.0000074	0.0002	< 0.00005	< 0.00005		< 0.00005	
Hexachlorobenzene	mg/l	0.000042	0.001	< 0.00005	< 0.00005		< 0.00005	
Methoxychlor	mg/l	0.18	0.04	< 0.00005	<0.00005		< 0.00005	
Toxaphene	mg/l	0.000061	0.003	< 0.0005	< 0.0005		< 0.0005	
PCB 1016	mg/l	0.00096	0.0005	<0.005 0	< 0.005	0	< 0.005	0
PCB 1221	mg/l	0.000034	0.0005	<0.005 0	< 0.005	0	< 0.005	0
PCB 1232	mg/l	0.000034	0.0005	<0.005 0	< 0.005	0	< 0.005	0
PCB 1242	mg/l	0.000034	0.0005	<0.005 0	< 0.005	0	< 0.005	0
PCB 1248	mg/l	0.000034	0.0005	<0.005 0	< 0.005	0	< 0.005	0
PCB 1254	mg/l	0.000034	0.0005	<0.005 0	< 0.005	0	< 0.005	0
PCB 1260	mg/l	0.000034	0.0005	<0.005 0	< 0.005	0	< 0.005	0
					Prepare	ed by:	TSK 11/04/2	010

Checked by: MJC 11/05/2010

Notes:

mg/I Milligrams per liter

--- Not analyzed, not established, or not available

Detected values are indicated in **bold**

PRG USEPA Region 9 2002 Preliminary Remediation Goal for tap water

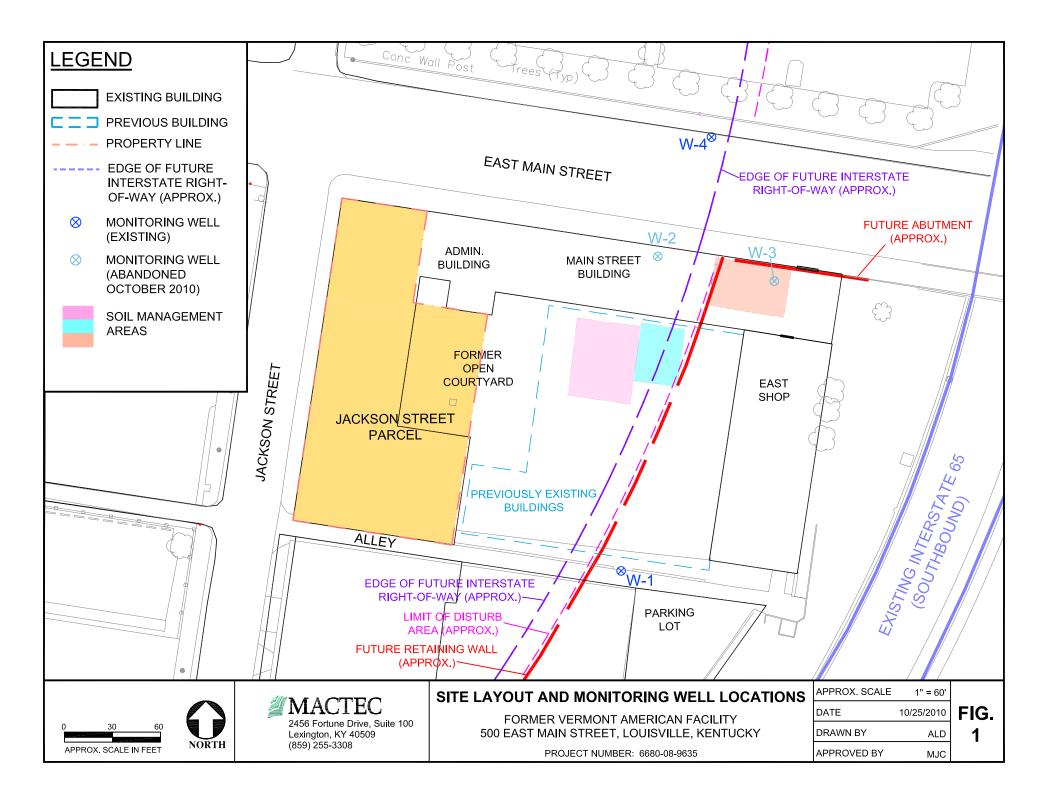
MCL USEPA Maximum Contaminant Level, or Action Level, for drinking water

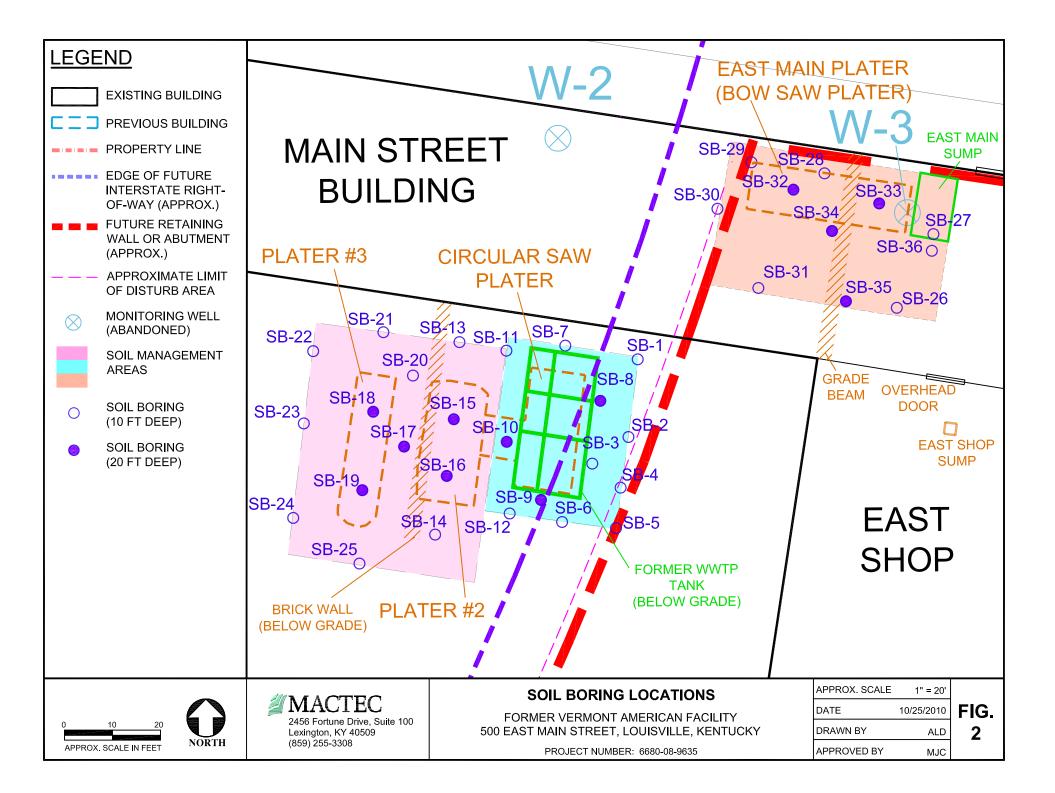
- * Treatment technique value
- ** National Secondary Drinking Water Standard
- *** PRGs not established for these compounds, values shown are KY Action Levels in Form DEP 7097C (July 2010) Value above the USEPA MCL.
 - Value above the USEPA Region 9 tap water PRG and below USEPA MCL.

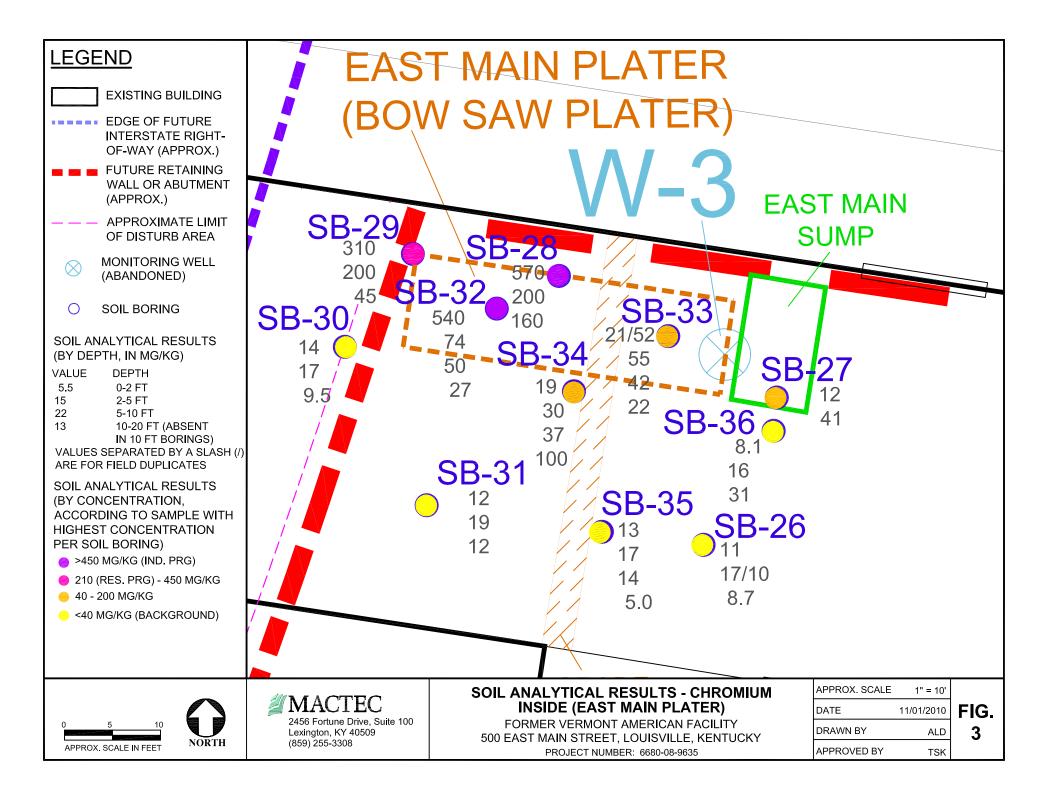
Laboratory Qualifiers:

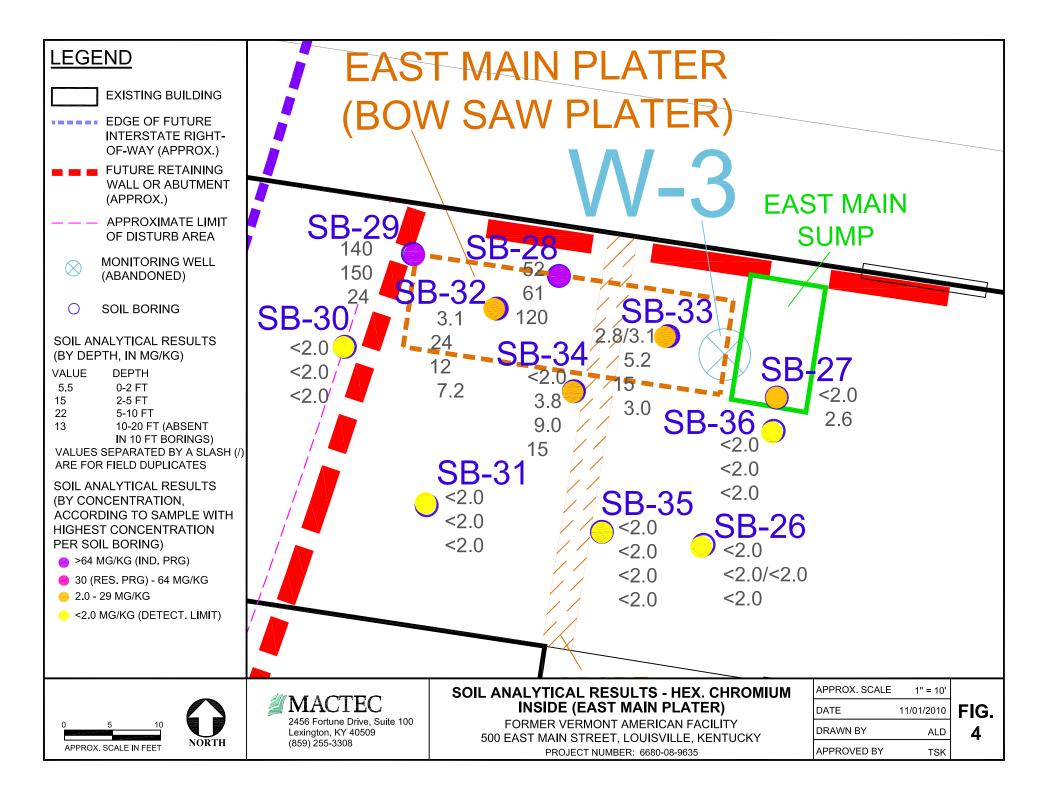
- T8 (ESC) Additional method/sample information: Sample(s) received past/too close to holding time expiration.
- J (EPA) Estimated value below the lowest calibration point. Confidence correlates with concentration.
- O (ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
- J3 The associated batch QC was outside the established quality control range for precision.

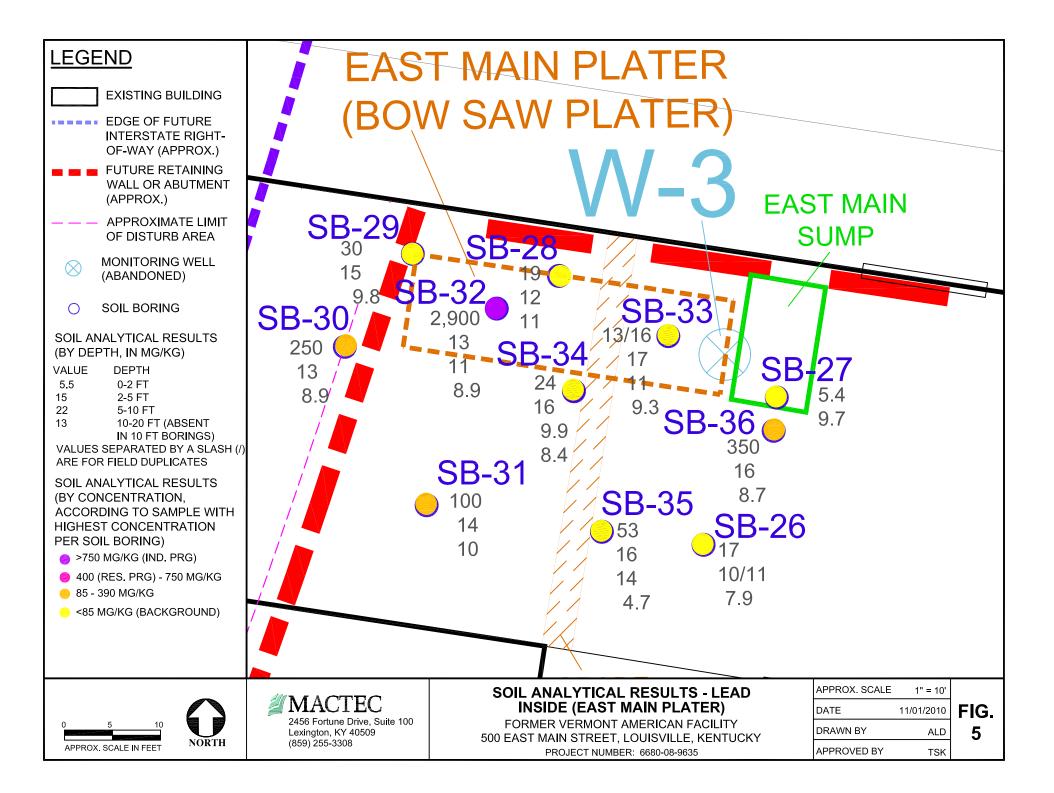
FIGURES

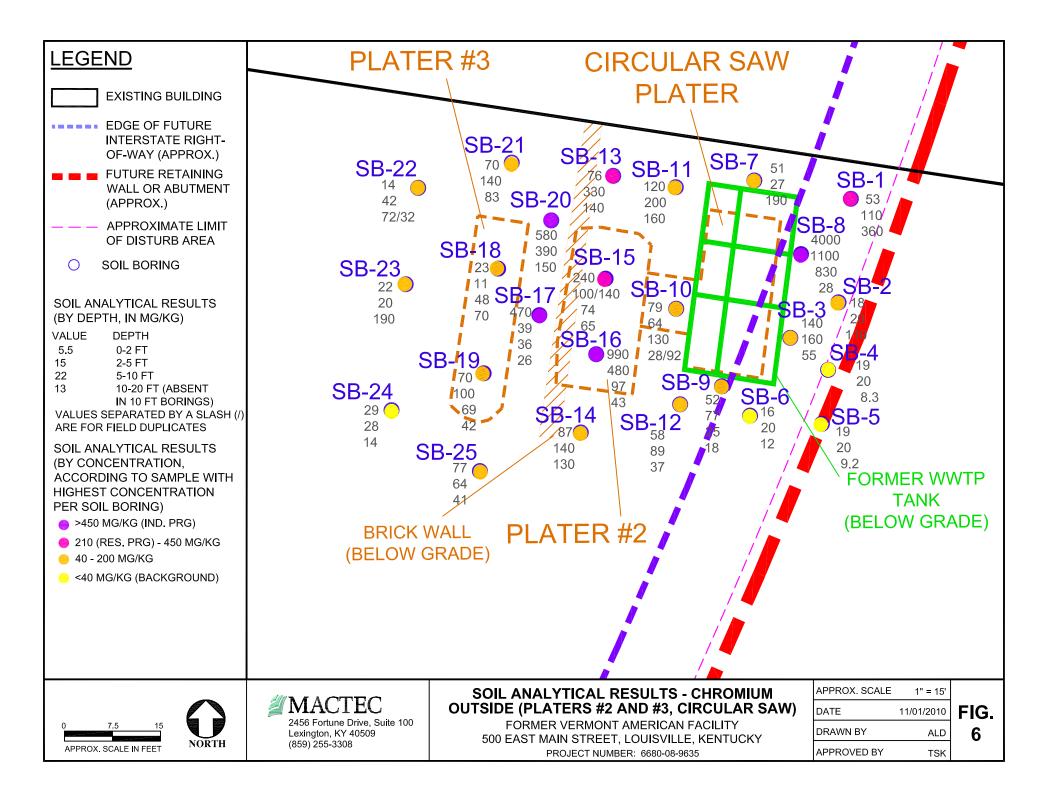


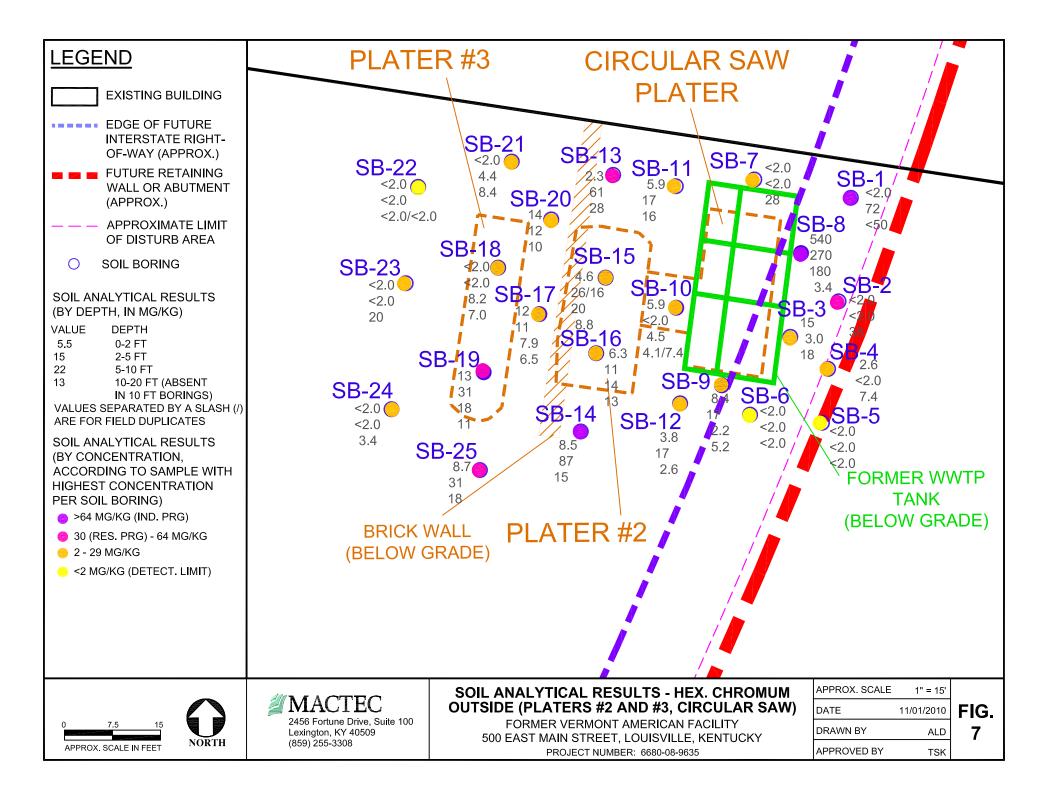


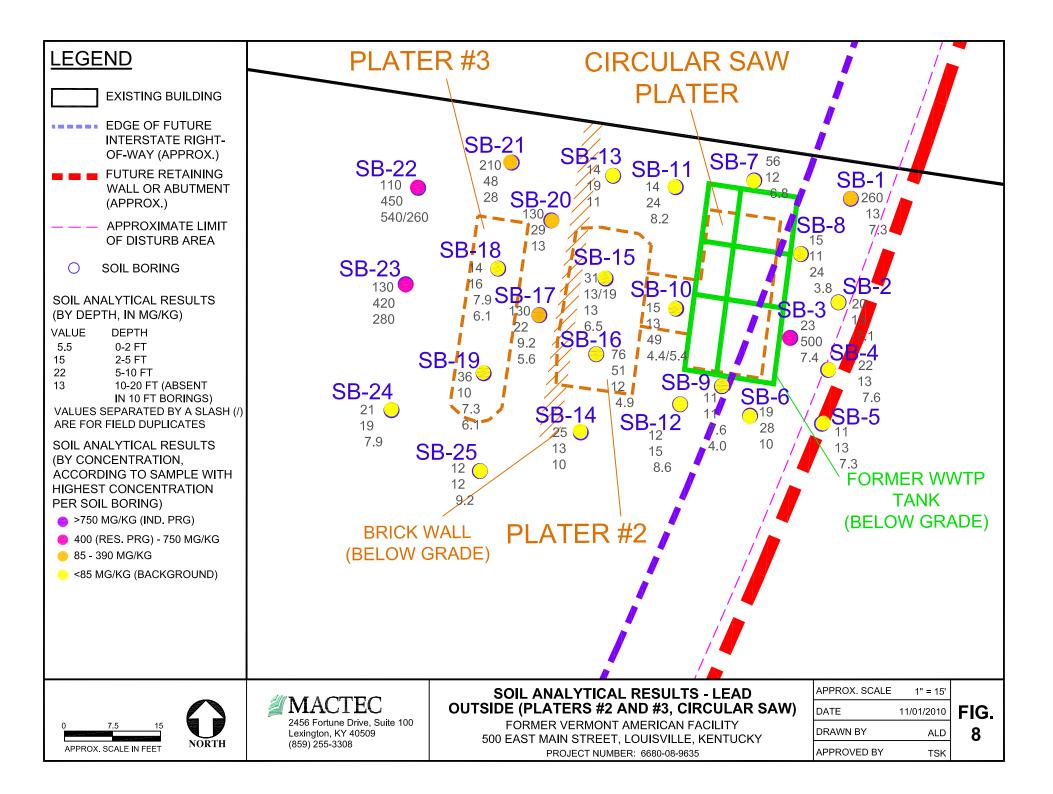


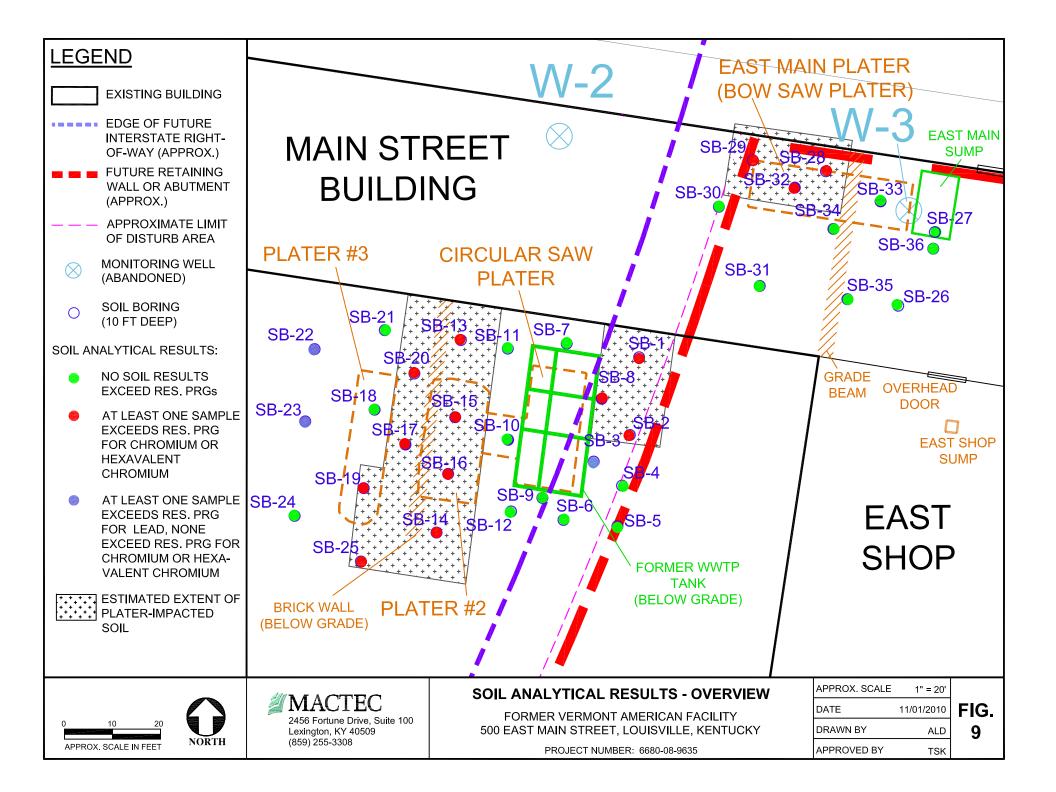












APPENDIX A

PHOTOGRAPHS



РНОТО 1:

View across courtyard toward northeast corner, showing extent of over-growth in courtyard prior to clearing.



РНОТО 2:

View from the courtyard of the south wall of the East Main Building, showing ivy growth, broken windows, falling vent pipes. Brick facing in many areas was found to be deteriorated, and was sloughing off the walls in some areas.



РНОТО 3:

Pre-existing drums, apparently containing investigation derived waste generated in previous investigations, were left undisturbed.



РНОТО 4:

View looking east southeast across the courtyard after initial clearing, west wall of East Shop in background. The existing metal door (shown hanging to the right of the opening) could not be salvaged, and a new plywood door was built for security. This opening was used as the main access point to the East Shop and the Main Street building in subsequent cleaning and removal activities.



РНОТО 5:

View of the southeast corner of the East Shop prior to cleaning the floor trenches.



PHOTO 6:

Cleaning of the floor trenches inside the East Shop. Scrapers were used to break up the accumulated debris and rust, and a shop vac was used to remove the material from the trenches. The debris was containerized in 55-gallon drums, labeled, and staged onsite for disposal.



РНОТО 7:

View of the center floor trench at the south wall of the East Shop after cleaning. All of the floor trenches inside the East Shop appear to drain to this point. The discharge pipe from this area to outside the south wall is filled with concrete.



PHOTO 8:

View inside the sump at the north end of the East Shop (labeled East Shop Sump on the drawings). The sump had standing water prior to cleaning, with black sludge below the water. A shop vac was used to remove loose debris from the sump. A plywood bottom is visible at the bottom of the sump. Two pipes enter the bottom of the sumps from the north and south. The northern pipe has a plug in it.



РНОТО 9:

After the plywood bottom was removed from the sump at the north end of the East Shop, additional sludge and debris was removed using a shop vac. Additional pipes can be seen entering the sump at higher levels in the sidewalls.



РНОТО 10:

A post-hole digger and a shovel were used to remove the heavier sludge and debris material from the sump at the north end of the East Shop. The material was containerized in 55gallon drums.



PHOTO 11:

View of the sump at the north end of the East Shop after cleaning. The sump bottom is rough but has no remaining loose material. A sample was subsequently collected for analysis using a steel rod to break up the bottom material and a posthole digger to retrieve the broken debris.



РНОТО 12:

View of the large sump in the center of the East Shop after standing water and debris was removed. Former VAC, 500 East Main Street, Louisville, Kentucky MACTEC Project No.6680-08-9635

Photographs Taken September-October 2010 Report of Initial Removal Activities and Soil Sampling



РНОТО 13:

View looking south of the floor trench running north-south in the center of the East Shop after cleaning.



РНОТО 14:

Concrete debris visible at the surface in the outdoor courtyard soil management areas.



РНОТО 15:

Large concrete debris at the surface and in the shallow subsurface was removed from the soil management areas outside, using a miniexcavator, so that soil borings could be advanced in these areas.



PHOTO 16:

Uncovering the brick wall (located along the west edge of Plater 2) that was depicted in photos from the 1997 KDWM site investigation activities. The top of the brick wall was approximately 6 to 8 inches below grade, and the bottom of the wall was about 18 inches below grade. View looking north at the south wall of the Main Street Building.





РНОТО 17:

A former wastewater treatment tank (concrete, multichambered) was partially uncovered during removal of near-surface concrete debris. The tank was found to be backfilled with demo debris (brick and concrete of varying sizes, and some metal pieces). The debris was placed back in the tank, and soil borings were performed around the outside of the tank.

PHOTO 18:

View looking south across the courtyard, fence along southern boundary of courtyard is visible, building in background is on other side of alley. Concrete debris removed from the outside soil management areas was stockpiled as shown on the south side of the courtyard.

Photographs Taken September-October 2010 Report of Initial Removal Activities and Soil Sampling



РНОТО 19:

View looking northnortheast across the courtyard toward south wall of Main Street Building. Orange stakes placed by surveyors mark west edge of the future interstate right-of-way (ROW, based on the most recent drawing provided by the KYTC). Disturbed soil area to the right of truck is the former wastewater tank after backfilling.



PHOTO 20:

View looking northwest across the courtyard soil management areas after debris removal and survey, and before soil borings were advanced. Pink flags represent the outlines of the former platers, green flags represent individual soil boring locations, and orange stakes represent the edge of the Interstate ROW.

(Photo taken 10/4/2010)

Photographs Taken September-October 2010 Report of Initial Removal Activities and Soil Sampling



PHOTO 21:

View looking north at the outline of the former Circular Saw Plater and surrounding soil boring locations. South wall of Main Street building in background.

(Photo taken 10/4/2010)



РНОТО 22:

View looking north at the outlines of former Platers #2 (bordered to the west by the buried brick wall) and #3 (outlined with pink flagging on the far left), and surrounding soil boring locations.

(photo taken 10/4/2010)



РНОТО 23:

Track-mounted Geoprobe 7720DT rig used to advance soil borings for sample collection using directpush technology (DPT).

(photo taken 10/4/2010)



РНОТО 24:

Soil sample collected by DPT in acetate sleeve. The soil sample collected across a two-foot interval has had aliquots removed and composited for analysis by mixing in a clean stainless steel bowl.

(Photo taken 10/5/2010)



РНОТО 25:

Collection of composited soil samples into 9-ounce jars for submittal to the analytical laboratory.

(Photo taken 10/5/2010)



РНОТО 26:

Coring was performed through the concrete floor in the Main Street Building in preparation for advancing soil borings in the area of the former East Main Plater.

(Photo taken 10/6/2010)



РНОТО 27:

In most locations, the concrete floor in the Main Street Building was found to be 10 inches thick.

(Photo taken 10/6/2010)



PHOTO 28:

View looking north across the floor of the East Main Plater area in the area of the grade beam. After the beam was encountered in two coreholes, the locations for soil borings SB-28, 34 and 35 had to be offset.

(Photo taken 10/6/2010)



РНОТО 29:

The corehole for soil boring SB-27 encountered saturated pea gravel immediately beneath the concrete. Note the steel I-beam in cross section in the core-hole sidewall.

(Photo taken 10/6/2010)



PHOTO 30:

Saturated pea gravel from SB-27.

Photo taken 10/6/2010)

Photographs Taken September-October 2010 Report of Initial Removal Activities and Soil Sampling





РНОТО 31:

Post-hole diggers were used to collect samples from the 0.8-2.0 foot interval (first soil interval encountered beneath the concrete floor) in each boring inside the Main Street Building.

This was done in preparation for installation of a 4 inch PVC casing to prevent cross contamination of deeper soils during drilling.

(Photo taken 10/6/2010)

РНОТО 32:

This photo illustrates the 4 inch PVC casing installed in a hand-dug soil boring prior to advancing the DPT rod and sampler.

(Photo taken 10/6/2010)



РНОТО 33:

Saw-cutting the floor in the Main Street Building, prior to concrete removal.

(Photo taken 10/11/2010)



РНОТО 34:

After saw-cutting, the floor in the East Main Plater area was broken up using a mini excavator equipped with a hydraulic jackhammer. Much of the floor was found to have at least two layers of concrete. In some areas, staining was observed following the interface between two layers (yellow staining in this photo).



РНОТО 35:

Purple staining in concrete debris from beneath the East Main Plater.

All visibly stained concrete was transferred into roll-off boxes staged in the courtyard.



PHOTO 36:

A pipe, apparently part of former process piping under the concrete floor in the area of the East Main Plater, west of the grade beam, was found to contain bright purple liquid waste.



РНОТО 37:

The free liquid from the pipe was drained into a 5-gallon bucket.



PHOTO 38:

The free liquid was solidified in the bucket with absorbent pellets, and the bucket was disposed with stained concrete debris in a roll-off box.



РНОТО 39:

Contents of bucket after solidification.



РНОТО 40:

Bright yellow and green staining was observed on the bottom side of the concrete along the north wall of the Main Street Building. This concrete could not be removed due to proximity to the north wall.

The woven geotextile fabric in the foreground was used to line the area of floor removal prior to placement of backfill.



РНОТО 41:

One of the 20-yard roll-off boxes provided by Heritage for transport of material impacted with plating waste. Concrete debris along with limited quantities of piping and soil were placed in these roll-offs for transport to the disposal facility.



РНОТО 42:

Interior of the roll-off box, lined with plastic sheeting.



РНОТО 43:

Concrete debris generated from floor removal that was not stained was staged outside in the courtyard (pile on the right), next to the concrete debris removed from the outdoor soil management areas prior to soil sampling (pile on the left).



РНОТО 44:

The stockpiled concrete was sampled by using a hammer drill to advance holes into selected slabs of concrete. The pulverized concrete from multiple holes was composited into two samples for laboratory extraction and analysis of TCLP metals.

Photographs Taken September-October 2010 Report of Initial Removal Activities and Soil Sampling



РНОТО 45:

View looking northwest across the floor removal are in area of the East Main Plater, showing the grade beam separating the two sections of removed concrete. Both sections were lined with woven geotextile fabric prior to backfilling.

(Photo taken 10/15/2010)

PHOTO 46:

Two loads of dense grade aggregate (DGA) after delivery in the courtyard, and before being used to backfill the floor removal in the East Main Plater.

(Photo taken 10/15/2010)



Photographs Taken September-October 2010 Report of Initial Removal Activities and Soil Sampling



РНОТО 47:

This photo depicts placement of the DGA into the removal area.

(photo taken 10/15/2010)

PHOTO 48:

Inside the East Main Building, looking west across the floor removal area after placement of the DGA backfill.



APPENDIX B

HISTORIC BUILDING PLAN

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EAST SHOP

1.30%

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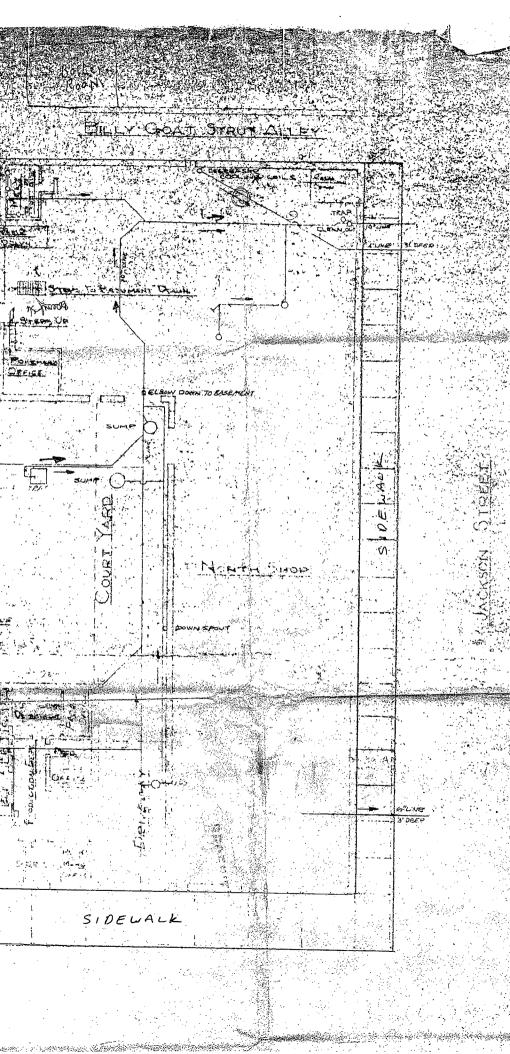
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* All plater Ffillent piped To Indeo Heavy Me als Removal process



APPENDIX C

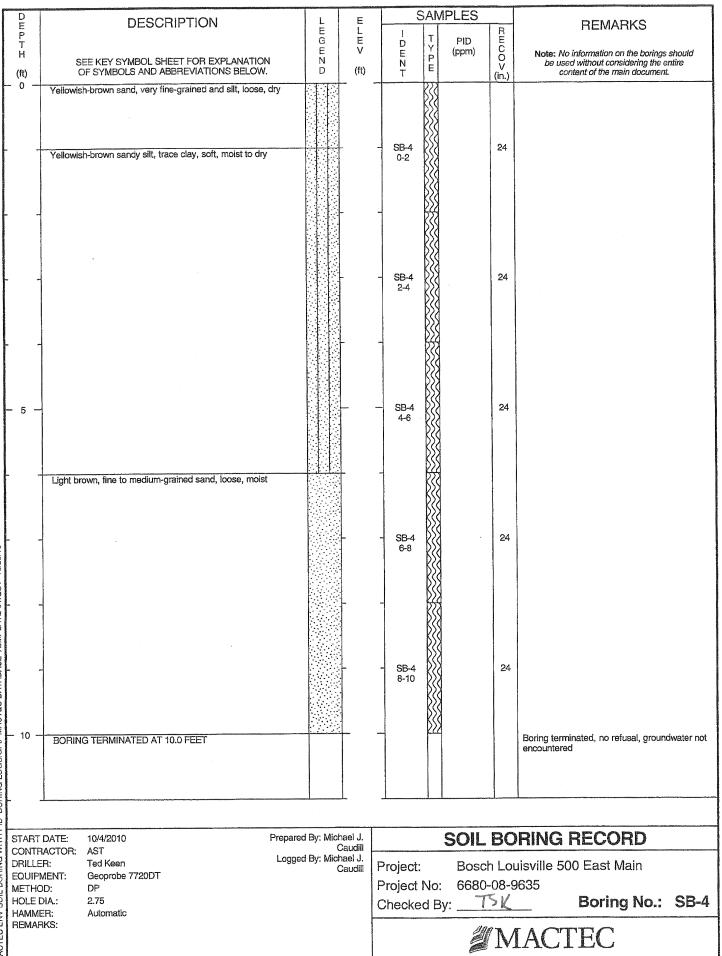
SOIL BORING LOGS

D	DESCRIPTION		E	S	AN	IPLES		
		E G	L E V	I D	T Y P	PID	RECOV	REMARKS
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	N	(ft)	E N T	PE	(ppm)	0 V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
0 - ``	Light brown sand, very fine-grained with silt, brick and concrete fragments, loose, dry		·	- SB-1 0-2			24	
	Yellowish-brown silty clay with fine to medium-grained sa medium stiff, moist	nd,		- SB-1 2-4			24	
- 5				SB-1 4-6			24	
01.GDT 10/29/10	Light brown fine to medium-grained sand, loose, moist			- SB-1 6-8			24	
SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.GDT OF ME DI 20 25 DI 10 11 20 24 DI 10 20 24 DI 20 24	BORING TERMINATED AT 10.0 FEET			- SB-1 8-10			24	Boring terminated, no refusal, groundwater not encountered
I PID BORING LOGS.								
	FRACTOR: AST	repared By: Michael Cauc Logged By: Michael	- lik					RING RECORD
DRILL EQUII METHOLS HAMM	PMENT: Geoprobe 7720DT IOD: DP 2 DIA.: 2.75	Cauc	Ilit	Project: Project I Checke	No: d B	6680	-08-9	uisville 500 East Main 9635 Boring No.: SB-1
	REMARKS:					Ä	″M	IACTEC

D E P	DESCRIPTION	L E	E L E		AMF	PLES	R	REMARKS
Р Т Н		G E	Ē	E	T Y P	PID (ppm)	RECO>	Note: No information on the borings should
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	N D	(ft)	KI 1	E		V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0	Light brown sand, very fine-grained with silt, brick and concrete fragments, loose, dry			- SB-2 0-2			24	
	Yellowish-brown sandy clay, moist to very moist, becoming sandier with depth			- SB-2			24	
	· •			2-4				
- 5 -				- SB-2 4-6			24	
	Yellowish-brown fine to medium-grained sand, loose, moist			- SB-2 6-8			24	
- 10 —	BORING TERMINATED AT 10.0 FEET			- SB-2 8-10			24	Boring terminated, no refusal, groundwater r
DRILLEI EQUIPM METHO HOLE D	ACTOR: AST Logge R: Ted Keen Logge IENT: Geoprobe 7720DT D: DP IIA.: 2.75	ed By: Micha Ca ed By: Micha Ca	udill el J. udill	Project: Project N Checked	10:	Boscl 6680-	- Lou -08-9	
Hamme Remar					- , .			LACTEC

	D	DESCRIPTION			S	AM	IPLES		REMARKS
Share and the second	D E P T	DESCHIPTION	E I G I	:		т	PID	RECO	REMARKS
	H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E N D (1			Y P E	(ppm)	C O V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
		Yellowish-brown sand, very fine-grained with silt, brick and concrete fragments, loose, dry		- SB 0-	-3 2			. 24	
verses destructions and a supervision at a second or the second second second second second second second second	-			- SB 2-				24	
a series and the second series of the second sec	· 5 –	Yellowish-brown sandy clay, soft, moist to dry		SE 4-	-3 6			24	
TE 01.GDT 10/29/10 1		Light brown fine to medium-grained sand, loose, moist		- SE 6	-3 8			24	
MACTEC ENV SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE OF	- 10 -	BORING TERMINATED AT 10.0 FEET		- SF 8- 	-3 10			24	Boring terminated, no refusal, groundwater not encountered
BORING LOGS.									
TH PID	START	DATE: 10/4/2010 Prepared	d By: Michael J				SUI	RA	RING RECORD
LIM DN		ACTOR: AST	Caudi d By: Michael J	۰ ا					an a
/ SOIL BORIN	EQUIPMENT: Geoprobe 7720DT Cat METHOD: DP HOLE DIA: 2.75 HAMMER: Automatic		Caudi	Proje	ct N	No: d By		08-9	uisville 500 East Main 1635 Boring No.: SB-3
MACTEC ENV	REMA		Beldelung Byg de yn ewnogen wurdt ar					and the state of the	IACTEC

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MACTEC ENV SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.GDT 10/29/10

Γ	D	DESCRIPTION	L	E	S	AM	PLES		DEMADKO	
	D E P T		E G	L E	I D	т	PID	RECO	REMARKS	
	H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E N	⊽ (ft)	D E N T	Y P E	(ppm)	C O V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.	
	0	Yellowish-brown sandy silt, trace clay, medium stiff, moist to dry			- SB-5 0-2 - SB-5 2-4			24		
	5 —				- SB-5 4-6			24		
FEMPLATE 01.GDT 10/29/10	-	Light brown, fine to medium-grained sand, loose, moist			- SB-5 6-8			24		
MACTEC ENV SOIL BORING WITH PID BORING LOGS GPJ MACTEC DATABASE TEMPLATE 01	- 10	BORING TERMINATED AT 10.0 FEET			- SB-5 8-10			24	Boring terminated, no refusal, groundwater not encountered	
PID BO										
HTIWE		ACTOR: AST	d By: Michael Cau d By: Michael	dill	an an Charles In Strategy and a strategy of the state	1			RING RECORD	
SOIL BORING	DRILLE Equipn Metho Hole D	MENT: Geoprobe 7720DT DD: DP DIA.: 2.75	d By: Michael Cau	dill	Project: Project N Checked	√o: i Β∖	6680-	08-9		
MACTEC EN	HAMME REMAR		annan poiseach a suid-ann agus				Contraction of the local data and		IACTEC	

EC ENV SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE

D	DECODIDEION		ε	S	AM	PLES		
DEPT	DESCRIPTION		L E V	l D	T Y	PID	R E	REMARKS
T H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	N	V (ft)	E N T	Y P E	(ppm)	RECOV (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0 -	Yellowish- brown sandy silt with concrete and brick fragments dry, loose	•			335			
L a	Yellowish-brown sandy silt, trace clay, soft, dry, very moist at feet bgs	5	-	SB-6 0-2			24	
			-					
			-	SB-6 2-4			24	
			-	-				
- 5 -	Yellowish-brown sandy clay, soft, very moist, rooted			SB-6 4-6			24	•
	-		-	-				
9/10	Light brown fine to medium-grained sand, loose, moist		-	SB-6 6-8			24	
DT 10/29/10					<u> </u>			
1TE 01.G	-		-					:
TEMPL/								
TABASE	-			- SB-6 8-10			24	
CTEC DA					555			
- 10 -	BORING TERMINATED AT 10.0 FEET		_		222			Boring terminated, no refusal, groundwater not encountered
a LOGS.				1				
BORIN			-	<u> </u>		çalı		
		ared By: Michael J Caudi	J.			SOIL	BO	RING RECORD
S CONTR DRILLE EQUIP	MENT: Geoprobe 7720DT	ged By: Michael J Caudi	J. IIII P	Project:		Bosch	n Lou	uisville 500 East Main
METHO S HOLE	DIA.: 2.75			Project I Checked	чо: d By	-6680 		
WACTEC ENV SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.G BATABASE TEMPLATE 01.G MATHEN AND AND AND AND AND AND AND AND AND AN				2004-000-000-000-000-000-000-000-000-000	20000201380000	Ű	M	IACTEC

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D	DESCRIPTION		E	S	AMF	PLES		
D E P T	DESCRIMINON	E G	L E V	I D	т	PID	R E	REMARKS
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E N	V (ft)	E N T	Y P E	(ppm)	R E C O ∨ (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0 -	Yellowish-brown sand and silt, with concrete and brick fragments, dry, loose		-		<u>}</u> }			
					\$ <u>}</u> }			
				- SB-7	833		24	
				- SB-7 0-2				
	Yellowish-brown sandy silt, trace clay, soft, dry							
				-	<u> </u>			
					888			
					888			
ļ				- SB-7	658		24	
				2-4	833			
					BSB			
Ļ .	-			-				
					838			
					888			
- 5 -	•	-		- SB-7 4-6	KS8		24	
				4-0	KS8			
					KXX -			
ļ	-			-	<u>}</u>			
				-	833			
					BSS			
	Light brown, fine to medium-grained sand, loose, moist			- SB-7 6-8	888		24	
0/29/1					888			
1 T					KSS -			
E 01.G				-	KA -			
PLATI					ß			
TEM					833			
ABASI	-			- SB-7 8-10	R		24	
DAT					₿\$§			
ACTEC					888			
W - 10 -	BORING TERMINATED AT 10.0 FEET			-	K44			Boring terminated, no refusal, groundwater not encountered
JGS.G								
NG LC								
BORI	1			<u> </u>		an a		J
Soll BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.GDT 10/29/10 - 01	DATE: 10/4/2010 Prepare	d By: Michae	IJ.		<	SOII	RN	RING RECORD
DRILLE	RACTOR: AST	Cau d By: Michae	udill si J.	D	¥			****
	MENT: Geoprobe 7720DT	Cau	llibu	Project: Project l	No:	Bosci 6680-		uisville 500 East Main
	DIA.: 2.75			Checke	d Bv			
			ŀ			y y na had baan lei y ny yn yn yn annan ar		₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩
HAMM REMAI							M	IACTEC

D	DESCRIPTION	L	E	S	SAN	IPLES	200-Factoria Costanda	
E P T	DESCHIERON	EG	L E	I D	TY	PID	R E	REMARKS
Ĥ	SEE KEY SYMBOL SHEET FOR EXPLANATION	EN	v	EN	P	(ppm)	RECOV	Note: No information on the borings should be used without considering the entire
(ft) - 0	OF SYMBOLS AND ABBREVIATIONS BELOW.	D	(ft)	Ť	E		v (in.)	content of the main document.
	Yellowish-brown slity sand, with concrete and brick fragments, loose, dry				58			
				- SB-8	833		24	
				0-2	888			
-	Yellowish-brown sandy clay, soft, moist, becoming sandier with	11/1		1	K			
	depth, moist to very-moist at 7 feet bgs			- SB-8	K K K K K K K K K K K K K K K K K K K		24	
				2-4	ß			
				-	} }			
					883			
- 5 -				- SB-8 4-6	888		24	
					ß.			
					655			
	Light brown sand, fine to medium-grained, loose, moist			- SB-8	833		24	
				6-8	888			
				1	ŔŔ			
				- SB-8	888		24	
				8-10	KS8			
- 10 -	Light brown sand, fine to medium-grained, interbedded with			-	222			
	thin sitty clay lenses, loose, moist to very moist, wet at 18 feet bgs			0.00	833		01	
				- SB-8 10-12	83		24	
		-		-	<u>}</u>			
					88			
		-		- SB-8 12-14	888		24	
5				_				
5					558			
- 15 -		-		SB-8	833		24	
				14-16	$\langle \rangle \rangle$			
:								
				- SB-8	888		24	
				16-18	Į\$\$			
				-	<u>}</u>			
				000	555		24	
				- SB-8 18-20	333		64	
20 -	BORING TERMINATED AT 20.0 FEET		-	_	255			Boring terminated, no refusal, groundwater not
								encountered
START	DATE: 10/4/2010 Prepared	d By: Michae	el J.			SUII	RO	RING RECORD
CONTR	ACTOD AST	Cai	udill L		of Province			
EQUIP	VIENT: Geoprope //2001	d By: Michae Car	§					
METHC			Project No: 6680-08-9635 Checked By: <u>TSK</u> Boring No.: SB-8					
HAMME REMAR	ER: Automatic							
	MACTEC							

DE	DESCRIPTION	LE	S	AN	NPLES		REMARKS			
P T		E L G E E V	l D E	ΤΥΡ	PID (ppm)	RECO				
H (ft) 0	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	D (ft)	N T	PE	(ppm)	0 V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.			
	Yellowish-brown silty clay with sand, soft, dry near surface, moisture increasing to very moist at 7 feet bgs		- SB-9 0-2	855 855		24				
			-	\$}} \$}}						
·			- SB-9 2-4			24				
			- SB-9			24				
			- 4-6							
	Light brown sand, fine to medium-grained, loose, moist to very moist, wet at 14 feet bgs		- SB-9 6-8			24				
			- - SB-9			24				
- 10 -			8-10							
an ann an Anna			- SB-9 10-12			24				
-			- - SB-9			24				
10/29/10	Yellowish-brown silty clay, wet		12-14							
105.10 - 15 -						24				
SE TEMPLA	Yellowish-brown sand, fine to medium-grained, moist		- SB-9			24				
EC DATABA	-		16-18							
GPJ MACTI	-		- SB-9 18-20			24				
	BORING TERMINATED AT 20.0 FEET						boring terminated, no refusal, groundwater not encountered			
E STARI		d By: Michael J.			SOIL	BO	RING RECORD			
		Caudill d By: Michael J. Caudill	Project:				uisville 500 East Main			
HOLE	HOLE DIA.: 2.75				Project No: 6680-08-9635 Checked By: <u>75K</u> Boring No.: SB-9					
MACTEC ENV REMA			MACTEC							

D	DECODIDITION	LE		SAN	IPLES				
EPT	DESCRIPTION	E L G E	I D	Т	PID	R	REMARKS		
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E V N D (ft)	E	Y P E	(ppm)	₽шСО> (in.)	Note: No information on the borings should be used without considering the entire content of the main document.		
- 0 -	Yellowish-brown silty sand to sandy silt with concrete and brick fragments, dry								
			- SB-10 0-2			24			
	Yellowish-brown sandy silt, with clay, soft, dry to moist, very		-						
	moist 5 to 7 feet bgs		- SB-10			24			
			2-4	ß					
- 5 -			SB-10 4-6			24			
			-						
	Yellowish-brown sand, fine to medium-grained, loose, moist		- SB-10			24			
			6-8						
			- SB-10 8-10			24			
- 10 -			-						
F .			- SB-10 10-12			24			
	-	-	- 10-12						
			0.000.400	855					
0			- SB-10 12-14			24			
DT 10/29/10	Yellowish-brown silty clay, with fine to medium-grained sand, soft, very moist to wet								
LGD'- 15 -			- SB-10 14-16			24			
PLATE	-		-						
SE TEM			- SB-10			24			
ATABA			16-18						
CTEC D			-	XXX					
PJ MA	-		- SB-10 18-20	₿\$\$		24			
9:50 - 20 -	BORING TERMINATED AT 20.0 FEET		_	555			Boring terminated, no refusal, groundwater not		
DHING							encountered		
I D B(A				
E START	BACTOR: AST	d By: Michael J. Caudill d By: Michael J.	Project:		Control of		RING RECORD		
	Cau EQUIPMENT: Geoprobe 7720DT METHOD: DP			No:			uisville 500 East Main 9635		
BHOLEI	HOLE DIA.: 2.75 HAMMER: Automatic			Checked By: TSK Boring No.: SB-10					
					Ű	M	IACTEC		
MAC						ل ⊽ ـهـ			

D E P	DESCRIPTION	L	E L	T	AN	IPLES		REMARKS
Р Т Н		E G E	E V	I D E	T Y	PID (ppm)	RECOV	
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	N D	(ft)	1 1 1	PE	1.1.11	0 V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
0	Yellowish-brown silty clay, with fine-grained sand, soft, dry, stiff and moist at 5 feet bgs						(111)	
 				- SB-11 0-2			24	
				- SB-11			24	
				2-4			24	•
5	Yellowish-brown silty clay, with fine-grained sand, soft, very			- SB-11			24	
	moist			- 4-6				
	Yellowish-brown sand, fine to medium-grained, loose, moist			- SB-11 6-8			24	
				-				
				- SB-11 8-10			24	
- 10 -	BORING TERMINATED AT 10.0 FEET			-				Boring terminated, no refusal, groundwater n encountered
START	DATE: 10/4/2010 Prepared	By: Michae				0011		
	ACTOR: AST	By: Michae By: Michae Cau			·			RING RECORD
EQUIPN METHC HOLE D	ALLER: Teo Reen 200 2UIPMENT: Geoprobe 7720DT ETHOD: DP DLE DIA.: 2.75 AMMER: Automatic			Project: Project N Checked	lo: B	6680-	08-9	uisville 500 East Main 635 Boring No.: SB-1
REMAP			MACTEC					

D	DESCRIPTION	LE	S	SAM	PLES				
DEPT	DESCHILLION	L E E L G E V	I	Т	PID	RE	REMARKS		
T H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E V N D (ft)	D E N T	Y P E	(ppm)	КШСО≻ (ir.)	Note: No information on the borings should be used without considering the entire content of the main document.		
- 0 -	Yellowish-brown silty clay, with fine-grained sand, soft, dry to moist, very moist at 8 feet bgs			ßß					
				833					
			- SB-12	ß		24			
			0-2	BX3					
			-						
			- SB-12 2-4			24			
				ß					
				<u>}</u>					
- 5 -			- SB-12			24			
			4-6	K K					
			200	X					
	•			K8					
				K					
			- SB-12 6-8	XXX		24			
GDT 10/29/10				K					
	Nell with turning and fine to mailing available large maint		-						
LATE	Yellowish-brown sand, fine to medium-grained, loose, moist								
TEMP									
ABASE 1	-		- SB-12 8-10	S SS		24			
TINIT OF									
IACIE				838					
≥ - 10 - ſd9	BORING TERMINATED AT 10.0 FEET						Boring terminated, no refusal, groundwater not encountered		
LOGS									
PID BOHING LOGS.GPJ MACTEC DATABASE TEMPLATE OF 0 01							· · ·		
		* ***	T	1.70%00-2	~~··				
ers 1	ACTOR: AST	d By: Michael J. Caudill d By: Michael J.					RING RECORD		
	MENT: Geoprobe 7720DT	Caudill	Project:				uisville 500 East Main		
BHOLEI	DIA.: 2.75		Project No: 6680-08-9635 Checked By: <u>TSK</u> Boring No.: S						
HAMM REMAR				-					
MACTE			MACTEC						

D				AM	PLES				
DEP	DESCRIPTION	L E E L G E	1		PID	R F	REMARKS		
T H	SEE KEY SYMBOL SHEET FOR EXPLANATION	G E E V N	D E N	T Y P E	(ppm)	R E C O V	Note: No information on the borings should be used without considering the entire		
(ft) - 0 -	OF SYMBOLS AND ABBREVIATIONS BELOW.	D (ft)		E		V (in.)	content of the main document.		
	Yellowisn-brown silty clay, with fine to medium-grained sand, soft, dry, moist at 7.5 feet bgs		- SB-13 0-2			24			
			- SB-13 2-4			24			
- 5 ·			- SB-13 4-6			24			
01.GDT 10/29/10	Light yellowish-brown sand, fine to medium-grained, loose, moist		- SB-13 6-8			24			
MACTEC ENV SOIL BORING WITH PID BORING LOGS GPJ MACTEC DATABASE TEMPLATE 01.G PUB PID PID PID PID BORING LOGS GPJ MACTEC DATABASE TEMPLATE 01.G PID PID PID PID PID PID PID PID PID PID	BORING TERMINATED AT 10.0 FEET		- SB-13 8-10			24	Boring terminated, no refusal, groundwater not encountered		
AG WITH PID BOHING LOGS.G.	RACTOR: AST	By: Michael J. Caudill By: Michael J.					RING RECORD		
	EQUIPMENT: Geoprobe 7720DT Caud METHOD: DP HOLE DIA.: 2.75 HAMMER: Automatic			AdditionProject:Bosch Louisville 500 East MainProject No:6680-08-9635Checked By: TSK Boring No.:SB-13					
AMAR AND A MACTEO EN			MACTEC						

D E P	DESCRIPTION	LE	S	SAMI	PLES		REMARKS			
P T H		E L G E E V	l D E	T Y	PID (ppm)	RECOV				
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	D (ft)	N T	P E		0 V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.			
- 0	Yellowish-brown silty clay, with fine-grained sand, soft, dry , stiff 4 to 5 feet bgs, soft, very moist 5 to 7 feet bgs		- SB-14 0-2			24				
			- SB-14 2-4			24				
- 5 -			SB-14 4-6			24				
	Yellowish-brown sand, fine to medium-grained, loose, moist		- SB-14 6-8			24				
	BORING TERMINATED AT 10.0 FEET		- SB-14 8-10			24	Boring terminated, no refusal, groundwater not			
							encountered			
H START	START DATE: 10/4/2010 Prepared By: Michael J. CONTRACTOR: AST Caudil			SOIL BORING RECORD						
	DRILLER: Ted Keen Logged By: Michae EQUIPMENT: Geoprobe 7720DT Car METHOD: DP HOLE DIA.: 2.75			No:	Bosc 6680	h Loι -08-9	usville 500 East Main			
REMAF			MACTEC							

D LL D	DESCRIPTION	L E E L		SAN	IPLES		REMARKS				
P T H		G E V	L D E	T Y	PID (ppm)	RECOV	Note: No information on the borings should				
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	D (ft)	N	PE	(111-17)	0 V (in.)	be used without considering the entire content of the main document.				
- 0 -	Yellowish-brown sandy clay, with silt, concrete and brick fragments, soft, dry			33							
-	•		- SB-15 0-2			24					
-	Yellowish-brown silty clay with fine-grained sand, soft, moist,		_	KA KA							
	very moist at 7 feet bgs		- SB-15			24					
			2-4			24					
-			-								
- 5 -			- SB-15 4-6			24					
_			4.0								
				K S							
-	Light yellowish-brown sand, fine to medium-grained, loose, moist, trace clay 18 to 18.25 feet bgs		- SB-15 6-8			24					
1			-								
-			- SB-15	K		24					
10			8-10	855							
- 10 —											
-			- SB-15 10-12	K S		24					
-			_								
_			- SB-15			24					
			12-14	K							
-			1								
- 15 —			- SB-15 14-16			24					
			-								
			00.45	833		01					
-			- SB-15 16-18	<u>}</u> }		24					
-			-								
-			- SB-15 18-20	833		24					
- 20											
	BORING TERMINATED AT 20.0 FEET						Boring terminated, no refusal, groundwater not encountered				
			1								
CONTR	START DATE: 10/5/2010 Prepared By: Michael J. CONTRACTOR: AST Caudill			SOIL BORING RECORD							
drillei Equipn Metho		ed By: Michael J. Caudill	Project:Bosch Louisville 500 East MainProject No:6680-08-9635								
	DLE DIA.: 2.75			Checked By: <u>T5K</u> Boring No.: SB-15							
REMAR				-	and the competence and a down		IACTEC				

D E P	DESCRIPTION	L	E L	S	AŅ	IPLES		REMARKS			
P T H		E G E	L E V		Y	PID (ppm)	RECOV	Note: No information on the horings should			
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	N	(ft)	E N T	PE	U- F-1-9	0 V (in.)	be used without considering the entire content of the main document.			
- 0 -	Light brown sandy silt, with concrete and brick fragments, loose, dry				<u>}</u>						
	Light yellowish-brown sandy clay, medium stiff, moist, light gray mottles and very moist 5 to 8 feet bgs		-	SB-16 0-2			24				
	gray moties and very motion to the root age		4		<u>}</u>						
			~	SB-16	$\langle \rangle \rangle$		24				
ANTI DI GIUNINA				2-4							
			-								
- 5 -			-	SB-16 4-6	$\langle \langle \rangle$		24				
			4								
				SB-16	<u>}}</u>		24				
				6-8	~~						
-	Light yellowish-brown to brown sand, fine to medium-grained, loose, moist		-		ŚŚŚ						
		-	-	SB-16 8-10			24				
- 10 -			_								
			_	SB-16			24				
				10-12							
			~		ŚŚŚ						
			-	SB-16 12-14			24				
10/29/10	-		-		Š\$\$						
5			_	SB-16	<u>}</u> }}		24				
9.1- 15 - 15 -				SB-16 14-16	888						
. TLA			-		K\$\$						
BASE 1	-		-	SB-16 16-18	<u>}</u> }		24				
, DATA			-								
AACTEC				QB 16			24				
GPJ A				SB-16 18-20			24				
BORING LOGS.GPJ. MACTEC DATABASE TEMPLATE 01.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BORING TERMINATED AT 20.0 FEET				222			Boring terminated, no refusal, groundwater not encountered.			
NILL .			_				<u> </u>				
	DATE: 10/5/2010 Prepare	d By: Michael	J.	and a second		SOII	RO	RING RECORD			
	RACTOR: AST Logge	Cauc d By: Michael Cauc	dill	Project: Bosch Louisville 500 East Main							
	EQUIPMENT: Geoprobe 7720D I METHOD: DP			Project No: 6680-08-9635							
	OLE DIA.: 2.75 AMMER: Automatic			Checked By: <u>T^SK</u> Boring No.: SB-16							
MACTEC MACTEC							M	IACTEC			
Ψ		geographic and the second s			status (Status			9 2014 9 401 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1			

D	DESCRIPTION	LE	SAMPLES					
DEP	DESCRIPTION	L E E L G E V	1		PID	RE	REMARKS	
T H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E V N D (ft)	D E N T	Y P E	(ppm)	R ⊟ C O > (in.)	Note: No information on the borings should be used without considering the entire content of the main document.	
- 0 -	Light brown silty sand, with concrete and brick fragments, loose, dry			839				
ŀ	Yellowish-brown silty clay, with fine sand, soft, dry, becoming		- SB-17	833		24		
	moist with depth, very moist and soft at 7 feet bgs		0-2	888				
F	-		-	KXI -				
_			- SB-17	KSI -		24		
			2-4	558				
F	-		-					
			- SB-17	633		24		
- 5 -			4-6			24		
L	-		-					
				833				
-	Light brown sand, fine to medium-grained, loose, moist		- SB-17 6-8			24		
			4					
				888				
-			- SB-17 8-10	88		24		
- 10 -	_	_	_					
				88				
-	-		- SB-17 10-12	KS.		24		
Γ	-			ß				
-	-	-	- SB-17 12-14			24		
3/10			12-14	ß			- -	
GDT 10/29/10	-			ß				
109 - 15 ·	-	-	- SB-17			24		
ATE 0			14-16					
MPL			1					
L E T	-	-	- SB-17 16-18	833		24		
ATAB/			16-18	[\$\$				
	-		-	X				
MACT	-		- SB-17	888		24		
.GPJ			- SB-17 18-20	[[]				
0 0 1 20	BORING TERMINATED AT 20.0 FEET		-	222			Boring terminated, no refusal, groundwater not encountered	
RING								
0 0								
		d By: Michael J. Caudill		1	SOIL	BO	RING RECORD	
		d By: Michael J. Caudill	Project:		Bosch	n Lou	uisville 500 East Main	
	EQUIPMENT: Geoprobe 7720DT METHOD: DP		Project I	No:	6680-	08-9	9635	
S HOLE ≥ HAMM	DIA.: 2.75		Checke	d By	/: <u> </u>	SK	Boring No.: SB-17	
					211	N N		
MACT		MACTEC						

DE	DESCRIPTION	L	E	S	AN	IPLES			
E P T	DESCRIPTION	EG	L E	I D	TY	PID	REC	REMARKS	
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E N D	V (ft)		PE	(ppm)	R E C V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.	
<u>⊢ 0 −</u>	Light brown sandy silt, with brick fragments, loose, dry			- SB-18	\$ <u>\$</u>		24		
	Yellowish-brown sandy clay, brittle, dry, becoming medium stiff and moist with depth, light gray mottles from 5-7 feet bgs, very moist at 7 feet bgs			-			24		
				- SB-18 2-4			24		
- 5 -				- SB-18 4-6			24		
	Light yellowish-brown sand, medium-grained, coarsening with depth, loose, moist, trace clay 19.5 to 19.7			- SB-18 6-8			24		
				- SB-18 8-10			24		
				- SB-18 10-12 -			24		
DT 10/29/10				- SB-18 12-14 -			24		
- 15 -	-			SB-18 14-16			24		
BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.G DITILAD 2 - 02 - 02 - 02 - 02 - 02 - 02 - 02 -				- SB-18 16-18			24		
DGS.GPJ MACTE	BORING TERMINATED AT 20.0 FEET			- SB-18 18-20			24	Boring terminated, no refusal, groundwater not	
IORING L(encountered	
	DATE: 10/5/2010 Prepare	d By: Michael	IJ.			SOII	BO	RING RECORD	
	RACTOR: AST ER: Ted Keen Logge	Cau d By: Michael Cau	IJ.	Project:				uisville 500 East Main	
B HOLE	HOLE DIA.: 2.75			Project N Checked	No: d B	: 6680 sy: <u>1</u>			
	HAMMER: Automatic REMARKS:				MACTEC				

DWP	DESCRIPTION	L E	E		AN	IPLES	Б	REMARKS
Р Т Н		G E	L E V		T Y	PID (ppm)	RECO	Note: No information on the borings should
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	N	(ft)	D E N T	P E	("	0 V (in.)	be used without considering the entire content of the main document.
- 0	Yellowish-brown silty clay, with fine-grained sand, soft, moist, becoming medium stiff with depth, light gray mottles from 5-7 feet bgs, soft, very moist at 7 feet bgs		-	- SB-19 0-2			24	
-				- SB-19 2-4			24	• •
5 —			-	- SB-19 4-6			24	
-	Light brown sand, fine to coarse-grained, loose, moist, trace fine gravel from 12 to 16 feet bgs, silt seam 19 to 19.25 feet bgs, moist			- SB-19 6-8			24	
- 10 —				- SB-19 8-10			24	
-				- SB-19 10-12			24	
· -				- SB-19 12-14			24	
- 15 -	-			- SB-19 14-16 -			24	
				- SB-19 16-18			24	
	BORING TERMINATED AT 20.0 FEET			- SB-19 18-20			24	Boring terminated, no refusal, groundwater n
~ .								encountered
START		d By: Michael	J.	ayaagaayaa ah da Bir		SOIL	BO	RING RECORD
CONTE DRILLE EQUIPI METHO HOLE I	RACTOR: AST Logged ER: Ted Keen Logged MENT: Geoprobe 7720DT DD: DP DIA.: 2.75	Cau d By: Michael Cau	J. J	Project: Project I Checke	No: d B	Bosch	n Lou -08-9	uisville 500 East Main
REMAR			-					IACTEC

DEP	DESCRIPTION	L	E L	S	AŅ	IPLES		REMARKS
T		E G	L E V	I D	T	PID	RECO	
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E N D	(ft)	D E N T	PE	(ppm)	O V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0	Light brown silty sand, with concrete and brick fragments, loose, dry		_ ·	- SB-20			24	
	Light yellowish-brown silty clay, soft, brittle, dry, becoming medium stiff and sandy with depth, moist 2 to 8 feet bgs			0-2				
				- SB-20 2-4			24	
- 5 -			-	- SB-20 4-6			24	
EMPLATE 01.GDT 10/29/10	Light yellowish-brown sand, fine to medium-grained, loose, moist		-	- SB-20 6-8			24	
BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 0 - 01 - 01 - 01 - 01 - 01 - 01 - 01 - 01	BORING TERMINATED AT 10.0 FEET		-	- SB-20 8-10			24	Boring terminated, no refusal, groundwater not encountered
ID BOH			_	1	ا ا		<u> </u>	J
	ACTOD: ACT	d By: Micha Ca	audill			SOIL	BO	RING RECORD
B HOLE	ER: Ted Keen Logge MENT: Geoprobe 7720DT DD: DP DIA.: 2.75	d By: Micha Ca	ael J. audill	Project: Project N Checkeo	Vo:	6680-	08-9	uisville 500 East Main 9635 Boring No.: SB-20
MACTEC ENV REMAI	RKS:	2012221-01201-020-020-020-020-020-020-02				Ű	M	IACTEC

P	DESCRIPTION	LE	5	AMPLES	5	
D E P T	DESCRIPTION	E L G E	1	T PID		REMARKS
(ft) - 0	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E V N D (ft)	D E N T	P (ppm)	R E C O ∨ (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
	Light brown silty sand, with concrete, brick and slag fragments, dry		CE 01		24	
	Yellowish-brown sandy silt, with clay, brittle, dry		- SB-21 0-2		24	
	Yellowish-brown sandy clay, with fine to medium-grained sand, soft, dry, brick fragments 4 to 5 feet bgs, moist, becoming sandier with depth 5 to 8 feet bgs		- SB-21 2-4		24	
			-			
- 5 -			- SB-21 4-6		24	
			-			
			- SB-21 6-8		24	
Abase remirlate	Yellowish-brown sand, fine to medium-grained, loose, moist		- SB-21 8-10		24	
	BORING TERMINATED AT 10.0 FEET		_			Boring terminated, no refusal, groundwater not encountered
		By: Michael J.		SOII	_ BO	RING RECORD
		Caudill I By: Michael J. Caudill	Project:	Bos	ch Lou	isville 500 East Main
	IA.: 2.75		Project N Checkec		0-08-9 13K	
REMAR					/ M	ACTEC

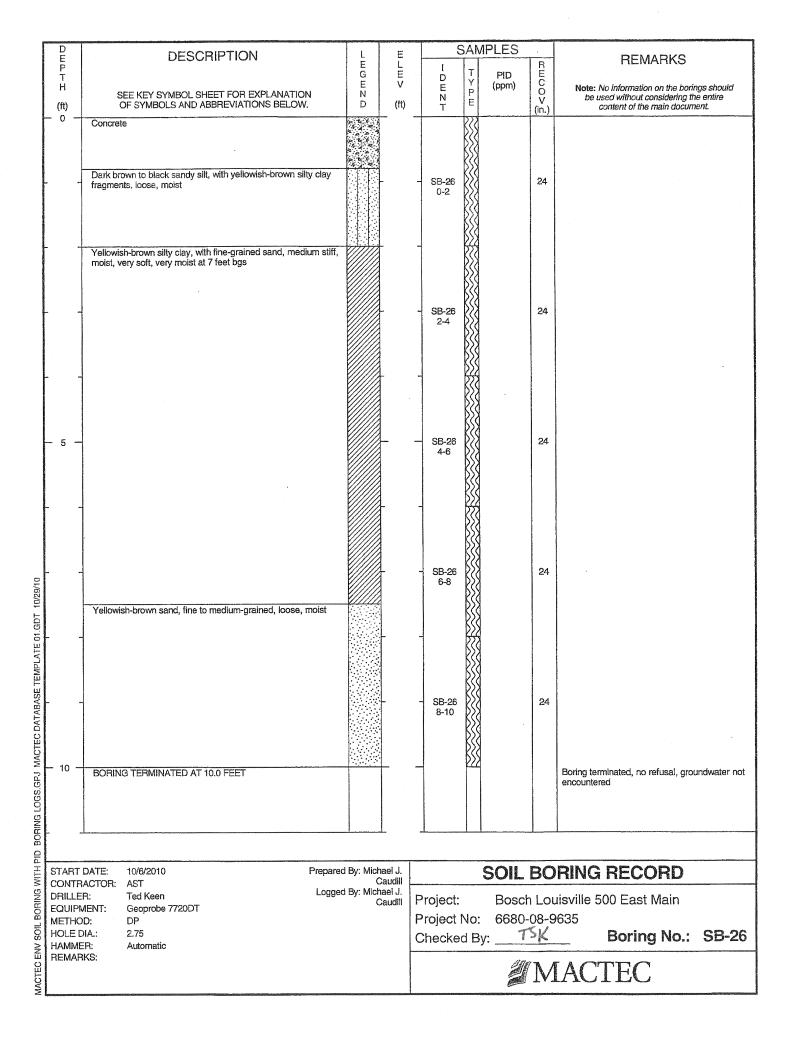
MACTEC ENV SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.GDT 10/29/10

D E P	DESCRIPTION	L E E L		SAN	IPLES	Тъ	REMARKS
P T H		G E V	D E	T Y P	PiD (ppm)	RECO	
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	D (ft)	I N	Ē		V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0	Dark brown sand and silt, with brick, concrete and slag debris, loose, dry		- SB-22 0-2			24	
			- SB-22 2-4			24	
- 5			- SB-22 4-6			24	
			- SB-22 6-8			24	
- 10 -	BORING TERMINATED AT 10.0 FEET		- SB-22 8-10			24	Boring terminated, no refusal, groundwater not
			 				encountered
START I	ACTOR AST	d By: Michael J. Caudill d By: Michael J.			and a state of the		RING RECORD
START I CONTR/ DRILLEI EQUIPM METHOI HOLE D HAMME REMAR	D: DP IIA.: 2.75	d By: Michael J. Caudill	Project: Project I Checkee	No: d By	6680-	08-9	isville 500 East Main 635 Boring No.: SB-22
REMAR						M	ACTEC

ſ	D E		DESCRIPTION	National Room and an Activity and a solution of the second second second second second second second second sec	L E E L	5	SAN	IPLES		REMARKS
Berland Anton Book Volutio	Р Т Н				G E V	l D E	T Y	PID (ppm)	RECON	
	(ft)		SEE KEY SYMBOL SHEET FOR EX OF SYMBOLS AND ABBREVIATION	NS BELOW.	D (ft)	I N	P E	166.03	0 V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
	- 0	Dark br loose, c	rown silty sand, with brick, concrete a dry	and slag fragments,						
						- SB-23 0-2			24	
and a second second			•							
	. <u>.</u>					-				
						- SB-23			24	
						2-4				
-						-				
	- 5					- SB-23 4-6			24	
						-				
dension and the state										
construction du						- SB-23	ß		24	
DT 10/29/10						6-8				
GDT 1										
LATE 01	•					-				
TEMP										
TABASE		-				- SB-23 8-10			24	
TEC DA										
J MAC	- 10	BORIN	G TERMINATED AT 10.0 FEET			_	855			Boring terminated, no refusal, groundwater not
OGS.GI										encountered
DRING L										
H PID B(Γ				
411W DV	START CONTR DRILLE	ACTOR:	10/5/2010 AST Ted Keen		By: Michael J. Caudill By: Michael J.		(
L BORIN	EQUIPA	AENT:	Geoprobe 7720DT DP		Caudill	Project: Project N	No:	6680-	08-9	iisville 500 East Main 635
ENV SOI	HOLE D	ER:	2.75 Automatic			Checked	d By	:	SK	Boring No.: SB-23
MACTEC ENV SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.G	REMAR	KS:							M	ACTEC
≱.										

D E	DECODIDITION		1 5	SAN	IPLES			
E P T	DESCRIPTION	E L G E	I D	Т	PID	RE	REMARKS	
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E V N D (ft)	E N T	Y P E	(ppm)	ВшСО О∨ (in.)	Note: No information on the borings should be used without considering the entire content of the main document.	
- o -	Yellowish-brown silty clay, with fine-grained sand, brittle, dry, becoming medium stiff and moist with depth, very moist at 7 feet bgs			K K				
			- SB-24 0-2			24		
			-	KXX				
				888				
			- SB-24 2-4			24		
			-					
				ß				
- 5 -			SB-24			24		
			4-6					
				<u>}</u>				
9/10			- SB-24 6-8			24		
GDT 10/29/10	Light yellowish-brown sand, fine to medium-grained, loose, moist							
	i i i i i i i i		-					
MPLAT								
ASETE			- SB-24			24		
DATAB			8-10	<u>}</u>				
ACTEC								
W - 10 -	BORING TERMINATED AT 10.0 FEET			KCC			Boring terminated, no refusal, groundwater not encountered	
g LOGS								
BORIN	· ·							
H START		d By: Michael J.			SOIL	BO	RING RECORD	
	in. Fearteen	Caudill d By: Michael J. Caudill	Project:		Bosch	n Lou	uisville 500 East Main	
METHO	METHOD: DP HOLE DIA.: 2.75		Project No: 6680-08-9635 Checked By: TSK Boring No.: SB-24					
	HAMMER: Automatic REMARKS:			MACTEC				
MACTE					2	IVI	ACIEC	

D E P	DESCRIPTION	L	E	<u> </u>	AN	NPLES		REMARKS
P T H		E G E	L E V	L D E	T Y	PID (ppm)	RECO	
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	N D	(ft)	N T	P E		0 V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0	Yellowish-brown silty clay, with fine-grained sand, brittle, dry, becoming medium stiff and moist with depth, very moist and soft at 7 feet bgs	-		- SB-25 0-2			24	
				- SB-25 2-4			24	
- 5 -				- SB-25 4-6			24	
	Light yellowish-brown sand, fine to medium-grained, loose, moist			- SB-26 6-8			24	
	BORING TERMINATED AT 10.0 FEET			- SB-25 8-10			24	Boring terminated, no refusal, groundwater not
								encountered
START	DATE: 10/5/2010 Prepare ACTOR: AST	d By: Michae Cau		19939-04-04-44-44-46-44-46-46-46-46-46-46-46-46-46		SOIL	BO	RING RECORD
START CONTR DRILLE EQUIPN METHO HOLE D HAMME REMAR	R: Ted Keen Logge MENT: Geoprobe 7720DT DD: DP DIA.: 2.75	d By: Michae Cau	ıl J. Idill	Project: Project I Checkee	No: d B		08-9	
REMAR		මෝමාද්රාශයෙකු පුළු පුළු පුළු පුළු පුළු පුළු පුළු පු			ورون درورون	Ű	Μ	IACTEC



D	DESCRIPTION	L	E		SAN	IPLES		DEMARKO
E P T		E G	L E	l D E	TY	PID	R H C O	REMARKS
н (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E N D	(ft)	E N T	PE	(ppm)	0 V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0 -	Concrete and I-beam steel Pea-gravel, loose, saturated with water, no recovery in							
	sampler 2 to 4 feet bgs, refusal at 6 feet bgs			- SB-27 0-2			0	
				2-4				
- 5				- SB-27 4-6			16	Boring terminated, refusal at 6 feet bgs, perched water encountered immediately beneath concrete floor of Main Street Building
ATE 01.GDT 10/29/10				1				
BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE OF HAITODA TATINO 20 MATINO 2	BORING TERMINATED AT 10.0 FEET			-				
SORING LOGS.								
	DATE: 10/6/2010 Prepa	red By: Micl	haall		5+5003+510905	<u>enii</u>	DA	
	ACTOR: AST R: Ted Keen Log	(ged By: Micl	Caudill	Project:	data sourienten			JISVIILE 500 East Main
HOLE C	D: DP DIA.: 2.75	· · · · · ·		Project Checke	No: d B	6680-	08-9	9635
HAMME REMAR								IACTEC

Г	D	DESCRIPTION	L	E	S	SAN	IPLES		DEMARKO
	DEPT	DESCRIPTION	E G	L E V	I	TY	PID	RECO	REMARKS
	T H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E N D	√ (ft)	D E N T	Y P E	(ppm)	C O V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
-	0	Concrete							
กระเพราะไหลาย เหตุสามหารเราสามหารเหตุสามหารเหตุ เม		Dark brown to black silty sand, with brick fragments, loose, moist			- SB-6 0-2			24	
-		Yellowish-brown silty clay, medium stiff, moist, becoming sandy with depth			- SB-6			24	
A POLICY OF THE ATT A DESCRIPTION OF THE ATT A				-	-				
	5 —				SB-6 4-6			24	
10.GD1 10/29/10	-	Yellowish-brown siity sand, loose, moist Yellowish-brown sand, fine to medium-grained, loose, moist		-	- SB-6 6-8			24	
SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01 표준 패 더 이 에	- 10 —	BORING TERMINATED AT 10.0 FEET			- SB-6 8-10			24	Boringh terminated, no refusal, groundwater not encountered
ID BORI	_			L				L	1
HIM		ACTOR AST	d By: Mich C	audill			SOIL	BO	RING RECORD
T Z D D O	RILLE QUIPN ETHO OLE D	R: Ted Keen Logget MENT: Geoprobe 7720DT DD: DP DIA.: 2.75	d By: Mich	ael J. audill	Project: Project Checke			08-9	
≥ H	AMME EMAR								IACTEC

D	DESCRIPTION		E	S	AM	PLES		
DEPT	DESCHIFTION	L E G E	E L E V	I	т	PID	RECO	REMARKS
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E N D	√ (ft)	D E N T	T Y P E	(ppm)	C O V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0 .	Concrete		-		<u>}</u> }			
	Dark brown to black sandy silt, with yellowish-brown silty clay			- SB-29			24	
	fragments, trace gravel, loose, moist			0-2				
					KS8			
Γ	Yellowish-brown silty clay with fine-grained sand, medium stiff, moist, becoming sandy with depth, soft at 7 feet bgs				555			
					833			
				- SB-29			24	
Γ				2-4				
					888			
				_				
Γ					553			
					ß			
- 5				- SB-29	833		24	
- 5				4-6				
					883			
					KSS .			
					XXX			
					555			
				- SB-29	833		24	
5				6-8	833			
					<u>}</u>			
				-				
	Yellowish-brown sand, fine to medium-grained, loose, moist				888			
					558			
		-		- SB-29	553		24	
				8-10	833			
					833			
- 10	BORING TERMINATED AT 10.0 FEET			_	222			Boring terminated, no refusal, groundwater not
	BORING TERMINATED AT 10.0 FEET							encountered
		99-1-19-1-10-10-10-10-10-10-10-10-10-10-10-10-1						
	DACTOD ACT	d By: Michae Cau	udill L			SOIL	BO	RING RECORD
DRILL	ER: Ted Keen Logge PMENT: Geoprobe 7720DT	d By: Michae Cau		Project:				uisville 500 East Main
METH	IOD: DP			Project I	No:	6680-	-08-9	635 Declara No. 00 00
AMI			Ļ	Checke	d By	y:	715	Boring No.: SB-29
REM	ARKS:					Ĩ	M	IACTEC

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D	DECODIDITION		,	AMPLES		
D E P T	DESCRIPTION	L E E L G E	1 D		RE	REMARKS
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E V N D (ft)		T PID Y (ppm) E	RECOV	Note: No information on the borings should be used without considering the entire content of the main document.
- 0 -	Concrete					
	Dark brown to black sandy silt, with wood fragments and brick debris, loose, moist		- SB-30 0-2		24	
	Yellowish-brown silty clay, with very fine-grained sand, medium stiff, moist, soft, very moist at 7 feet bgs		-			
			- SB-30		24	
			2-4			
- 5 -		-	SB-30 4-6		24	
			-			
DT 10/29/10	Yellowish-brown sand, fine to medium-grained, trace clay, loose, moist		- SB-30 6-8		24	
APLATE 01.GUT			-			
C DATABASE 1EN			~ SB-30 8-10		24	
MACTEC ENV SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.G - 01 - 01 - 01 - 01 - 01 - 01 - 01 - 01	BORING TERMINATED AT 10.0 FEET		_			Boring terminated, no refusal, groundwater not encountered
D BOHING						
E START	ACTOR: AST	d By: Michael J. Caudill		SOIL	BO	RING RECORD
DRILLE EQUIPN METHO	R: Ted Keen Logger MENT: Geoprobe 7720DT	d By: Michael J. Caudill	Project: Project I			uisville 500 East Main 1635
	DIA.: 2.75 ER: Automatic		Checker	d By:	SK	Boring No.: SB-30
MACTEC	i vez			Ż	M	IACTEC

MACTEC ENV SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.GDT 10/29/10

D E P	DESCRIPTION	LE	SA	MPLES		REMARKS
T		E L G E E V		T PID Y (ppm)	RECOV	
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E V N D (ft)	1 51 1	E	0 V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0	Concrete Dark brown to black sandy silt, with gravel, brick fragments and yellowish-brown silty clay fragments, loose, moist		- SB-31 0-2		24	
	Yellowish-brown silty clay, with very fine-grained sand, medium stiff, moist, becoming siltier with depth, very moist, very soft at 7 feet bgs		- SB-31 2-4		24	
- 5 -			- SB-31 4-6		24	
	Yellowish-brown sand, fine to medium-grained, loose, moist, trace clay at 8 feet bgs		- SB-31 6-8		24	
	BORING TERMINATED AT 10.0 FEET		- SB-31 8-10		24	Boring terminated, no refusal, groundwater not encountered
MAGLIEG ENV SOIL BOHING WITH PID BOHING LUGSSEN MALLED DATABASE LEWITCHTE UTSAU - 01 - 01 - 01 - 01 - 01 - 01 - 01 - 01	RACTOR: AST Logge ER: Ted Keen Logge MENT: Geoprobe 7720DT DD: DD: DP DIA.: DIA.: 2.75 ER: Automatic	ed By: Michael J. Caudill ed By: Michael J. Caudill	Project: Project N Checked	Bosc lo: 6680 By:	h Loi -08-9 5K	

MACTEC ENV SOIL BORING WITH PID BORING LOGS.GPJ MACTEC DATABASE TEMPLATE 01.GDT 10/29/10

D E	DESCRIPTION	L	E SAMPLES REMARKS					
		E G	L E	l D	т	PID	RECO	REMARKS
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	E N D	V (ft)	E N T	Y P E	(ppm)	C O V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0 -	Concrete				<u>}</u> }			
	Black silty sand, trace gravel, slag fragments, loose, moist Yellowish-brown silty clay, with very fine-grained sand, soft, moist, becoming sandier with depth, very soft at 7.5 feet bgs			- SB-32 0-2			24	
				-				
				- SB-32 2-4			24	
- 5				- SB-32 4-6			24	
	Yellowish-brown sand, fine to medium-grained, trace gravel,			- SB-32 6-8			24	
	loose, moist			-				
				- SB-32 8-10			24	
		-		- SB-32 10-12			24	
	Yellowish-brown silty clay, soft, moist			10-12	883			
	Yellowish-brown sand, fine to medium-grained, loose, moist, trace clay 17.5 to 18 feet bgs, very soft, wet							
				- SB-32 12-14			24	
GDT 10/29/10		-		-				
		-		- SB-32 14-16			24	•
TEMPLATE		-		-				
ATABASE				- SB-32 16-18			24	
MACTEC C				- SB-32 18-20			24	
MACTEC ENV SOIL BORING WITH PID BORING LOGS GPJ MACTEC ENVELATE DI THATA AND AND AND AND AND AND AND AND AND AN	BORING TERMINATED AT 20.0 FEET			18-20				Boring terminated, no refusal, groundwater not encountered
SORING						www.concorrection.com		
E START ≤ CONTR	ACTOR: AST	udill 🗋	and the second			act-actractions	RING RECORD	
DRILLE EQUIPN METHO	AENT: Geoprobe 7720DT	l By: Michae Cau	ıdill	Project: Project N	۱o:			iisville 500 East Main 635
	R: Automatic			Checked			K	Boring No.: SB-32
WACTEC MACTEC						-	M	ACTEC

D E P	DESCRIPTION	L	E	S	AN	APLES	· _	REMARKS
T		н G E	L E V	D D	TY	PID (ppm)	<u>к</u> шсо	
H (ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	N	(ft)	E N T	P E	(ppm)	0 V (in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0 -	Concrete				<u>}</u>			
	Black silty sand, trace gravel, loose, moist			SB-33 0-2			24	
	Yellowish-brown silty clay, trace very fine-grained sand, soft, moist, light gray mottles, becoming siltier with depth, very soft, very moist at 7 feet bgs		-	SB-33 2-4			24	
			-	- SB-33			24	
				4-6				
	Yellowish-brown sand, fine to medium-grained, loose, moist,		-	SB-33 6-8			24	
				SB-33 8-10			24	
- 10 -				- SB-33 10-12			24	
				- SB-33 12-14			24	
	Yellowish-brown silty clay, very moist to wet, soft		-	- SB-33 14-16			24	
	Yellowish-brown sand, fine to medium-grained, trace gravel, loose, moist, trace clay 18 to 18.5 feet bgs			- SB-33 16-18			24	
				- SB-33 18-20			24	
- 20 -	BORING TERMINATED AT 20.0 FEET		~	-	222			Boring terminated, no refusal, groundwater n encountered
START D		d By: Michael Caudi	J.		Bernanger.	SOIL	во	RING RECORD
CONTRA DRILLEF EQUIPM METHOI HOLE DI	R: Ted Keen Logged IENT: Geoprobe 7720DT D: DP IA.: 2.75	Caud By: Michael Caudi Caudi). F F	Project: Project N Checkec	lo:	Bosch	Lol 08-9	isville 500 East Main
HAMMEI REMARI					•			ACTEC

D E	DESCRIPTION	L E E L		SAN	N PLES		REMARKS
P T H		G E V	D E	T Y D	PID (ppm)	RECO	Note: No information on the borings should
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	D (ft)	I NI	P E		V (in.)	be used without considering the entire content of the main document.
	Concrete						
	Black silty sand, trace gravel and yellowish-brown silty clay, loose, moist		- SB-34 0-2			24	
	Yellowish-brown silty clay, medium stiff, molst, becoming siltier with depth, trace fine sand, soft, very molst 7.5 to 8 feet bgs		- SB-34			24	
			- 2-4				
- 5 -			- SB-34 4-6			24	
			- SB-34			24	
	Yellowish-brown sand, fine to medium-grained, trace gravel,		6-8				
	loose moist		- SB-34 8-10			24	
- 10 -			-			24	
			- SB-34 10-12 -			24	
			- SB-34 12-14			24	
- 15			— SB-34 14-16			24	
	No recovery		-				
		-	- SB-34 16-18			0	
			- SB-34			0	
- 20	BORING TERMINATED AT 20.0 FEET		18-20				Boring terminated, no refusal, groundwater not encountered
							L
START	DATE: 10/7/2010 Prepare	d By: Michael J.			SOIL	BO	RING RECORD
DRILLE	ACTOR: AST R: Ted Keen Logger	Caudill d By: Michael J. Caudill	Project:	•	1009-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0		isville 500 East Main
EQUIPM METHO HOLE D HAMME	D: DP NA.: 2.75	Gaudii	Project Checke	No:	6680		
HAMME REMAR						″M	IACTEC

D			F SAMPLES			
DEP	DESCRIPTION	E				REMARKS
Ť				T Y P	PID E (ppm) C	Note: No information on the borings should
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	D (ft) N	PE	1	De used without considening the entire
	Concrete	123021		-222	(in	a.) Content of the main document.
				- KS		
ŀ	 Black silty sand, trace gravel with yellowish-brown silty clay fragments, loose, moist 		- SB-35 0-2	633	2	4
	Yellowish-brown silty clay, medium stiff, moist		0-2	83		
F	-		-	558		
				RSA		
ŀ	-		- SB-35 2-4	858	2	4
				RSS		
f			-	ŔŔ		
			- SB-35	655	2	4
- 5	7		4-6	\$ \$	4	4+
			-	553		
				KSS		
L			~ SB-35	R\$\$	2	4
			6-8	655		
Ļ	Yellowish-brown sand, fine to medium-grained, loose, moist		-			
	renowisi polowiti sand, nine to medium granica, noise, moise			833		
F	-		- SB-35	ß	2	4
			8-10	833		
- 10	-	-	-	822		
				K		
F	-		- SB-36 10-12	655	2	4
			10-12	88		
ŀ	-		-	252		
				833		
ł	1		- SB-38 12-14	858	2	4
2				ß		
1			1	R		
5 9. – 15			- SB-38	658		14
			14-16		6	
				555		
				KSS		
	-		- SB-38	653	2	24
			16-18	655		
<u>S</u> L	4		-	<u>}</u>		
				833		
	-		- SB-35 18-20	- KSS	2	24
LD-0			10-20	833		
20	BORING TERMINATED AT 20.0 FEET		-	14		Boring terminated, no refusal, groundwater not
						encountered
	. <u>L'anno 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997</u>					
	T DATE: 10/7/2010 Prepared	By: Michael .	1		~~1I ~	
š con	TRACTOR: AST	Caud		9 9	SUIL B	ORING RECORD
DRIL	LER: Ted Keen Logged PMENT: Geoprobe 7720DT	By: Michael Caud	i Project		Bosch L	ouisville 500 East Main
METH	IOD: DP		Project	No:	6680-08	
17 B	EDIA.: 2.75		Check	ed By	: TSK	Boring No.: SB-35
	MER: Automatic ARKS:					
ACIEC					2 N	MACTEC

D E P	DESCRIPTION	L E E L		SA	MPLES	R	REMARKS
Р Т Н		G E V	D E	T Y P	PID (ppm)	RECOV	Note: No information on the borings should
(ft)	SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	D (ft	N	E		(in.)	Note: No information on the borings should be used without considering the entire content of the main document.
- 0 -	Concrete			K	8		
				8	S		
	Yellowish-brown sandy clay, with brick and metal fragments, moist		- SB-3 0-2	₅ }}	Š	24	
				K	Ś		
	Vellowish-brown silty clay, medium stiff, moist, becoming		_	X	Ş		
	Yellowish-brown silty clay, medium stiff, moist, becoming softer and sandy with depth, soft, very moist at 7 feet bgs			ß	Š		
			- SB-3		Ś	24	
			2-4	° §	S	24	
				R	2 2		
			-	K			
				ß			
- 5 -			- SB-			24	
				S			
				Ř	××××××××××××××××××××××××××××××××××××××		
				Š	Ś		
				ß	X X		
			- SB- 6-6			24	
	Yellowish-brown silty sand, wet 7.5 to 8, moist 8 to 10 feet bgs			S	SS .		· · ·
			-	Ŕ	K<		
				K			
			- SB-	36	× ×	24	
			8-1	° R			
				K			
	BORING TERMINATED AT 10.0 FEET						Boring terminated, no refusal, groundwater not encountered
			<u> </u>				<u> </u>
START		d By: Michael J.			SOIL	BO	RING RECORD
CONTF DRILLE		Caudill d By: Michael J. Caudill		ot:			uisville 500 East Main
EQUIPI METHO HOLE I	DD: DP		Proje	t No			
START CONTE DRILLE EQUIPI METHO HOLE I HAMMI REMAR	ER: Automatic		Chec	ed	By:		
-						۲N.	IACTEC

APPENDIX D

LABORATORY REPORTS SOIL SAMPLES



YOUR LAB OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223

Report Summary

Friday October 22, 2010

Report Number: L482930 Samples Received: 10/08/10 Client Project: 6680-08-9635

Description: RBTC-500 VAC

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Luchi Auto

Leslie Newton , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487 GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140 NJ - TN002,NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233 AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A, TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences. Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S				Tax I.D. 62-081428				19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	per 22, 2010							
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : SB-1 0-2 FT Collected By : Michael J. Caud Collection Date : 10/04/10 10:08	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	90.			mV		2580	10/11/10	1
PH	10.			su		9045D	10/12/10	1
Chromium Lead	53. 260	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-01 (PH) - 10@19.0c

Page 2 of 142

EXERCISE SIGNAL						Mt. Jul: (615) 79 1-800-70 Fax (619 Tax I.D	57-5859 5) 758-5859 . 62-081428	ı.
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	ber 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-1 2-5 FT Collected By : Michael J. Cauc Collection Date : 10/04/10 10:12	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	72.	3.1	20.	mg/kg		3060A/7	10/12/10	10
ORP	110			mV		2580	10/11/10	1
PH	7.3			su		9045D	10/12/10	1
Chromium Lead	110 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-02 (PH) - 7.3@19.3c

Page 3 of 142

XESC						Mt. Juli (615) 75 1-800-76		
						Tax I.D.	62-081428	19
YOUR LAB OF CHOICE						Est. 197	0	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-1 5-10 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 10:15	ouisville,	КY		Site	Sample # : ID : ect # : 66			
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	7.8	50.	mg/kg	0	3060A/7	10/12/10	25
ORP	160			mV		2580	10/11/10	1
рн	4.4			su		9045D	10/12/10	1
Chromium Lead	360 7.3	0.085 0.090	0.50 0.25	mg/kg mg/kg			10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-03 (CR6) - diluted due to turbidity and color of sample L482930-03 (PH) - 4.4@19.2c

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XESC						Mt. Jul: (615) 79 1-800-70		
L·A·B S·C·I·E·N·C·E·S						Tax I.D	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-2 0-2 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 10:35	Louisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	140			mV		2580	10/11/10	1
рн	7.7			su		9045D	10/12/10	1
Chromium Lead	18. 20.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-04 (PH) - 7.7@19.4c

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XESC						Mt. Jul: (615) 79 1-800-70		
L·A·B S·C·I·E·N·C·E·S						Tax I.D	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010	1		
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-2 2-5 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 10:36	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	150			mV		2580	10/11/10	1
рн	4.9			su		9045D	10/12/10	1
Chromium Lead	20. 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-05 (PH) - 4.9@19.3c

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ELANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octok	ber 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-2 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 10:40	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	38.	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	140			mV		2580	10/11/10	1
PH	6.0			su		9045D	10/12/10	1
Chromium Lead	110 7.1	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-06 (PH) - 6.0@19.4c

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EVANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octok	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-3 0-2 FT Collected By : Michael J. Caud Collection Date : 10/04/10 10:53	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	15.	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	140			mV		2580	10/11/10	1
PH	7.6			su		9045D	10/12/10	1
Chromium Lead	140 23.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-07 (PH) - 7.6@19.3c

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ELAND SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76		
						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	oer 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-3 2-5 FT Collected By : Michael J. Caud Collection Date : 10/04/10 10:56	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	3.0	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	140			mV		2580	10/11/10	1
PH	8.1			su		9045D	10/12/10	1
Chromium Lead	160 500	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-08 (PH) - 8.1@19.2c

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EVAN B SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-3 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 11:08	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	18.	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	130			mV		2580	10/11/10	1
РH	7.6			su		9045D	10/12/10	1
Chromium Lead	55. 7.4	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-09 (PH) - 7.6@19.3c

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E SICILIE INICIEIS						Mt. Jul (615) 79 1-800-76		
						Tax I.D.	. 62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-4 0-2 FT Collected By : Michael J. Caudi	Louisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Collection Date : 10/04/10 11:10								
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	2.6	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	140			mV		2580	10/11/10	1
Нд	7.1			su		9045D	10/12/10	1
Chromium Lead	19. 22.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-10 (PH) - 7.1@19.3c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-4 2-5 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 11:15	Louisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	140			mV		2580	10/11/10	1
РH	5.6			su		9045D	10/12/10	1
Chromium Lead	20. 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-11 (PH) - 5.6@19.2c

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EVAN B SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octok	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-4 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 11:20	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	7.4	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	120			mV		2580	10/11/10	1
Нq	6.3			su		9045D	10/12/10	1
Chromium Lead	8.3 7.6	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-12 (PH) - 6.3@19.3c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-5 0-2 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 11:28	Louisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	110			mV		2580	10/11/10	1
рн	6.6			su		9045D	10/12/10	1
Chromium Lead	19. 11.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-13 (PH) - 6.6@19.3c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-5 2-5 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 11:31	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	130			mV		2580	10/11/10	1
рн	5.6			su		9045D	10/12/10	1
Chromium Lead	20. 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-14 (PH) - 5.6@19.3c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-5 5-10 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 11:36	ouisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	130			mV		2580	10/11/10	1
рн	5.1			su		9045D	10/12/10	1
Chromium Lead	9.2 7.3	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-15 (PH) - 5.1@19.3c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-6 0-2 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 12:50	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	150			mV		2580	10/11/10	1
рн	7.0			su		9045D	10/12/10	1
Chromium Lead	16. 19.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-16 (PH) - 7.0@19.4c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-6 2-5 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 12:55	ouisville,	КҮ		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	120			mV		2580	10/11/10	1
рн	7.0			su		9045D	10/12/10	1
Chromium Lead	20. 28.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-17 (PH) - 7.0@19.4c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-6 5-10 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 13:00	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	130			mV		2580	10/11/10	1
рн	7.1			su		9045D	10/12/10	1
Chromium Lead	12. 10.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-18 (PH) - 7.1@19.4c

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XESC						Mt. Jul (615) 79 1-800-76		
L+A+B S+C+I+E+N+C+E+S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-7 0-2 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 13:05	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	130			mV		2580	10/11/10	1
рН	7.6			su		9045D	10/12/10	1
Chromium Lead	51. 56.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-19 (PH) - 7.6@19.5c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2010 Description : RBTC-500 VAC - Louisville, KY Sample ID : SB-7 2-5 FT Collected By : Michael J. Caudill Collection Date : 10/04/10 13:10								
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	120			mV		2580	10/11/10	1
рн	6.8			su		9045D	10/12/10	1
Chromium Lead	27. 12.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-20 (PH) - 6.8@19.5c

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EVAN B SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-7 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 13:15	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	28.	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	130			mV		2580	10/11/10	1
PH	5.3			su		9045D	10/12/10	1
Chromium Lead	190 6.8	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-21 (PH) - 5.3@19.7c

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XESC						Mt. Juli (615) 75 1-800-76		
						Tax I.D.	62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-8 0-2 FT Collected By : Michael J. Caudi Collection Date : 10/04/10 13:33	ouisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	540	7.8	50.	mg/kg	V	3060A/7	10/12/10	25
ORP	150			mV		2580	10/11/10	1
рН	4.3			su		9045D	10/12/10	1
Chromium Lead	4000 15.	0.17 0.090	1.0 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-22 (PH) - 4.3@19.7c L482930-22 (CR6) - reducer

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VOUR LAB OF CHOICE						Mt. Jul (615) 79 1-800-76 Fax (619	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223								
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : SB-8 2-5 FT Collected By : Michael J. Caud Collection Date : 10/04/10 13:35	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	270	3.1	20.	mg/kg		3060A/7	10/12/10	10
ORP	150			mV		2580	10/11/10	1
Н	5.1			su		9045D	10/12/10	1
Chromium Lead	1100 11.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-23 (PH) - 5.1@19.7c

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EVALUE SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223								
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-8 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 13:40	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	180	3.1	20.	mg/kg		3060A/7	10/12/10	10
ORP	140			mV		2580	10/11/10	1
Hq	6.6			su		9045D	10/12/10	1
Chromium Lead	830 24.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-24 (PH) - 6.6@19.9c

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EVERSE SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-8 10-20 FT Collected By : Michael J. Caud Collection Date : 10/04/10 13:45	Site	ID :	L482930 80-08-96					
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	3.4	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	150			mV		2580	10/11/10	1
PH	8.2			su		9045D	10/12/10	1
Chromium Lead	28. 3.8	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-25 (PH) - 8.2@19.9c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : SB-9 0-2 FT Collected By : Michael J. Caud: Collection Date : 10/04/10 14:00	Louisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	8.4	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	140			mV		2580	10/11/10	1
РH	7.9			su		9045D	10/12/10	1
Chromium Lead	52. 11.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-26 (PH) - 7.9@20.0c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2010 Description : RBTC-500 VAC - Louisville, KY Sample ID : SB-9 2-5 FT Collected By : Michael J. Caudill Collection Date : 10/04/10 14:05								
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	17.	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	130			mV		2580	10/11/10	1
РH	7.8			su		9045D	10/12/10	1
Chromium Lead	77. 11.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-27 (PH) - 7.8@19.9c

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EVANB SICILIENNICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-9 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 14:10	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	2.2	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	140			mV		2580	10/11/10	1
PH	7.5			su		9045D	10/12/10	1
Chromium Lead	25. 7.6	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-28 (PH) - 7.5@20.0c

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ELANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-9 10-20 FT Collected By : Michael J. Caud Collection Date : 10/04/10 14:15	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	5.2	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	130			mV		2580	10/11/10	1
РH	6.7			su		9045D	10/12/10	1
Chromium Lead	18. 4.0	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-29 (PH) - 6.7@19.9c

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ELAB SICILEINICIES						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19*	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-10 0-2 FT Collected By : Michael J. Caud Collection Date : 10/04/10 14:35	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	5.9	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	120			mV		2580	10/11/10	1
Н	9.0			su		9045D	10/12/10	1
Chromium Lead	79. 15.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-30 (PH) - 9.0@19.9c

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ESC IVE NVCVEVS						Mt. Jul (615) 79 1-800-76		
						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-10 2-5 FT		КY		Site	ID :	L482930		
Collected By : Michael J. Caudi Collection Date : 10/04/10 14:40	11			Proj€	ect # : 66	80-08-96	35	
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	140			mV		2580	10/11/10	1
рн	8.5			su		9045D	10/12/10	1
Chromium Lead	64. 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-31 (PH) - 8.5@20.0c

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EVERSE SACINE IN CIERS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - : Sample ID : SB-10 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 14:45	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	4.5	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	16.			mV		2580	10/12/10	1
Нд	7.2			su		9045D	10/09/10	1
Chromium Lead	130 49.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-32 (PH) - 7.2@19.9c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-10 10-20 FT Collected By : Michael J. Caudi	Louisville,	КY		Site	ID :	L482930		
Collection Date : 10/04/10 14:50 Parameter	Result	MDL	RDL	Units	Oualifier	Method	Date	Dil.
Chromium, Hexavalent	4.1	0.31	2.0	mg/kg	~	3060A/7	10/12/10	1
ORP	8.0			mV		2580	10/12/10	1
PH	8.3			su		9045D	10/09/10	1
Chromium Lead	28. 4.4	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-33 (PH) - 8.3@20.7c

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EVANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-11 0-2 FT Collected By : Michael J. Caud Collection Date : 10/04/10 15:13	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	5.9	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	46.			mV		2580	10/12/10	1
PH	5.9			su		9045D	10/09/10	1
Chromium Lead	120 14.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-34 (PH) - 5.9@20.6c

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ESC IVE NICLES						Mt. Jul (615) 75 1-800-76 Fax (615)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPC	ORT OF ANAL	YSIS	Octol	ber 22, 2010	Est. 197	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - 3 Sample ID : SB-11 2-5 FT Collected By : Michael J. Caud Collection Date : 10/04/10 15:15	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	17.	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	65.			mV		2580	10/12/10	1
рH	4.6			su		9045D	10/09/10	1
Chromium Lead	200 24.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-35 (PH) - 4.6@20.4c

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EVALUE SICILIEINICIEIS						Mt. Jul: (615) 75 1-800-76 Fax (615	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octol	oer 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-11 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 15:20	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	16.	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	68.			mV		2580	10/12/10	1
PH	4.8			su		9045D	10/09/10	1
Chromium Lead	160 8.2	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-36 (PH) - 4.8@20.3c

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ESC IVE NVCVEVS						Mt. Juli (615) 75 1-800-76		
						Tax I.D.	62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010	I		
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-12 0-2 FT Collected By : Michael J. Caudi	ouisville,	КY		Site	ID :	L482930		
Collection Date : 10/04/10 15:50 Parameter	Result	MDL	RDL	Units	Oualifier	Mothod	Data	Dil.
Chromium, Hexavalent	3.8	0.31	2.0	mg/kg	Qualifier		10/12/10	
ORP	65.	0.31	2.0	mV		2580	10/12/10	
рН	7.8			su		9045D	10/09/10	
Chromium Lead	58. 12.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-37 (PH) - 7.8@20.3c

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EVALUE SICILIEINICIEIS						Mt. Jul: (615) 79 1-800-70 Fax (619 Tax I.D	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-12 2-5 FT Collected By : Michael J. Caud Collection Date : 10/04/10 15:55	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	17.	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	27.			mV		2580	10/12/10	1
РН	7.6			su		9045D	10/09/10	1
Chromium Lead	89. 15.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-38 (PH) - 7.6@20.2c

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EFARE SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19 [°]	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-12 5-10 FT Collected By : Michael J. Cauc Collection Date : 10/04/10 16:00	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	2.6	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	52.			mV		2580	10/12/10	1
Нq	7.4			su		9045D	10/09/10	1
Chromium Lead	37. 8.6	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-39 (PH) - 7.4@20.3c

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EVAN B SIGNIFEINIGIES						Mt. Jul (615) 75 1-800-76 Fax (615)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		DRT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - : Sample ID : SB-13 0-2 FT Collected By : Michael J. Caud Collection Date : 10/04/10 15:35	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	2.3	0.31	2.0	mg/kg		3060A/7	10/12/10	1
ORP	55.			mV		2580	10/12/10	1
Нq	7.0			su		9045D	10/09/10	1
Chromium Lead	76. 14.	0.085 0.090	0.50 0.25	mg/kg mg/kg	J3J6	6010B 6010B	10/13/10 10/13/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-40 (PH) - 7.0@20.3c

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LAND SICILIEINICIEIS						Mt. Juli (615) 75 1-800-76 Fax (615	57-5859 5) 758-5859 62-081428)
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 12 Louisville, KY 40223		ORT OF ANAL	YSIS	Octol	ber 22, 2010			
Date Received : October 08, Description : RBTC-500 VAC - Sample ID : SB-13 2-5 FT Collected By : Michael J. Cau Collection Date : 10/04/10 15:40	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	61.	1.6	10.	mg/kg		3060A/7	10/13/10	5
ORP	79.			mV		2580	10/12/10	1
PH	5.1			su		9045D	10/09/10	1
Chromium Lead	330 19.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-41 (PH) - 5.1@20.4c

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VOUR LAB OF CHOICE						Mt. Jul: (615) 79 1-800-70 Fax (619 Tax I.D	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	ber 22, 2010	Est. 19'	70	
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-13 5-10 FT Collected By : Michael J. Caud: Collection Date : 10/04/10 15:45	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	28.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	85.			mV		2580	10/12/10	1
Нд	4.8			su		9045D	10/12/10	1
Chromium Lead	140 11.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-42 (PH) - 4.8@19.6c

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VOUR LAB OF CHOICE						Mt. Jul: (615) 79 1-800-70 Fax (619	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		DRT OF ANAL	YSIS	Octol	oer 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : SB-14 0-2 FT Collected By : Michael J. Caud Collection Date : 10/04/10 16:00	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	8.5	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	80.			mV		2580	10/12/10	1
РH	7.7			su		9045D	10/12/10	1
Chromium Lead	87. 25.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-43 (PH) - 7.7@19.7c

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EVANE SICILIEINICIE						Mt. Jul: (615) 79 1-800-70 Fax (619 Tax I.D	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-14 2-5 FT Collected By : Michael J. Cauc Collection Date : 10/04/10 16:15	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	87.	1.6	10.	mg/kg		3060A/7	10/13/10	5
ORP	92.			mV		2580	10/12/10	1
РH	5.9			su		9045D	10/12/10	1
Chromium Lead	140 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-44 (PH) - 5.9@19.5c

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E SICILE NICIES						Mt. Juli (615) 75 1-800-76 Fax (615		ı
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octol	per 22, 2010	Est. 197	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-14 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 16:20	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	15.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	76.			mV		2580	10/12/10	1
рH	7.0			su		9045D	10/12/10	1
Chromium Lead	130 10.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-45 (PH) - 7.0@19.4c

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EFARB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : SB-15 0-2 FT Collected By : Michael J. Caud. Collection Date : 10/05/10 08:45	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	4.6	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	85.			mV		2580	10/12/10	1
Н	5.2			su		9045D	10/12/10	1
Chromium Lead	240 31.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-46 (PH) - 5.2@19.4c

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ELAB SICILEINICIES						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19*	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-15 2-5 FT Collected By : Michael J. Caud Collection Date : 10/05/10 08:50	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	26.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	87.			mV		2580	10/12/10	1
Н	6.4			su		9045D	10/12/10	1
Chromium Lead	100 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-47 (PH) - 6.4@19.3c

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LEAR SECTION CONTRACTOR						Mt. Jul: (615) 75 1-800-76 Fax (615	57-5859 5) 758-5859 . 62-081428	ı.
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octol	oer 22, 2010		-	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-15 5-10 FT Collected By : Michael J. Caud Collection Date : 10/05/10 08:55	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	20.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	99.			mV		2580	10/12/10	1
РH	5.1			su		9045D	10/12/10	1
Chromium Lead	74. 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-48 (PH) - 5.1@20.0c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-15 10-20 FT	ouisville,	КY		Site	ID :	L482930 80-08-96		
Collected By : Michael J. Caudi Collection Date : 10/05/10 09:00	11							
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	8.8	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	90.			mV		2580	10/12/10	1
PH	7.5			su		9045D	10/12/10	1
Chromium Lead	65. 6.5	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-49 (PH) - 7.5@20.1c

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EXERCISE SIGNAL						Mt. Jul (615) 79 1-800-76		
						Tax I.D.	. 62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octok	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-16 0-2 FT Collected By : Michael J. Caud: Collection Date : 10/05/10 09:10	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	6.3	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	54.			mV		2580	10/12/10	1
Нд	10.			su		9045D	10/12/10	1
Chromium Lead	990 76.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-50 (PH) - 10@19.8c

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XESC						Mt. Jul (615) 75 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2010 Description : RBTC-500 VAC - Louisville, KY Sample ID : SB-16 2-5 FT Collected By : Michael J. Caudill Collection Date : 10/05/10 09:15								
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	11.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	96.			mV		2580	10/12/10	1
Н	8.1			su		9045D	10/12/10	1
Chromium Lead	480 51.	0.085 0.090	0.50 0.25	mg/kg mg/kg	J3V J3V	6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-51 (PH) - 8.1@19.6c

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ELAND SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-16 5-10 FT Collected By : Michael J. Caud: Collection Date : 10/05/10 09:20	ouisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	14.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	43.			mV		2580	10/12/10	1
Нд	6.8			su		9045D	10/14/10	1
Chromium Lead	97. 12.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-52 (PH) - 6.8@20.0c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANALY	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-16 10-20 FT Collected By : Michael J. Caudi Collection Date : 10/05/10 09:25	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	13.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	22.			mV		2580	10/12/10	1
рН	5.1			su		9045D	10/14/10	1
Chromium Lead	43. 4.9	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-53 (PH) - 5.1@20.4c

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EVAN B SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619		ı
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		DRT OF ANAL	YSIS	Octol	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-17 0-2 FT Collected By : Michael J. Cauc Collection Date : 10/05/10 09:40	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	12.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	44.			mV		2580	10/12/10	1
рH	7.6			su		9045D	10/14/10	1
Chromium Lead	470 130	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-54 (PH) - 7.6@20.1c

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EVALUE SICILIEINICIEIS						Mt. Jul: (615) 79 1-800-70 Fax (619 Tax I.D	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-17 2-5 FT Collected By : Michael J. Caud Collection Date : 10/05/10 09:45	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	11.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	33.			mV		2580	10/12/10	1
Н	7.2			su		9045D	10/14/10	1
Chromium Lead	39. 22.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-55 (PH) - 7.2@19.9c

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ELAB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	ber 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-17 5-10 FT Collected By : Michael J. Caud Collection Date : 10/05/10 09:50	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	7.9	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	32.			mV		2580	10/12/10	1
РH	5.0			su		9045D	10/14/10	1
Chromium Lead	36. 9.2	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-56 (PH) - 5.0@19.9c

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ELAIB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-17 10-20 FT Collected By : Michael J. Caud: Collection Date : 10/05/10 09:55	ouisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	6.5	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	27.			mV		2580	10/12/10	1
Нд	7.7			su		9045D	10/14/10	1
Chromium Lead	26. 5.6	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-57 (PH) - 7.7@19.8c

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EVANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	oer 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC -		VV		ESC S	Sample # :	L482930	-58	
Sample ID : SB-18 0-2 FT	LOUISVIIIE,	K1		Site	ID :			
Collected By : Michael J. Caud Collection Date : 10/05/10 10:15	lill			Proje	ect # : 66	80-08-96	35	
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	33.			mV		2580	10/12/10	1
Нq	7.4			su		9045D	10/14/10	1
Chromium Lead	23. 14.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-58 (PH) - 7.4@19.6c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-18 2-5 FT Collected By : Michael J. Caud: Collection Date : 10/05/10 10:20	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	55.			mV		2580	10/12/10	1
РН	4.8			su		9045D	10/14/10	1
Chromium Lead	11. 16.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-59 (PH) - 4.8@19.2c

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ELANB SICILIEINICIEIS						Mt. Jul: (615) 79 1-800-70 Fax (619		9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	1		
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-18 5-10 FT Collected By : Michael J. Caud Collection Date : 10/05/10 10:25	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	8.2	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	55.			mV		2580	10/12/10	1
РH	4.6			su		9045D	10/14/10	1
Chromium Lead	48. 7.9	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-60 (PH) - 4.6@19.2c

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XESC						Mt. Jul (615) 79 1-800-76		
						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-18 10-20 FT Collected By : Michael J. Caudi Collection Date : 10/05/10 10:30	ouisville,	КҮ		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	7.0	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	59.			mV		2580	10/12/10	1
рн	4.4			su		9045D	10/14/10	1
Chromium Lead	70. 6.1	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-61 (PH) - 4.4@19.4c

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EVANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	oer 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-19 0-2 FT Collected By : Michael J. Caud Collection Date : 10/05/10 10:50	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	13.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	32.			mV		2580	10/12/10	1
Нq	8.1			su		9045D	10/14/10	1
Chromium Lead	70. 36.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-62 (PH) - 8.1@18.8c

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EVAN B SICILIEINICIEIS						Mt. Jul: (615) 79 1-800-70 Fax (619)
YOUR LAB OF CHOICE	REPC	ORT OF ANAL	YSIS	Octol	per 22, 2010	Est. 19'	70	
MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223					, ,			
Date Received : October 08, 2 Description : RBTC-500 VAC -		КY			1 .	L482930	-63	
Sample ID : SB-19 2-5 FT					ID :			
Collected By : Michael J. Caud Collection Date : 10/05/10 10:55	ill			Proje	ect # : 66	80-08-96	35	
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	31.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	33.			mV		2580	10/12/10	1
PH	5.9			su		9045D	10/14/10	1
Chromium Lead	100 10.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-63 (PH) - 5.9@19.0c

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EVANB SICILIENNICIEIS						Mt. Jul: (615) 79 1-800-70 Fax (619)
YOUR LAB OF CHOICE						Est. 19'	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	1		
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-19 5-10 FT Collected By : Michael J. Caud Collection Date : 10/05/10 11:00	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	18.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	43.			mV		2580	10/12/10	1
рH	5.8			su		9045D	10/14/10	1
Chromium Lead	69. 7.3	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-64 (PH) - 5.8@18.9c

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XESC						Mt. Jul (615) 79 1-800-76		
						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-19 10-20 FT Collected By : Michael J. Caudi Collection Date : 10/05/10 11:05	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	11.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	60.			mV		2580	10/12/10	1
pH	4.5			su		9045D	10/14/10	1
Chromium Lead	42. 6.1	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-65 (PH) - 4.5@19.0c

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EVERSE SICILIE IN CIEIS						Mt. Jul (615) 75 1-800-76 Fax (615)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 197	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-20 0-2 FT Collected By : Michael J. Caud Collection Date : 10/05/10 11:20	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	14.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	55.			mV		2580	10/12/10	1
РH	8.5			su		9045D	10/14/10	1
Chromium Lead	580 130	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-66 (PH) - 8.5@18.6c

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EFARB SICILIEINICIEIS						Mt. Jul: (615) 79 1-800-70 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-20 2-5 FT Collected By : Michael J. Caud Collection Date : 10/05/10 11:25	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	12.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	57.			mV		2580	10/12/10	1
Н	4.6			su		9045D	10/14/10	1
Chromium Lead	390 29.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-67 (PH) - 4.6@18.9c

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LAND SOCIOENNECIES						Mt. Jul: (615) 7 1-800-7 Fax (61)	57-5859 5) 758-5859 . 62-081428	9
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octol	oer 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-20 5-10 FT Collected By : Michael J. Caud: Collection Date : 10/05/10 11:30	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	10.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	57.			mV		2580	10/12/10	1
Нq	4.4			su		9045D	10/14/10	1
Chromium Lead	150 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-68 (PH) - 4.4@18.7c

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ELANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-21 0-2 FT Collected By : Michael J. Caud Collection Date : 10/05/10 11:40	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	57.			mV		2580	10/12/10	1
PH	8.1			su		9045D	10/14/10	1
Chromium Lead	70. 210	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-69 (PH) - 8.1@19.3c

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EFARB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-21 2-5 FT Collected By : Michael J. Caud Collection Date : 10/05/10 11:45	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	4.4	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	47.			mV		2580	10/12/10	1
Н	6.7			su		9045D	10/14/10	1
Chromium Lead	140 48.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-70 (PH) - 6.7@18.6c

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ELAIB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octok	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-21 5-10 FT Collected By : Michael J. Caudi Collection Date : 10/05/10 11:50	ouisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	8.4	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	64.			mV		2580	10/12/10	1
Н	6.9			su		9045D	10/14/10	1
Chromium Lead	83. 28.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-71 (PH) - 6.9@18.9c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - 3 Sample ID : SB-22 0-2 FT Collected By : Michael J. Caud Collection Date : 10/05/10 12:55	Louisville,	КY		Site	Sample # : ID : ect # : 66	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	-22.			mV		2580	10/13/10	1
РH	8.2			su		9045D	10/13/10	1
Chromium Lead	14. 110	0.085 0.45	0.50 1.3	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-72 (PH) - 8.2@20.3c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010	I		
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-22 2-5 FT Collected By : Michael J. Caudi Collection Date : 10/05/10 13:00	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	-3.0			mV		2580	10/13/10	1
рн	7.8			su		9045D	10/13/10	1
Chromium Lead	42. 450	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-73 (PH) - 7.8@20.2c

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EVERSE SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octok	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : SB-22 5-10 FT Collected By : Michael J. Caud: Collection Date : 10/05/10 13:05	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	-7.0			mV		2580	10/13/10	1
Н	7.8			su		9045D	10/13/10	1
Chromium Lead	72. 540	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-74 (PH) - 7.8@20.1c

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ELAB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-23 0-2 FT Collected By : Michael J. Caud Collection Date : 10/05/10 13:20	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	-11.			mV		2580	10/13/10	1
PH	9.7			su		9045D	10/13/10	1
Chromium Lead	22. 130	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-75 (PH) - 9.7@20.1c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	oer 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-23 2-5 FT Collected By : Michael J. Caud: Collection Date : 10/05/10 13:25	Louisville,	КY		Site	Sample # : ID : ect # : 66	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	-7.0			mV		2580	10/13/10	1
рн	8.2			su		9045D	10/13/10	1
Chromium Lead	20. 420	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-76 (PH) - 8.2@19.9c

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ELAY B SICILIEINICIEIS						Mt. Jul: (615) 75 1-800-76 Fax (615)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		DRT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-23 5-10 FT Collected By : Michael J. Caud Collection Date : 10/05/10 13:30	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	20.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	3.0			mV		2580	10/13/10	1
PH	8.4			su		9045D	10/13/10	1
Chromium Lead	190 280	0.085 0.090	0.50 0.25	mg/kg mg/kg	J3J6 V	6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-77 (PH) - 8.4@20.1c

ELANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-24 0-2 FT Collected By : Michael J. Caud Collection Date : 10/05/10 13:35	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	-5.0			mV		2580	10/13/10	1
РH	8.1			su		9045D	10/13/10	1
Chromium Lead	29. 21.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-78 (PH) - 8.1@20.0c

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EVAN B SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-24 2-5 FT Collected By : Michael J. Caud Collection Date : 10/05/10 13:40	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	-22.			mV		2580	10/13/10	1
PH	7.9			su		9045D	10/13/10	1
Chromium Lead	28. 19.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-79 (PH) - 7.9@20.0c

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VOUR LAB OF CHOICE						Mt. Juli (615) 75 1-800-76 Fax (615 Tax I.D.	57-5859 5) 758-5859 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 197	0	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-24 5-10 FT Collected By : Michael J. Caud Collection Date : 10/05/10 13:45	Louisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	3.4	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	-33.			mV		2580	10/13/10	1
Н	8.0			su		9045D	10/13/10	1
Chromium Lead	14. 7.9	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-80 (PH) - 8.0@19.9c

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EVAN B SICILIEINICIEIS						Mt. Jul: (615) 7! 1-800-70 Fax (61!	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octol	oer 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-25 0-2 FT Collected By : Michael J. Caud Collection Date : 10/05/10 13:50	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	8.7	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	-1.0			mV		2580	10/13/10	1
PH	7.7			su		9045D	10/13/10	1
Chromium Lead	77. 12.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-81 (PH) - 7.7@19.9c

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EVERSE SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 197	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-25 2-5 FT Collected By : Michael J. Caud Collection Date : 10/05/10 13:55	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	31.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	13.			mV		2580	10/13/10	1
Н	7.5			su		9045D	10/13/10	1
Chromium Lead	64. 12.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-82 (PH) - 7.5@19.8c

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EFARB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : SB-25 5-10 FT Collected By : Michael J. Caud: Collection Date : 10/05/10 14:00	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	18.	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	8.0			mV		2580	10/13/10	1
Нд	7.1			su		9045D	10/13/10	1
Chromium Lead	41. 9.2	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-83 (PH) - 7.1@19.8c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octok	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-26 0-2 FT Collected By : Michael J. Caud: Collection Date : 10/06/10 09:55	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	22.			mV		2580	10/13/10	1
РН	7.8			su		9045D	10/13/10	1
Chromium Lead	11. 17.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-84 (PH) - 7.8@19.8c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP(ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - 3 Sample ID : SB-26 2-5 FT Collected By : Michael J. Caud. Collection Date : 10/06/10 11:20	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	29.			mV		2580	10/13/10	1
Н	7.3			su		9045D	10/13/10	1
Chromium Lead	17. 10.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-85 (PH) - 7.3@19.7c

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ELANB SICILIEINICIEIS						Mt. Jul: (615) 79 1-800-70 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010	1		
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-26 5-10 FT Collected By : Michael J. Caud Collection Date : 10/06/10 11:25	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	33.			mV		2580	10/13/10	1
Нд	5.8			su		9045D	10/13/10	1
Chromium Lead	8.7 7.9	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-86 (PH) - 5.8@19.9c

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-27 4-6 FT Collected By : Michael J. Caudi Collection Date : 10/06/10 11:47	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	2.6	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	36.			mV		2580	10/13/10	1
рн	12.			su		9045D	10/13/10	1
Chromium Lead	41. 9.7	0.085 0.45	0.50 1.3	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-87 (PH) - 12@20.0c

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EVAN B SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		DRT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-28 0-2 FT Collected By : Michael J. Caud Collection Date : 10/07/10 08:35	Louisville,	КҮ		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	52.	1.6	10.	mg/kg		3060A/7	10/13/10	5
ORP	-76.			mV		2580	10/13/10	1
PH	7.6			su		9045D	10/13/10	1
Chromium Lead	570 19.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-88 (PH) - 7.6@19.8c

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EVALUE SICILIEINICIEIS						Mt. Jul: (615) 79 1-800-70 Fax (619 Tax I.D	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octok	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-28 2-5 FT Collected By : Michael J. Caud Collection Date : 10/07/10 08:40	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	61.	3.1	20.	mg/kg		3060A/7	10/13/10	10
ORP	3.0			mV		2580	10/13/10	1
РН	7.2			su		9045D	10/13/10	1
Chromium Lead	200 12.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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EFARB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : SB-28 5-10 FT Collected By : Michael J. Caud: Collection Date : 10/07/10 08:45	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	120	3.1	20.	mg/kg		3060A/7	10/13/10	10
ORP	58.			mV		2580	10/13/10	1
Н	5.2			su		9045D	10/13/10	1
Chromium Lead	160 11.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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ELANB SICILIEINICIEIS						Mt. Juli (615) 75 1-800-76 Fax (615	57-5859 5) 758-5859 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octol	ber 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-29 0-2 FT Collected By : Michael J. Caud Collection Date : 10/06/10 10:20	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	140	7.8	50.	mg/kg		3060A/7	10/13/10	25
ORP	81.			mV		2580	10/13/10	1
Н	7.8			su		9045D	10/12/10	1
Chromium Lead	310 30.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
						Tax I.D.	62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octol	ber 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-29 2-5 FT Collected By : Michael J. Caudi Collection Date : 10/06/10 12:05	ouisville,	КҮ		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	150	16.	100	mg/kg		3060A/7	10/13/10	50
ORP	140			mV		2580	10/13/10	1
рH	6.5			su		9045D	10/12/10	1
Chromium Lead	200 15.	0.085 0.090	0.50 0.25	mg/kg mg/kg			10/15/10 10/15/10	

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EVAN B SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-29 5-10 FT Collected By : Michael J. Caud: Collection Date : 10/06/10 12:10	Louisville,	КҮ		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	24.	0.31	2.0	mg/kg		3060A/7	10/20/10	1
ORP	150			mV		2580	10/13/10	1
Нд	5.8			su		9045D	10/12/10	1
Chromium Lead	45. 9.8	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/21/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-30 0-2 FT Collected By : Michael J. Caudi Collection Date : 10/06/10 10:35	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	150			mV		2580	10/13/10	1
рн	4.6			su		9045D	10/12/10	1
Chromium Lead	14. 250	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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EFARB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octok	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - 3 Sample ID : SB-30 2-5 FT Collected By : Michael J. Caud Collection Date : 10/06/10 13:15	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	150			mV		2580	10/13/10	1
Н	5.2			su		9045D	10/12/10	1
Chromium Lead	17. 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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EVAN B SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-30 5-10 FT Collected By : Michael J. Caud: Collection Date : 10/06/10 13:20	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	150			mV		2580	10/13/10	1
Нд	7.9			su		9045D	10/12/10	1
Chromium Lead	9.5 8.9	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-31 0-2 FT Collected By : Michael J. Caudi Collection Date : 10/06/10 10:52	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	140			mV		2580	10/13/10	1
рH	8.0			su		9045D	10/12/10	1
Chromium Lead	12. 100	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL'	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-31 2-5 FT Collected By : Michael J. Caudi Collection Date : 10/06/10 13:35	ouisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	140			mV		2580	10/13/10	1
рн	7.4			su		9045D	10/12/10	1
Chromium Lead	19. 14.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-31 5-10 FT Collected By : Michael J. Caud: Collection Date : 10/06/10 13:40	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	150			mV		2580	10/13/10	1
Нд	5.3			su		9045D	10/12/10	1
Chromium Lead	12. 10.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-32 0-2 FT Collected By : Michael J. Caudi Collection Date : 10/06/10 14:00	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	3.1	0.31	2.0	mg/kg		3060A/7	10/13/10	1
ORP	150			mV		2580	10/13/10	1
рн	8.6			su		9045D	10/12/10	1
Chromium Lead	540 2900	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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LAND SICILIEINICIEIS						Mt. Jul: (615) 7! 1-800-70 Fax (61!	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octol	oer 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-32 2-5 FT Collected By : Michael J. Caudi Collection Date : 10/06/10 15:00	ouisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	24.	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	140			mV		2580	10/13/10	1
Н	8.2			su		9045D	10/12/10	1
Chromium Lead	74. 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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E SICILE IN CIES						Mt. Juli (615) 75 1-800-76 Fax (615	57-5859 5) 758-5859 62-081428	,
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octol	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-32 5-10 FT Collected By : Michael J. Caud Collection Date : 10/06/10 15:05	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	12.	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	140			mV		2580	10/13/10	1
PH	7.9			su		9045D	10/12/10	1
Chromium Lead	50. 11.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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ELANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octok	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-32 10-20 FT Collected By : Michael J. Caud Collection Date : 10/06/10 15:10	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	7.2	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	130			mV		2580	10/13/10	1
РH	7.2			su		9045D	10/12/10	1
Chromium Lead	27. 8.9	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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EFARB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 12: Louisville, KY 40223		ORT OF ANAL	YSIS	Octok	per 22, 2010	Est. 19'	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-33 0-2 FT Collected By : Michael J. Cauc Collection Date : 10/07/10 15:25	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	2.8	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	120			mV		2580	10/13/10	1
РH	7.3			su		9045D	10/12/10	1
Chromium Lead	21. 13.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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EVANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-33 2-5 FT Collected By : Michael J. Caud Collection Date : 10/07/10 15:35	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	5.2	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	130			mV		2580	10/13/10	1
PH	5.4			su		9045D	10/12/10	1
Chromium Lead	55. 17.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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LAND SICILIEINICIEIS						Mt. Jul: (615) 75 1-800-76 Fax (615	57-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octol	oer 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - I Sample ID : SB-33 5-10 FT Collected By : Michael J. Caudi Collection Date : 10/07/10 15:40	ouisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	15.	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	140			mV		2580	10/13/10	1
Нд	5.3			su		9045D	10/12/10	1
Chromium Lead	42. 11.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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EFARB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-33 10-20 FT Collected By : Michael J. Caud: Collection Date : 10/07/10 15:45	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	3.0	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	120			mV		2580	10/13/10	1
PH	7.2			su		9045D	10/12/10	1
Chromium Lead	22. 9.3	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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ELAND SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-34 0-2 FT Collected By : Michael J. Caud Collection Date : 10/07/10 08:55	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	140			mV		2580	10/13/10	1
РH	7.8			su		9045D	10/12/10	1
Chromium Lead	19. 24.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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EVAN B SICILIE IN CIES						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 19*	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-34 2-5 FT Collected By : Michael J. Caud Collection Date : 10/07/10 09:00	Louisville,	КY		Site	ID :	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	3.8	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	130			mV		2580	10/13/10	1
РН	8.5			su		9045D	10/12/10	1
Chromium Lead	30. 16.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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EVAN SICILIE IN CIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-34 5-10 FT Collected By : Michael J. Caud Collection Date : 10/07/10 09:05	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	9.0	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	110			mV		2580	10/13/10	1
PH	5.8			su		9045D	10/12/10	1
Chromium Lead	37. 9.9	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-34 10-20 FT		КY		Site	Sample # : ID : ect # : 66	L482930		
Collected By : Michael J. Caud: Collection Date : 10/07/10 09:10	111			PIOJE	:CL # • 00	80-08-96	55	
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	15.	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	140			mV		2580	10/13/10	1
РН	6.8			su		9045D	10/12/10	1
Chromium Lead	100 8.4	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - 1 Sample ID : SB-35 0-2 FT Collected By : Michael J. Caud: Collection Date : 10/07/10 10:35	Louisville,	КY		Site	Sample # : ID : ect # : 66	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	16.			mV		2580	10/13/10	1
рн	6.8			su		9045D	10/12/10	1
Chromium Lead	13. 53.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : SB-35 2-5 FT Collected By : Michael J. Caud. Collection Date : 10/07/10 10:40	Sample # : ID : ect # : 66	L482930						
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	6.0			mV		2580	10/13/10	1
Н	7.0			su		9045D	10/12/10	1
Chromium Lead	17. 16.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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ELANB SICILIEINICIEIS						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octok	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-35 5-10 FT Collected By : Michael J. Caud Collection Date : 10/07/10 10:45		Site	ID :	L482930				
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	23.			mV		2580	10/13/10	1
РH	7.8			su		9045D	10/12/10	1
Chromium Lead	14. 14.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	39
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2010 ESC Sample Description : RBTC-500 VAC - Louisville, KY Site ID : Sample ID : SB-35 10-20 FT Project # : Collected By : Michael J. Caudill Project # : Collection Date : 10/07/10 10:50 Project # :							-115 35	
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	10.			mV		2580	10/13/10	1
рн	6.7			su		9045D	10/12/10	1
Chromium Lead	5.0 4.7	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/14/10 10/14/10	

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XESC						Mt. Juli (615) 75 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2010 Description : RBTC-500 VAC - Louisville, KY Sample ID : SB-36 0-2 FT Collected By : Michael J. Caudill Collection Date : 10/07/10 09:50								
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	47.			mV		2580	10/13/10	1
рн	8.1			su		9045D	10/12/10	1
Chromium Lead	8.1 350	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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ELAB SICILIEINICIEIS						Mt. Juli (615) 75 1-800-76 Fax (615)
YOUR LAB OF CHOICE Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010	Est. 197	70	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-36 2-5 FT Collected By : Michael J. Caud Collection Date : 10/07/10 09:55	Site	ID :	L482930 80-08-96					
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	38.			mV		2580	10/13/10	1
Н	7.9			su		9045D	10/12/10	1
Chromium Lead	16. 16.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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EVERSE SIGNAL SI						Mt. Jul (615) 79 1-800-76 Fax (619)
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octok	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - : Sample ID : SB-36 5-10 FT Collected By : Michael J. Caud Collection Date : 10/07/10 10:00	Site	ID :	L482930					
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	25.			mV		2580	10/13/10	1
Н	7.3			su		9045D	10/12/10	1
Chromium Lead	31. 8.7	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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								Mt. Jul (615) 7 1-800-7 Fax (61	67-5859 5) 758-585 . 62-08142	9
Mr. Scott Kelly MACTEC - Louisvi 13425 Eastpoint Louisville, KY 4	Cen	ter Dr. Ste. 122	REPO	ORT OF ANAL	YSIS	Octol	per 22, 2010			
Date Received Description	:	October 08, 201 RBTC-500 VAC - Lo		КY			Sample # : ID :	L482930	-119	
Sample ID	:	EB-1							25	
Collected By Collection Date	:	Michael J. Caudi 10/04/10 16:45	11			Proje	ect # : 66	80-08-96	530	
Parameter			Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium Lead			U U	0.0017 0.0018	0.010 0.0050	mg/l mg/l		6010B 6010B	10/15/10 10/15/10	

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LIAIB SICIL								Mt. Jul (615) 7 1-800-7 Fax (61	67-5859 5) 758-5859 . 62-081428)
	Cen	ter Dr. Ste. 122	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Louisville, KY 40223 Date Received : October 08, 2010 Description : RBTC-500 VAC - Louisville, KY Sample ID : EB-2							ID :	L482930 80-08-96		
Parameter			Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium Lead			U U	0.0017 0.0018	0.010 0.0050	mg/l mg/l		6010B 6010B	10/15/10 10/15/10	

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							Mt. Jul (615) 7 1-800-7 Fax (61	67-5859 5) 758-585 . 62-08142	9
Mr. Scott Kelly MACTEC - Louisvil 13425 Eastpoint (Louisville, KY 40	Center Dr. Ste. 12		DRT OF ANAL	YSIS	Octol	per 22, 2010	I		
Date Received Description Sample ID Collected By Collection Date	Site	ID :	L482930						
Parameter		Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium Lead		U U	0.0017 0.0018	0.010 0.0050	mg/l mg/l		6010B 6010B	10/15/10 10/15/10	

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								Mt. Jul (615) 7 1-800-7 Fax (61	67-5859 5) 758-5859 . 62-081428)
Mr. Scott Kelly MACTEC - Louisvi 13425 Eastpoint Louisville, KY 4	Cen	ter Dr. Ste. 122	REPO	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Louisville, KY 40223 Date Received : October 08, 2010 Description : RBTC-500 VAC - Louisville, KY Sample ID : EB-4 Collected By : Michael J. Caudill							ID :	L482930 80-08-96		
Collection Date Parameter	_	10/07/10 11:30	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium Lead			U U	0.0017 0.0018	0.010 0.0050	mg/l mg/l		6010B 6010B	10/15/10 10/15/10	

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EXERCISE SECTION OF A SECTION O						Mt. Jul: (615) 79 1-800-76		
						Tax I.D	. 62-081428	39
YOUR LAB OF CHOICE						Est. 19'	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		DRT OF ANAL	YSIS	Octo	ber 22, 2010			
Louisville, KY 40223 Date Received : October 08, 2010 Description : RBTC-500 VAC - Louisville, KY Sample ID : DUP-1 Collected By : Michael J. Caudill Collection Date : 10/04/10 00:00 ESC Sample # : L482930-123 Site ID : Project # : 6680-08-9635								
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	7.4	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	2.0			mV		2580	10/13/10	1
PH	8.7			su		9045D	10/12/10	1
Chromium Lead	92. 5.4	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

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XESC						Mt. Jul (615) 75 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - 1 Sample ID : DUP-2 Collected By : Michael J. Caud Collection Date : 10/05/10 00:00	Site	ID :	L482930 80-08-96					
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	16.	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	14.			mV		2580	10/13/10	1
РН	6.2			su		9045D	10/12/10	1
Chromium Lead	140 19.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	- / - / -	

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XESC						Mt. Jul: (615) 79 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D	. 62-081428	39
YOUR LAB OF CHOICE						Est. 19'	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octol	ber 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : DUP-3 Collected By : Michael J. Caud Collection Date : 10/05/10 00:00	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	48.			mV		2580	10/13/10	1
Нq	8.1			su		9045D	10/12/10	1
Chromium Lead	32. 260	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-125 (PH) - 8.1@20.3c

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XESC						Mt. Jul (615) 75 1-800-76		
L·A·B S·C·I·E·N·C·E·S						Tax I.D.	. 62-081428	9
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	oer 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : DUP-4 Collected By : Michael J. Caud Collection Date : 10/06/10 00:00	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	53.			mV		2580	10/13/10	1
Н	7.4			su		9045D	10/12/10	1
Chromium Lead	10. 11.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	- / - / -	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:06 L482930-126 (PH) - 7.4@20.2c

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ESC SIGNAL SIGNA						Mt. Jul: (615) 79 1-800-76		
						Tax I.D	. 62-081428	39
YOUR LAB OF CHOICE						Est. 19'	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORT OF ANAL	YSIS	Octob	per 22, 2010			
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : DUP-5 Collected By : Michael J. Caud Collection Date : 10/07/10 00:00	Louisville,	КY		Site	ID :	L482930 80-08-96		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	3.1	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	38.			mV		2580	10/13/10	1
рH	7.2			su		9045D	10/12/10	1
Chromium Lead	52. 16.	0.085 0.090	0.50 0.25	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:07 L482930-127 (PH) - 7.2@20.2c

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XESC						Mt. Jul (615) 79 1-800-76		
						Tax I.D.	. 62-081428	19
YOUR LAB OF CHOICE						Est. 197	70	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REP	ORT OF ANALY	YSIS	Octob	per 22, 2010			
Date Received : October 08, 20 Description : RBTC-500 VAC - L Sample ID : SB-27 0-2 FT Collected By : Michael J. Caudi Collection Date : 10/06/10 10:10	ouisville,	КY		Site	Sample # : ID : ect # : 66	L482930		
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	10/14/10	1
ORP	48.			mV		2580	10/13/10	1
рн	8.9			su		9045D	10/12/10	1
Chromium Lead	12. 5.4	0.085 0.45	0.50 1.3	mg/kg mg/kg		6010B 6010B	10/15/10 10/15/10	

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/17/10 09:51 Revised: 10/22/10 13:07 L482930-128 (PH) - 8.9@20.1c

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Attachment A List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L482930-03	WG502426	SAMP	Chromium, Hexavalent	R1424028	0
L482930-22	WG502427	SAMP	Chromium, Hexavalent	R1423868	V
L482930-40	WG502945	SAMP	Chromium	R1426379	J3J6
L482930-51	WG502952	SAMP	Chromium	R1430088	J3V
	WG502952	SAMP	Lead	R1430088	J3V
L482930-77	WG503139	SAMP	Chromium	R1429249	J3J6
	WG503139	SAMP	Lead	R1429249	V

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Attachment B Explanation of QC Qualifier Codes

Qualifier	Meaning
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
J3	The associated batch QC was outside the established quality control range for precision.
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.
0	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

- Precision The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.
- Surrogate Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L482930

October 22, 2010

		Laboratory Blank					
Analyte	Result	Units % Rec	Limit	Batch	Date Analyzed		
рН	6.40	su		WG50242	4 10/09/10 10:3		
рН	6.50	su		WG50260	8 10/12/10 09:2		
рH	5.70	su		WG50261	8 10/12/10 10:0		
Chromium,Hexavalent	< 2	mg/kg		WG50242	7 10/12/10 16:2		
Chromium,Hexavalent	< 2	mg/kg		WG50242	6 10/12/10 19:5		
Chromium,Hexavalent	< 2	mg/kg		WG50242	8 10/13/10 08:3		
pH	4.90	su		WG50261	4 10/12/10 21:0		
рН	4.90	su		WG50261	3 10/12/10 21:3		
рН	5.20	su		WG50282	0 10/12/10 14:5		
Chromium,Hexavalent	< 2	mg/kg		WG50242	9 10/13/10 14:5		
Chromium,Hexavalent	< 2	mg/kg		WG50243	0 10/13/10 21:3		
Chromium	< .5	mg/kg		WG50294	5 10/13/10 12:1		
Lead	< .25	mg/kg		WG50294	5 10/13/10 12:1		
рH	5.30	su		WG50261	2 10/13/10 23:0		
Chromium	< .5	mg/kg		WG50304	2 10/14/10 14:4		
Lead	< .25	mg/kg		WG50304	2 10/14/10 14:4		
Chromium,Hexavalent	< 2	mg/kg		WG50243	1 10/14/10 19:3		
Chromium,Hexavalent	< 2	mg/kg		WG50243	2 10/14/10 20:0		
рН	5.20	su		WG50261	1 10/14/10 17:3		
Thromium	< .5	mg/kg		WG50314	2 10/14/10 22:4		
Lead	< .25	mg/kg			2 10/14/10 22:4		
Chromium	< .5	mg/kg			7 10/15/10 11:5		
Lead * Performance of this Ana	< .25	mg/kg		WG50329	7 10/15/10 11:5		

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Tax I.D. 62-0814289

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L482930

October 22, 2010

		Labo	aboratory Blank						
Analyte	Result	Uni	ts %R	lec	Limit	Batch	Date Analy		
Chromium	< .5	mg/l	ka			WG503139	10/15/10 1		
Lead	< .25	mg/l	-			WG503139	10/15/10 1		
Chromium	< .5	mg/l	ka			WG503140	10/15/10 1		
Lead	< .25	mg/]					10/15/10 1		
Chromium	< .5	mg/]	kg			WG502941	10/15/10 1		
lead	< .25	mg/l	kg			WG502941	10/15/10 1		
hromium	< .01	mg/					10/15/10 1		
ead	< .005	mg/	1			WG503047	10/15/10 1		
hromium	< .5	mg/l	5				10/15/10 1		
ead	< .25	mg/]	kg			WG502952	10/15/10 1		
hromium,Hexavalent	< 2	mg/]	kg			WG503666	10/20/10 0		
hromium	< .5	mg/l	kg			WG504415	10/21/10 1		
]	Duplicate						
nalyte	Units	Result	Duplicate	RPD	Limit	Ref Sam	p Batc		
н	su	6.30	6.30	0	1	L482572	-01 WG50		
PH	su	7.20	7.20	0	1	L482930	-32 WG50		
RP	mV	84.0	90.0	6.90	20	L482930			
RP	mV	110.	110.	3.57	20	L482930	-02 WG50		
RP	mV	120.	120.	3.39	20	L482930			
RP	mV	150.	150.	0	20	L482930	-22 WG50		
Н	su	11.0	10.0	9.52*	1	L482930			
Н	su	6.40	6.30	1.57*	1	L482930	-12 WG50		
Н	su	6.60	6.60	0	1	L482930			
Н	su	8.60	8.50	1.17*	1	L482930	-31 WG50		
RP	mV	19.0	16.0	17.1	20	L482930			
RP	mV	100.	96.0	5.08	20	L482930	-51 WG50		
hromium,Hexavalent	mg/kg	27.0	28.0	2.90	20	L482930			
Chromium, Hexavalent	mg/kg	4.70	4.50	4.13	20	L482930	-32 WG50		
hromium,Hexavalent	mg/kg	0	0	0	20	L482930			
Chromium,Hexavalent	mq/kq	0	0	0	20	L482930	-20 WG50		

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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L·A·B SICILEINICIES

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L482930

October 22, 2010

			Duplicate				
Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Н	su	6.80	6.70	1.48*	1	L482930-115	WG502614
рH	su	9.00	8.90	1.12*	1	L482930-128	WG502614
Chromium,Hexavalent	mg/kg	14.0	14.0	2.90	20	L482930-52	WG502428
Chromium,Hexavalent	mg/kg	63.0	61.0	3.70	20	L482930-41	WG502428
рН	su	8.50	8.60	1.17*	1	L482930-100	WG502613
PH	su	5.10	5.20	1.94*	1	L482930-95	WG502613
ORP	mV	49.0	43.0	13.0	20	L482930-52	WG502799
ORP	mV	63.0	64.0	1.57	20	L482930-71	WG502799
рН	su	8.00	8.10	1.24*	1	L482930-51	WG502820
ORP	mV	9.00	10.0	10.5	20	L482930-115	WG502922
ORP	mV	45.0	48.0	6.45	20	L482930-128	WG502922
Chromium, Hexavalent	mg/kg	8.20	8.40	2.90	20	L482930-71	WG502429
Chromium,Hexavalent	mg/kg	7.10	7.00	0.995	20	L482930-61	WG502429
Chromium,Hexavalent	mg/kg	120.	120.	0.837	20	L482930-90	WG50243
Chromium,Hexavalent	mg/kg	3.30	3.10	6.25	20	L482930-100	WG502430
Chromium	mg/kg	62.0	76.0	20.8*	20	L482930-40	WG50294
Lead	mg/kg	13.0	14.0	5.13	20	L482930-40	WG50294
рН	su	8.30	8.20	1.21*	1	L482930-72	WG502612
рH	su	5.20	5.20	0	1	L482930-90	WG502612
ORP	mV	0	0	0	20	L482930-72	WG502919
ORP	mV	74.0	81.0	9.03	20	L482930-91	WG502919
ORP	mV	140.	150.	8.33	20	L482930-100	WG50292
ORP	mV	150.	150.	1.98	20	L482930-95	WG502923
Chromium	mg/kg	6.90	4.70	37.4*	20	L482406-03	WG503042
Lead	mg/kg	4.20	4.80	14.0	20	L482406-03	WG503042
ORP	mV	0	0	0	20	L482930-72	WG502919
ORP	mV	74.0	81.0	9.03	20	L482930-91	WG502919
Chromium, Hexavalent	mg/kg	17.0	15.0	13.7	20	L482930-111	WG50243
Chromium, Hexavalent * Performance of this Anal	mg/kg	26.0	24.0	9.52	20	L482930-101	WG50243

Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Quality Assurance Report Level II

L482930

October 22, 2010

			Duplicate				
Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	0	0	0	20	L482930-126	WG50243
рН	su	6.80	6.80	0	1	L482930-52	WG50261
pH	su	8.10	8.10	0	1	L482930-62	WG50261
Chromium	mg/kg	5.00	5.00	0.598	20	L482930-115	WG50314
Lead	mg/kg	5.40	4.70	12.9	20	L482930-115	WG50314
Chromium	mg/kg	82.0	70.0	15.8	20	L482930-61	WG50329
Lead	mg/kg	6.40	6.10	4.49	20	L482930-61	WG50329
Chromium	mg/kg	130.	190.	40.5*	20	L482930-77	WG50313
Lead	mg/kg	260.	280.	7.02	20	L482930-77	WG50313
Chromium	mg/kg	18.0	17.0	8.45	20	L482930-95	WG50314
Lead	mg/kg	12.0	13.0	6.35	20	L482930-95	WG50314
Chromium	mg/kg	24.0	27.0	13.9	20	L482930-20	WG50294
Lead	mg/kg	11.0	12.0	6.01	20	L482930-20	WG50294
Chromium	mg/l	0.00100	0.00170	51.9*	20	L482936-11	WG50304
Lead	mg/l	0	0	0	20	L482936-11	WG50304
Chromium	mg/kg	370.	480.	26.4*	20	L482930-51	WG50295
Lead	mg/kg	34.0	51.0	40.6*	20	L482930-51	WG50295
Chromium, Hexavalent		0	0	0	20	L484041-03	WG50366
Chromium, Hexavalent	mg/kg mg/kg	23.0	24.0	2.96	20	L484041-03 L482930-93	WG50366
Chromium	mg/kg	42.0	45.0	6.19	20	L482930-93	WG50441
	11197 X.9				20	1402930 95	<u></u>
Analyte	Units	Laborato Known V	ry Control San al Re	mple esult	% Rec	Limit	Batch
рН	su	6.92	6.80)	98.3	97.98-102.02	WG50242
ORP	mV	229	220		96.1	95.6-104.37	WG50236
ORP	mV	229	220		96.1	95.6-104.37	WG50236
Н	su	6.92	7.00)	101.	97.98-102.02	WG50260
-							
рH	su	6.92	7.00)	101.	97.98-102.02	WG50261

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L482930

October 22, 2010

		Laboratory C	Laboratory Control Sample				
Analyte	Units	Known Val	Result	% Rec	Limit	Batch	
ORP	mV	229	220.	96.1	95.6-104.37	WG50279	
Chromium,Hexavalent	mg/kg	100	63.1	63.1	50-143	WG50242	
Chromium,Hexavalent	mg/kg	100	84.3	84.3	50-143	WG50242	
Chromium,Hexavalent	mg/kg	100	77.6	77.6	50-143	WG50242	
pH	su	6.92	7.00	101.	97.98-102.02	WG50261	
pH	su	6.92	7.00	101.	97.98-102.02	WG50261	
ORP	mV	229	220.	96.1	95.6-104.37	WG50279	
pH	su	6.92	6.90	99.7	97.98-102.02	WG50282	
ORP	mV	229	220.	96.1	95.6-104.37	WG50292	
Chromium,Hexavalent	mg/kg	100	75.3	75.3	50-143	WG50242	
Chromium,Hexavalent	mg/kg	100	85.8	85.8	50-143	WG50243	
Chromium Lead	mg/kg mg/kg	168 113	164. 106.	97.6 93.8	80.4-120.2 77.3-122.1	WG50294 WG50294	
pH	su	6.92	6.90	99.7	97.98-102.02	WG50261	
DRP	mV	229	220.	96.1	95.6-104.37	WG50291	
DRP	mV	229	220.	96.1	95.6-104.37	WG50292	
Chromium Lead	mg/kg mg/kg	168 113	170. 123.	101. 109.	80.4-120.2 77.3-122.1	WG50304 WG50304	
Chromium,Hexavalent	mg/kg	100	75.3	75.3	50-143	WG50243	
Chromium,Hexavalent	mg/kg	100	87.8	87.8	50-143	WG50243	
pH * Performance of this Analyte	su	6.92	7.00	101.	97.98-102.02	WG50261	

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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A·B S.C.I.E.N.C.E.S

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L482930

October 22, 2010

		Laboratory Con	trol Sample			
Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Chromium	mg/kg	168	156.	92.9	80.4-120.2	WG50314
Lead	mg/kg	113	109.	96.5	77.3-122.1	WG50314
Chromium	mg/kg	168	164.	97.6	80.4-120.2	WG50329
Lead	mg/kg	113	107.	94.7	77.3-122.1	WG50329
Chromium	mg/kg	168	162.	96.4	80.4-120.2	WG50313
Lead	mg/kg	113	103.	91.2	77.3-122.1	WG50313
Chromium	mg/kg	168	163.	97.0	80.4-120.2	WG50314
Lead	mg/kg	113	114.	101.	77.3-122.1	WG50314
Chromium	mg/kg	168	168.	100.	80.4-120.2	WG50294
Lead	mg/kg	113	110.	97.3	77.3-122.1	WG50294
Chromium	mg/l	1.13	1.16	103.	85-115	WG50304
Lead	mg/l	1.13	1.13	100.	85-115	WG50304
Chromium	mg/kg	168	171.	102.	80.4-120.2	WG50295
Lead	mg/kg	113	115.	102.	77.3-122.1	WG50295
Chromium,Hexavalent	mg/kg	100	59.6	59.6	50-143	WG50366
Chromium	mg/kg	168	161.	95.8	80.4-120.2	WG50441

		Laboratory		pro baprioace				
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
						-		
рН	su	6.80	6.80	98.0	97.98-102.02	0	20	WG502424
ORP	mV	220.	220.	96.0	95.6-104.37	0	20	WG502368
ORP	mV	220.	220.	96.0	95.6-104.37	0	20	WG502369
Н	su	7.00	7.00	101.	97.98-102.02	0	20	WG502608
Н	su	7.00	7.00	101.	97.98-102.02	0	20	WG502618
1								
ORP	mV	220.	220.	96.0	95.6-104.37	0	20	WG502798
Chromium,Hexavalent	mg/kg	64.5	63.1	64.0	50-143	2.19	20	WG502427
Chromium, Hexavalent	mg/kg		84.3	82.0	50-143	2.28	20	WG502426

mium,Hexavalent mg/kg 82.4 84.3 82.0 50-143 2
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L482930

October 22, 2010

			/ Control Sa		icate			/	
Analyte	Units	Result	Ref	%Rec		Limit	RPD	Limit	Batch
Chromium, Hexavalent	mg/kg	78.8	77.6	79.0		50-143	1.53	20	WG5024
рН	su	7.00	7.00	101.		97.98-102.02	0	20	WG502
рH	su	7.00	7.00	101.		97.98-102.02	0	20	WG502
ORP	mV	220.	220.	96.0		95.6-104.37	0	20	WG502
рН	su	6.90	6.90	100.		97.98-102.02	0	20	WG5028
ORP	mV	220.	220.	96.0		95.6-104.37	0	20	WG502
Chromium,Hexavalent	mg/kg	76.8	75.3	77.0		50-143	1.97	20	WG502
Chromium,Hexavalent	mg/kg	86.5	85.8	86.0		50-143	0.813	20	WG502
рН	su	6.90	6.90	100.		97.98-102.02	0	20	WG502
ORP	mV	220.	220.	96.0		95.6-104.37	0	20	WG502
ORP	mV	220.	220.	96.0		95.6-104.37	0	20	WG502
Chromium,Hexavalent	mg/kg	77.8	75.3	78.0		50-143	3.27	20	WG502
Chromium,Hexavalent	mg/kg	85.0	87.8	85.0		50-143	3.24	20	WG5024
рН	su	7.00	7.00	101.		97.98-102.02	0	20	WG502
Chromium,Hexavalent	mg/kg	60.3	59.6	60.0		50-143	1.17	20	WG503
			Matrix Sp:	ike					
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit		Ref Samp	Batch
Chromium,Hexavalent	mg/kg	553.	540.	20	2.60*	50-150		L482930-22	WG502
Chromium,Hexavalent	mg/kg	21.1	2.60	20	92.5	50-150		L482930-10	WG502
Chromium,Hexavalent	mg/kg	28.4	11.0	20	87.0	50-150		L482930-51	WG502
Chromium,Hexavalent	mg/kg	32.4	20.0	20	62.0	50-150		L482930-77	WG502

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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S.C.I.E.N.C.E.S L·A·B

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

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October 22, 2010

			Matrix S	-				
Analyte	Units	MS Res	Ref Re	s TV	% Rec	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	16.7	0	20	83.5	50-150	L482930-95	WG5024
Chromium	mg/kg	113.	76.0	50	74.0*	75-125	5 L482930-40	WG5029
Lead	mg/kg	63.9	14.0	50	99.8	75-125	5 L482930-40	WG5029
Chromium	mg/kg	46.6	4.70	50	83.8	75-125	5 L482406-03	WG5030
Lead	mg/kg	44.6	4.80	50	79.6	75-125	5 L482406-03	WG5030
Chromium,Hexavalent	mg/kg	18.1	0	20	90.5	50-150	L482930-115	WG5024
Chromium,Hexavalent	mg/kg	17.9	0	20	89.5	50-150	L482930-125	WG5024
Chromium	mg/kg	57.5	5.00	50	105.	75-125	5 L482930-115	WG5031
Lead	mg/kg	59.4	4.70	50	109.	75-125	5 L482930-115	WG5031
Chromium	mg/kg	132.	70.0	50	124.	75-125	5 L482930-61	WG5032
Lead	mg/kg	46.2	6.10	50	80.2	75-125		WG5032
Chromium	mg/kg	201.	190.	50	22.0*	75-125		WG5031
Lead	mg/kg	325.	280.	50	90.0	75-125	5 L482930-77	WG5031
Chromium	mg/kg	67.3	17.0	50	101.	75-125	5 L482930-95	WG5031
Lead	mg/kg	56.8	13.0	50	87.6	75-125	5 L482930-95	WG5031
Chromium	mg/kg	77.7	27.0	50	101.	75-125	5 L482930-20	WG5029
Lead	mg/kg	59.2	12.0	50	94.4	75-125	5 L482930-20	WG5029
Chromium	mg/l	1.23	0.0017	0 1.13	109.	75-125	5 L482936-11	WG5030
Lead	mg/l	1.21	0	1.13	107.	75-125	5 L482936-11	WG5030
Chromium	mg/kg	406.	480.	50	0*	75-125	5 L482930-51	WG5029
Lead	mg/kg	84.8	51.0	50	67.6*	75-125	5 L482930-51	WG5029
Chromium,Hexavalent	mg/kg	-1.47	0	20	0*	50-150	L483743-01	WG5036
Chromium	mg/kg	83.2	45.0	50	76.4	75-125	5 L482930-93	WG5044
		Mat	rix Spike	Duplicate				
Analyte	Units	MSD	-	%Rec	Limit	RPD	Limit Ref Samp	Batch
Chromium,Hexavalent	mg/kg	550.	553.	2.00*	50-150	0.544	20 L482930-22	WG5024
Chromium,Hexavalent	mg/kg	22.5	21.1	99.5	50-150	6.42	20 L482930-10	WG5024

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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L·A·B SICIIEINICES

YOUR LAB OF CHOICE

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Quality Assurance Report Level II

L482930

October 22, 2010

		1	Matrix Spik	e Duplicate	2				
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Chromium,Hexavalent	mg/kg	28.8	28.4	89.0	50-150	1.40	20	L482930-51	WG5024
Chromium,Hexavalent	mg/kg	32.1	32.4	60.5	50-150	0.930	20	L482930-77	WG5024
Chromium,Hexavalent	mg/kg	17.1	16.7	85.5	50-150	2.37	20	L482930-95	WG5024
Chromium	mg/kg	114.	113.	76.0	75-125	0.881	20	L482930-40	WG5029
Lead	mg/kg	62.1	63.9	96.2	75-125	2.86	20	L482930-40	WG5029
Chromium	mg/kg	53.5	46.6	97.6	75-125	13.8	20	L482406-03	WG5030
Lead	mg/kg	51.3	44.6	93.0	75-125	14.0	20	L482406-03	WG5030
Chromium,Hexavalent	mg/kg	18.9	18.1	94.5	50-150	4.32	20	L482930-115	WG5024
Chromium,Hexavalent	mg/kg	16.4	17.9	82.0	50-150	8.75	20	L482930-125	WG5024
Chromium	mg/kg	51.2	57.5	92.4	75-125	11.6	20	L482930-115	WG5031
Lead	mg/kg	53.5	59.4	97.6	75-125	10.5	20	L482930-115	WG5031
Chromium	mg/kg	124.	132.	108.	75-125	6.25	20	L482930-61	WG5032
Lead	mg/kg	50.3	46.2	88.4	75-125	8.50	20	L482930-61	WG5032
Chromium	mg/kg	213.	201.	46.0*	75-125	5.80	20	L482930-77	WG5031
Lead	mg/kg	322.	325.	84.0	75-125	0.927	20	L482930-77	WG5031
Chromium	mg/kg	68.0	67.3	102.	75-125	1.03	20	L482930-95	WG5031
Lead	mg/kg	62.4	56.8	98.8	75-125	9.40	20	L482930-95	WG5031
Chromium	mg/kg	72.0	77.7	90.0	75-125	7.62	20	L482930-20	WG5029
Lead	mg/kg	60.7	59.2	97.4	75-125	2.50	20	L482930-20	WG5029
Chromium	mg/l	1.19	1.23	105.	75-125	3.31	20	L482936-11	WG5030
Lead	mg/l	1.19	1.21	105.	75-125	1.67	20	L482936-11	WG5030
Chromium	mg/kg	447.	406.	0*	75-125	9.61	20	L482930-51	WG5029
Lead	mg/kg	88.6	84.8	75.2	75-125	4.38	20	L482930-51	WG5029
Chromium,Hexavalent	mg/kg	-0.15	6 -1.47	0*	50-150	-162.*	20	L483743-01	WG5036
Chromium	mg/kg	85.6	83.2	81.2	75-125	2.84	20	L482930-93	WG5044

Batch number /Run number / Sample number cross reference

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Quality Assurance Report Level II

L482930

October 22, 2010

WG502424: R1420768: L482930-32 33 34 35 36 37 38 39 40 41 WG502368: R1422548: L482930-01 02 03 04 05 06 07 08 09 10 11 WG502369: R1422552: L482930-12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 WG502608: R1423190: L482930-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 WG502618: R1423209: L482930-21 22 23 24 25 26 27 28 29 30 31 WG502798: R1423212: L482930-32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 WG502427: R1423868: L482930-21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 WG502426: R1424028: L482930-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 WG502614: R1424490: L482930-111 112 113 114 115 116 117 118 123 124 125 126 127 128 WG502428: R1424491: L482930-41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 WG502613: R1424508: L482930-91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 WG502799: R1424549: L482930-52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 WG502820: R1424553: L482930-42 43 44 45 46 47 48 49 50 51 WG502922: R1425172: L482930-112 113 114 115 116 117 118 123 124 125 126 127 128 WG502429: R1425490: L482930-61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 WG502430: R1426009: L482930-81 82 83 84 85 86 87 88 89 90 91 92 94 95 96 97 98 99 100 WG502945: R1426379: L482930-21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 WG502612: R1426408: L482930-72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 WG502919: R1426448: L482930-72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 WG502921: R1427268: L482930-92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 WG503042: R1427569 R1427570: L482930-63 64 65 66 67 68 62 WG502431: R1427948: L482930-101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 123 124 WG502432: R1427968: L482930-125 126 127 128 WG502611: R1428268: L482930-52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 WG503142: R1429008 R1429009: L482930-102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 123 124 101 WG503297: R1429209 R1429210: L482930-60 61 125 127 128 126 WG503139: R1429249: L482930-69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 WG503140: R1429310 R1429311: L482930-89 90 91 92 93 94 95 96 97 98 99 100 WG503047: R1430068: L482930-119 120 121 122 WG502941: R1430070 R1430071: L482930-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 WG502952: R1430088 R1430089: L482930-41 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 42 WG503666: R1435529: L482930-93 WG504415: R1439509: L482930-93

 * * Calculations are performed prior to rounding of reported values $% \left({\left[{{{\rm{Calculations are performed prior to rounding of reported values }} \right]} \right)$

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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YOUR LAB OF CHOICE MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

Quality Assurance Report Level II

L482930

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

> Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier. 12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

October 22, 2010

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		Billing information:						Analysis/Container/Preservative					~		ain of Custody
MACTEC - Louisvi	lle, KY							1					1	F103	Je of
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13425 Eastpoint Center	Dr Ste 1	22 I		ewood, Ste	300						l				
Louisville,KY 40223	D1. 50. 1.			0.0000, 010					. ⁻					The second second	
Louisvine, KI 40223			Alpharetta	a,GA 30009)		1				ļ	i	/		
								1	50				/		
Report to:			Email;				-		Pre			Ĭ			I-E-N-C-E-S
Mr. Scott Kelly	in Ille		ts	kelly@mact					No						xanon Road , TN 37122
Project Law Description: RBTC-500 VAC -Leite	initelite, KY		City/Sta Collecte	ed Louist	ille, k	y			8ozClr-NoPres						0) 767-5859 C) 769-5859
Phone: (502) 253-2500	Client Project #		Lab l	Project #		·		2				/			5) 758-5858 5) 758-5859
FAX: (502) 253-2501	6680-08-96	35	MA	CTECLOU	-RBTC50	0	Pre	N N				/			,
Collegist by (pint): Michael J. Caudill	Site/Facility ID#		P 0.#	2010136	38 9/30	-	CR6 250mlHDPE-NoPres	Pb, Cr 500mIHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE		1				
Collucted by (signature):		(Lab MUST (ilts Needed		1 HC	<u>A</u>	¥+					Acctnum MACTE	CLOU
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Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Cntrs	× ×	ية.	b,C	N N	\mathcal{V}				
Sol (0-2)														····	Sample # (lab only)
	ļ Ģ	SS	0-2	10/4/10	1008	1	X	X	X	/				[4	82930-01
$25^{-1}(\alpha^{-2})$	·	ss	2-5	i	1012	- 1			X						02
53-1 (5-10)	└─┴──	SS	5-10		1015	I			X	/					03
56-210-2	├ ── │ ──	SS	0-2	_	1035	l			X	[]					04
50-2(2-5)	L	SS	2-5		1036	1			X						05
52 (574)		SS	5-10		10 D	1			X						06
B-3 (0-2)		SS	0-2		1053	1			X	1					07
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SB-3 (3-12)		SS	5-10	V	108	1	¥.		X	l^{-+}					09
"Matrix: SS - Soji GW - Groundwater WW	WasteWater D	W - Drinking W	later OT - Othe	er			<u> </u>			<u> </u>		pH		Temp	0
Remarks: Samples to be HELD for 9	0 DAYS after	analysis.										T 1.		·	
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Mar Marx Mallel	Date:	10 550		ved by: (Signati					"Sa	amples r	eturne	d via:		Condition:	(lab use only)
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			-						-						

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MACTEC - Louisvil 13425 Eastpoint Center I Louisville,KY 40223		22	MACTEC AP Processing 1105 Lakewood, Ste. 300 Alpharetta,GA 30009						es						Pa E	$\frac{SC}{E - N \cdot C \cdot E \cdot S}$
Report to: Mr. Scott Kelly Project Description: RBTC-500 VAC - Leitcl Phone: (502) 253-2500 FAX: (502) 253-2501 Collected by (prof.):	Client Project # 6680-08-96	35	City/State Collected Lab Pre	Im oject #	ou-RBTC5	7 10	250mlHDPE-NoPres	-HNO3	CHIVE 8ozClr-NoPres	/					12065 Leban Mt Juliet, 17 Phone: (800) Phone: (615) Fax: (615) (ion Road ¥ 37122 767-5859 758-5858
Collecter by (signature) Collecter by (signature) MuCharly Immediately Packed on Ice N Y Sample ID	Same Day . Next Day Two Day	Lab MUST Be	Notified) 200% 100% 50%	Date I Email?	13638 9/30 Results Needed No XYes NoYes e Time	Yes No. Yes of Cntrs		Pb, Cr 500mlHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE	Q	- Trat					470' P334302 O MA K Standard
\$-4(0-2) =2-4(2-5)		SS SS	0-2	ett	10 110	1 I	X	X	X X						Remarks/Contaminant	Sample # (lab only) 82-930-10 11
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8-5 (5-12) 8-6 (0-2)		SS SS	5-10		136	1 I 1			<u>л</u> Х Х	1						
SB-6 (2-5) SB-6 (5-10)	¥	SSe	5-10	X	1300	1	V	Y	X X	<u> </u>						17
Matrix SS Soil GW - Groundwater WW - Remarks: Samples to be HELD for 90			er OT - Other		_							pł. Flo	۲ <u> </u>		Temp Other	
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		8	illing informat	tion.				Analys	sis/Cor	taine	r/Pres	ervatiy	e .	Chain of Custody
MACTEC - Louisvi	lle, KY		MACTEC											Page of
13425 Eastpoint Center	Dr. Ste. 1	22	AP Proce 1105 Lak	essing ewood, Ste	e. 300									
Louisville,KY 40223			Alpharett	a,GA 3000	9		·.		es					XESC
Report to: Mr. Scott Kelly			Email: ts	kelly@mac	tec.com		•		NoPr					L-A-B S-C-I-E-N-C-E-S 12065 Lebanon Road Mt. Juliet, TN 37122
Project Description: RBTC-500 VAC - Leite	hffeld, KY	 "	City/Sta Collect	ate	ille 1				8ozClr-NoPres					Phone: (800) 767-5859
Phone: (502) 253-2500 FAX: (502) 253-2501	Client Project #			Project #	J-RBTC50	}	res	NO3						Phone: (615) 758-5858 Fax: (615) 758-5859
Collected by (frint): J. Caudill	Site/Facility ID#		P.0.1	#: 2010130			-NoF	500mlHDPE-HNO3	RCHI	1		Į.		
Willer Kaulth Same Day			Date Results Needed					IHD	SS+A					Acctnum MACTECLOU
Immediately Packed on Ice N Y	Two Day	· · · · · · · · · · · · · · · · · · ·	50%	Email? FAX?	No Yes	No. of	CR6 250mlHDPE-NoPres	Cr 500n	C6,CR6SS+ARCHIVE	\int	N			Template/Prelogin T67470/ P334302 Cooler #: 00000000000000000000000000000000000
Sample ID 4-6	Comp/Grab	Matrix*	Depth	Date	Time	- Cntrs	CR6	Pb, (₽₽,0					Remarks/Contaminant Sample # (lab only)
Spall ()	<u>C</u>	SS	4-6	VOI leff	7 1147	1	Х	X	X	<u>N</u>	V			<u> </u>
$-\frac{1}{2}\left(\frac{a}{2}\right)$	╞╶╉──	SS	0-3	-40/7/10	0833	11	1		X	$ \rightarrow$				88-92-
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		Billing information:		nalysis/	Container/Pre	servative		Chain of Custody
MACTEC - Louisvi 13425 Eastpoint Center		MACTEC AP Processing 1105 Lakewood, Ste. 300						Page of
Louisville,KY 40223		Alpharetta,GA 30009			Lies			LAB SCHEINCHES
Report to: Mr. Scott Kelly		Emaik tskelly@mactec.com						12065 Lébanon Road Mt. Juliet, TN 37122
Project Description: RBTC-500 VAC - Leitel Phone: (502) 253-2500	Client Project #:	Collected au'suille, Ky Lab Project #	·		802CIT-NOPTES			Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859
FAX: (502) 253-2500 Collecter (sign): 0: 4	6680-08-9635	MACTECLOU-RBTC500	NoPres	ONH-3				
Collect by (signature)	Rush? Lab M Same Day	201013638 9/30 UST Be Notified) Date Results Needed	studies CR6 250mlHDPE-NoPres	Cr 500mlHDPE-HNO3	PD,UQ,UK0557AKUHIVE			Accinum MACTECLOU ^(lab use only) Template/Prelogin T67470' P334302 Cooler #: 0 30 (0 AMO Shipped Via: FedEX Standard
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\$3-2/2-5)	SS SS		$\frac{1}{1}$	Ψ^{Λ}				100 -106
513-32(5-10)	SS SS	5-10 1505	$\frac{1}{1}$	V x				101 -107_ 102 -708
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Remarks: Samples to be HELD for 90	DAYS after analy:	sis.	_			Flow		Other
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Report to: Mr. Scott Kelly			imail: tşk	elly@ma	actec.com		-		8ozClr-NoPres				12065 Leba Mt. Juliet, 1		E. 2
roject rescription: RBTC-500 VAC - Leite	frield, KY	-	City/Stat Collecter	<u>ل</u> ار ا	ille /	r IA			ozClr-				Phone: (800)	767-5859	
hone: (502) 253-2500 AX: (502) 253-2501	Client Project #		1	roject # CTECL(OU-RBTC50	10	Pres	IN03	IIVE 8(/	Phone: (615) Fax: (615)	758-5859	
ollected Worint hay Tlaudi	Site/Facility ID#		P.O.#:	20101	3638 9/30		E-No	PE-F	RCF						
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_SB-34 (5-10)		SS	5-10		HES	1		\mathbf{V}	X					110	44
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Matrix: S-Soil GW - Groundwater WW	- WasteWater D	W - Drinking Wa	iter OT - Othe	ſ	_		ł		,			рН	 Temp		ंप्रो
emarks: Samples to be HELD for 9	0 DAYS after	analysis.									т	-	Other		

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1 Mau - Lawa	Il into	Time:	Received by (Signature)	Samples return		Condition:	(lab use only)
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Relinquished by (Signature)	Date:	Time	Received for lab by: (Signature)	Date:	Time: 0900	pH Checked:	NCF:

		Bit	lling informati	on:			A	naiys	is/Cont	ainer/P	reserva	tive	 Chain of Custody
MACTEC - Louisv 13425 Eastpoint Center Louisville,KY 40223		22		ssing ewood, Ste a,GA 3000					S				Page_of_
Report to: Mr. Scott Kelly Project		E		celly@mac	tec.com				8ozClr-NoPres				L+A+B S+C+1+E+N+C+E+S 12065 Lebanon Road Mt. Juliet, TN 37122
Description: RBTC-500 VAC - Leit Phone: (502) 253-2500 FAX: (502) 253-2501 Collected & (pgint) (pgint)	Client Project / 6680-08-96	i35		(4 <i>Toject #</i> CTECLOI	1/1 <i>2_16</i> U-RBTC50	y 10	oPres	HNO3					Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859
Collected by signature: mmediately Packed on Ice N Y	Rush? Same Day Next Day.	(Lab MUST Be	200% . 100% 50%	201013 Date Res	638 9/30 uits Needed No X_Yes No _Yes	No. of	CR6 250mlHDPE-NoPres	Pb, Cr 500mlHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE				Acctnum MACTECLO (lab use only) Template/Prelogin T67470/ P334302 Cooler #: 9 (30 (0 W) Shipped Via: FedEX Standard
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SB-35(12-20MS) SB-36(0-2)		SS (020	philo	10 ORC	1			X X	1-			 → 122 → 123
EB-2-58-36(2-5) EB-2-58-3(2570)		-GW99 -GW95	2-5 570		0985 1000	<u>L2-</u> <u>-2-</u>	X	¥	×/				117 +25 118 +25
Metrix: SS - 80il GW - Groundwater WW Remarks: Samples to be HELD for			er OT - Othe	क अ	1-			_	· 7			рН	 Temp Jan
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Bethewshed by Signature Caulily	Date 1910	Time		Samples returns		Condition:	(lab use only)
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MACTEC Lasta		Billing information:	F A	nalys	sis/Co	tainer/Pr	reservative	Chain of Custody
MACTEC - Louisvi 13425 Eastpoint Center Louisville,KY 40223		MACTEC AP Processing 1105 Lakewood, Ste. 300 Alpharetta,GA 30009		-				Page_of_
Mr. Scott Kelly Project Description: RBTC-500 VAC - Leite	Hield, KY	Email tskelly@mactec.com			CI-Kel		h l	12065 Lebanon Road Mt. Juliet, TN 37122 Phone: (800) 267-5859
Phone: (502) 253-2500 AX: (502) 253-2501 Collected by (crint): (2010)	Client Project #: 6680-08-9635 Site/Facility ID#:	Lab Project # MACTECLOU-RBTC500	- Sourt	IN03	IIVE 802		Maa	Phone: (615) 758-5858 Fax: (615) 758-5859
Collected by (signature): The character of the control of the con	Rush? (Lab MUST Same Day		CR6 250mHIDPE NoPres	Pb, Cr 500mHIDPE-IINO3	Pb,C6,CR6SS+ARCHIVE 80zCh-NoPres	mun	K-CMI	Acctnum MACTECLOU ^(lab use orily) Template/Prelogin T67470/P334302 Cooler #: 9300 WM
Sample ID	Comp/Grab Matrix*	Depth Date Time	I	Pb, C	₽ ₽		16	Shipped Via: FedEX'Standard Remarks/Contaminant Sample # (lab only)
EB-4 FB-2 EB-5-EB-3	G- GW GW	10/4/10/16/45 2	X X	X X	-	X		- 120 +20-128
BB45 EB-Y	GW GW	0/0/10/10/20 2	XX	XXX				-12/ +29
==== Dep-1 ==== Dep-2		5 /10/4/0	X X	k k				-122 -130
- Dup-3 Dup-4	C W	10/5/10 - TI 10/6/10 - I	x	x				-124 132 -125 133 -126 134
Matrix SS-Soil W Sroundwater WW-	WasteWater DW - Drinking W	/ater OT - Other		_		Y I		-127 135
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	Billing information:	Analysis	/Container/Prese	rvative	Chain of Custody
MACTEC - Louisville, KY 13425 Eastboint Center Dr. Ste. Louisville, KY 40223	AP Processing		63 8		Page_of_
Report to: Mr. Scott Kelly	Emait tskelly@mactec.com	-	Hop.		12065 Lebanon Road Mt. Juliet, TN 37122
reject Description: RBTC-500 VAC - Leitchfiëld, KY			800 CI		Phone: (800) 767-3839 Phone: (615) 758-5858 Fax: (615) 758-5859
Phone: (502) 253-2500 6680-08- AX: (502) 253-2501 6680-08- Sollegted by (print): ////////////////////////////////////	9635 MACTECLOU-RBTC500		THEY CO		6482 930
The child Calland Same L	P.0.# 201013638 9/30 201013638 9/30 Date Results Needed 200% 100%	a CR6250mHB9RF-Nepres- -Pb, Gr 500mHBPE-HNO3	MCROSSARCITVES		Accinum MACTEGLO
racked on Ice N Two Da	y	а 	95.04655 hramues e25-15	Š	Template/Prelogin T67470 P334302 Cooler# Shipped Via: FedEX Standard
Sample ID Comp/Grat	Matrix* Depth Date Time	- 1.422 Bit - 1.42	感の変		Remarks/Contaminant Sample # (lab only)
-BB-3-FB-1 G BB-4-FR-2 1	GW / 10/4/10/643 2 GW / 10/5/10/500 2	Contraction of the second			Her - Chromium analysis 120
EB-5-EB-3	GW / 0/5/10/10/5 2	X X			on EB-1 through DEB-Y 12
BB-67- C	GW / 0/-110 //20 2 - GW 55 / 10/4/10 - 2				Please add soil sample 1
-EB=8-71/2-2	-GW / 0/5/10 7				SB-2/ 0-2) and 123 malize for Chromium,
-EB-9 D. p-3	·GW / 10/2/10) - 2	<u>∼ X X </u>			Hox-Chronican milled
Nup=5	V / White - 1			╉╔╢┾	(mgc) 126 127
> SB=27 (0=3) Matrix: SS - Soll (GW-Groundwater WW-WasteWate	SS 0-2 10/6/10 1010 1 DW - Drinking Water OT - Other	[2007/00/07]	XX	X	Temp 12.8
emarks: Samples to be HELD for 90 DAYS a				Flow	Other
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Relinquished by (Signature)	ate Time: Received by (Signature)		Samples return	ed via: UVPS ourier <u>D</u>	Condition (lab use only)
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Relinguished by? (Signature)	ate: Time: Réceived for lab.by: (Signature)	CARLER HAR DE LA	Date	Contract Total of	pH Checked

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ENVIRONMENTAL SCIENCE CORP.

SAMPLE NON-CONFORMANCE FORM

Evaluated by: <u></u>	- levallace		
Client: <u>h</u>	ACTECLOY		-
Non-Conformanc	e (check applicable items)		
Imp Cha	in of Custody is missing toper container type in of custody is incomplete meter(s) past holding time		Login Clarification Needed Imptoper preservation Container lid not intact
	ten container(s) see below		Improper temperature Broken container: sufficient sample olume remains for analysis requested
	Insufficient preking	g material aro	und container
	Insufficient packing		
	Sample was frozen	by catrier (Fe	dEx / UPS / Courier)
\bigcirc			
Comments: <u>Keer</u>	red CR10 put of	<u>Hoid for</u>	1 Samples EB1, 23,4
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lient informed by c	all / mail / lax / voice mai	l date:	0[8] 18_time: <u>1[:15</u>

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Jonah Huckabay

From: Leslie Newton Sent: Friday, October 08, 2010 9:05 AM

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To: Login

Subject: MACTECLOU - Incoming samples - lots of soil samples for metals

Please watch for these samples today. Thanks, Leslie

From: Caudill, Michael [mailto:MJCAUDILL@mactec.com] Sent: Friday, October 08, 2010 8:05 AM To: Leslie Newton Cc: Dunn, Alison Subject: RE: Incoming samples - lots of soil samples for metals

HI Leslie,

Just FYI, there were a total of 5 coolers shipped yesterday evening with 136 samples total (132 soil and 4 water). I accidentally left one soil sample off the COC, SB-27 (0-2) collected on 10/6/2010. Also, I ran out of space on the COCs due to the pre-printed EB samples (we only had so collect 4) and analyses. I crossed out the EB's I did not need and hand entered the remaining soil samples I had and the Chromium, Hex Chromium and Lead analyses. Hope that's ok. Please feel free to call me if you have questions.

Thanks, M.

From: Leslie Newton [mailto:LNewton@esclabsciences.com]
Sent: Thursday, October 07, 2010 11:03 AM
To: Dunn, Alison
Cc: Kelly, Scott; Caudill, Michael
Subject: RE: Incoming samples - lots of soil samples for metals

I have alerted our Login, Metals and Sample Storage departments that the samples are coming in and will need special handling (achieving). I will watch these and prepare a list of any samples over the limit.

Thanks, Leslie

Leslie Newton Sr. Technical Service Representative ESC Lab Sciences 12065 Lebanon Rd. Mt. Juliet, TN 37122 615-773-9670 http://www.myesc.esclabsciences.com

From: Dunn, Alison [mailto:ALDUNN@mactec.com]
Sent: Thursday, October 07, 2010 9:32 AM
To: Leslie Newton
Cc: Kelly, Scott; Caudill, Michael
Subject: Incoming samples - lots of soil samples for metals

Hi Leslie,

Mike Caudill is going to ship out this evening all the soil samples collected from the Bosch site in Louisville this week (140+, in 5 or 6 coolers), for delivery tomorrow. They will all need to be analyzed for lead, chromium and hex chromium, regular TAT. These are the samples we talked about maintaining in archive for 90 days.

Some of the samples will need to have TCLP metals run on them. The work plan says that any samples with lead over 150 mg/kg, or chromium over 120 mg/kg, will have TCLP extracts run for lead and chromium. What I'd like is to get a list from you, once the total metals are run, of the samples that exceed these limits. If the list is really long (hopefully not), we may decide not to do the TCLP on all of the exceeding samples, but just a representative number.

We are still thinking of running TCLP metals on some concrete samples, but won't make that decision until next week.

Please let me know if you have questions, thanks! Alison

Alison L. Dunn, P.G. | Principal Hydrogeologist MACTEC Engineering and Consulting, Inc. 2456 Fortune Drive, Suite 100, Lexington, KY 40509 Office (859) 255-3308|Direct Dial (859) 566-3729| Mobile (859) 421-5921 | Fax (859) 254-2327

E-mail aldunn@mactec.com | Web www.mactec.com

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Notice: This communication and any attached files may contain privileged or other confidential information. If you have received this in error, please contact the sender immediately via reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.

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Report to:]	res	Ì	:		1	L-A-B S-C-I-E-N-C-E-S
Mr. Scott Kelly		Email:	elly@mactec.com				Po l					12065 Lebanon Road
Project Car Description: RBTC-500 VAC - Leite	hfield, KY	City/Stat Collected		Ky			8ozClr-NoPres		ĺ			Mt. Juliet, TN 37122 Phone: (800) 767-5859
Phone: (502) 253-2500	Client Project #:	Lab P	roject #	<u> </u>		6				X		Phone: (615) 758-5858
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Mchael and	Site/Facility ID#:	P.O.#:	201013638 9/30		CR6 250mlHDPE-NoPres	Cr 500mlHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE			/		
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Report to: Project Description: RBTC-500 VACLeitch	/St//E field , KY		:mail;	elly@mact					8ozClr-NoPres				/		L: A: B S: C: I: 12065 Leban Mt Juliet TM Phone: (800) 7 Phone: (615) 7	137122 167-5859	s
Phone: (502) 253-2500 AX: (502) 253-2501 Collegied by (crint): Collegied by (signature)		Lab MUST B	P.O.#; e Notified)	2010136	-RBTC50(38 9/30 lts Needed)	DPE-NoPres	Cr 500mlHDPE-HNO3					/	1	Fax: (615) 7	58-5859	e only)
Multicul Cault Immediately Packed on Ice N _ Y Sample ID	Next Day Two Day	Matrix*		Email?1 FAX?1 Date	No X Yes No Yes Time	No. of Cntrs	CR6 250mIHDPE-NoPres	Pb, Cr 500ml)	Pb,C6,CR6SS+ARCHIVE	(×				Template/Prelogin T67 Cooler #: (1) (3) Shipped Via: FedEX	470/ P33 10 A Standar	1302 MG rd
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37-10(0-3)		SS	02		1435	1			X								30
St-10 (2-5)		SS	25		1440	1			X								31
55-10 (5-10)		SS	5.70		MR	1			X	[32
SK-10 (10-20)	_ [SS	020		19 <u>50</u>	1			X	\square							33
Stall (p-ot)		SS	0-2		1515	1			X						time = 1513 por 1	abe/	34
56-11 62-52		SS	2-5		1515	1	1		X	\bot					(jui)		35
56-11(570)	Y	SS	540		1520	1	Ĩ	1	X								36
*Mather SS - Soil GW - Groundwater WW -	WasteWater Di	N - Drinking Wa	ater OT - Other	- 	z –							pH	I		Temp		
Remarks: Samples to be HELD for 90	DAYS after	analysis.										Flo	w		Other		
		N	all and)			-		4	२८६	55	40 x	25	75	G		
Reliquished by: (Signature) Relinquished by: (Signature)	Date/ /0/1/ Date:	10 time: Time: Time:		ed by: (Signat	-12				Sa Dar Te	Fed8		ed via: ourier Bottl		JPS ceived	Condition:	(lab use d	_
Relinquished by (Signature)	Date:	Time:		for lab by: (S	ignature) Wale	· · · ·			D:	<u>tmb</u> 5/8/	10	Time	141	5 10	COC Seal Intact; pH Checked:		<u> </u>

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			Billing information			_	Ţ/	Analys	sis/Co	ntaine	r/Pres	<u>erv</u> ati	ve		Chain of Custody
MACTEC - Louisvi 13425 Eastpoint Center		22	MACTEC AP Proces 1105 Lake		300			-					.	/	Page of
Louisville,KY 40223			Alpharetta						8	:			/	V	X ESC
Report to: Mr. Scott Kelly			Email: tsk	elly@mact					8ozClr-NoPres				\bigvee		L-A-B S-G-I-E-N-C-E-S 12065 Lebanon Road
Project Description: RBTC-500 VAC Leiter	rfield, KY	• • • • • · · · ·	Pile Cast						zClr-)			/			Mt Juliet, TN 37122 Phone: (800) 767-5859
Phone: (502) 253-2500 FAX: (502) 253-2501	Client Project # 6680-08-96.		Lab Pi	roject # CTECLOU	<u> </u>	1	Pres	NO3							Phone: (615) 758-5858 Fax: (615) 758-5859
Collected of Control (J. Caudily	Site/Facility ID#		P.O.#:	2010136			NO.	PE-H	RCH		/	1			
Collected by (signature): MUCLAUCAUCIA Immediately Packed on Ice N _ Y	Same Day . Next Day Two Day	Lab MUST E		Date Resu	Its Needed	No. of	CR6 250mlHDPE-NoPres	Pb, Cr 500mlHDPE-HNO3	%,CR6SS+ARCHIVE						Accinum MACTECLOU ^(lab use only) Template/Prelogin T67470/ P334302 Cooler #: 930 (0 003) Shipped Via: FedEX Standard
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Cntrs	CR6	Pb, (Pb,C6,	Y	A .				
\$P. R. (2-2)	2	SS	0-2	10 ALS	1550	1	X	X	X	-+					Remarks/Contaminant Sample # (lab only)
Charles -	- [SS	2-5		1555	1			X						
B-B(0-2)	<u> </u>		570	╞╌╪─	1600			-/	X]	
8-13 (2-5)	-	ss	125		122		-		X X	+					40
SB-13(5-LU)		SS	5-10	+ + '	548			+	A X	+	<u>.</u>				Y/
8-14 (0-2)		SS	02		Kool _	I	-1-1	┨┦	$\frac{\mathbf{x}}{\mathbf{x}}$	$\left - \right $					42
55-14(2-5)		SS	2-5		1615	1	1/		X					-	<u>43</u>
-25-44,5-10)	¥	SS	5-15		1620	1	V	Y	X						<u>44</u>
Maurix: SS - Soil GW - Groundwater WW -	WasteWater DV	V - Drinking Wa	ater OT - Other	¥					•						<u>_</u>
Remarks: Samples to be HELD for 90	DAYS after	analysis.		_								pН			Temp
		-					-					Flo	w		Other
Reinfusied of isignature Must	Date	Time	Receive	ed by: (Signatu	-e)								-	-5	Condition: (lab use only)
Relinquished by: (Signature)	Date:	10 D	Receive	d by: (Signatur	¢) —				Ter		×□Co		es Reci	ed:	
Relinquished by (Signature)	Date:	Time:	Received	for lab by: (Sig	nature)				Da			Time	<u>'40</u>		COC Seal Intact: Y_N_NA
	!		Kem	~ W 000	en				to	[2]/	Ô	0	900)	

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MACTECIA		Billing information:		Analys	sis/Cor	tainer/f	Preservat	iv <u>e</u>		Chain of Custody
MACTEC - Louisvil 13425 Eastpoint Center Louisville,KY 40223		MACTEC AP Processing 1105 Lakewood, Ste. 300 Alpharetta,GA 30009								
Report to: Mr. Scott Kelly Project		Email: tskelly@mactec.com			8ozClr-NoPres					LEARB SECTION COLORS 12065 Lebanon Road ML Juliet, TN 37122
Description: RBTC-500 VAC - Leitel Phone: (502) 253-2500 FAX: (502) 253-2501 Collected by (print): (110) (110) (110)	Client Project #: 6680-08-9635 Site/Facility ID#:	Lab Project # MACTECLOU-RBTC500	loPres	HNO3				Y		Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859
Collected by (signature)	Rush? (Lab MUST Same Day Next Day Two Day Three Day	201013638 9/30 Be Notified) Date Results Needed	a c	Cr 500mlHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE					Acctnum MACTECLO (ab use only) Template/Prelogin T674/70/ P334302 Cooler #: 930/70 MM
Sample ID SB-15(0-2), SD-15(2-4)	Comp/Grab Matrix* C SS I SS	Depth Date Time Cn	CR6 su	Pb,	X	Ì				Shipped Via: FedEX Standard Remarks/Contaminant Sample # (lab only)
5-15(5-10) 5-15(10-20) 5-16(10-20)		5-10 0855 1 10-20 0905 1			X X X X			 		47 48 49
52-16 (2-5) 52-16 (5-10) 53-16 (10-20)	SS SS / SS	D-5 095 1 5-10 000 1			X X X X					50 51 52
Matrix SS Soil GW - Groundwater WW - Remarks: Samples to be HELD for 90	WasteWater DW - Drinking N	2-5 0915 1 Nater OT - Other	I	∕₩	$\frac{\overline{\mathbf{x}}}{\mathbf{x}}$		pl	-1		53 51 -54 Temp
A "L			-				Flo			Other
Relinquished by: (Signature)	Date: Time	Received by (Signature)		<u>-</u>	Ten	FedEx				Condition: (lab use only) COC Seal Intact: Y_N_YA
	Date: Time	Received for lab by: (Signature)			Dat		Tim)	pH Checked: NCF:

· -		Billing in	formation:					nalysi	s/Con	tainer/I	Preser	vative	Э		Chain of Custody
MACTEC - Louisvil 13425 Eastpoint Center Louisville,KY 40223		MAC AP P 1105	TEC Process Lakew						SS						Page_of_
Report to: Mr. Scott Kelly	······································	Emait		lly@mact					8ozClr-NoPres				/	Į	L · A · B · S · C · I · E · N · C · E · S 12065 Lebanon Road Mt. Juliet, TN 37122
Project Description: RBTC-500 VAC - Leitel	ifield; KY		City/State Collected	laisi	ille, K	y			ozCl						Phone: (800) 767-5859 Phone: (615) 758-5858
Phone: (502) 253-2500 FAX: (502) 253-2501	Client Project #: 6680-08-9635		Lab Pro MAC		-RBTC50	9 0	Pres	IN03					/		Fax: (615) 758-5859
Collected by (pphi): Collected by (signifure): Collected by (signifure):	Site/Facility ID# Rush? (Lab M Same Day Next Day Two Day Three Day		% % %	2010136 Date Resu Email?	ults Needed	No. of	6 250mlHDPE-NoPres	Cr 500mlHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE						Acctnum MACTECLOU ^[jab use only] Template/Prelogin T67470/ P334302 Cooler #: 9/30/0 MS Shipped Via: FedEX Standard
Sample ID	Comp/Grab Ma	ltrix* De	epth	Date	Time	Cntrs	CR6	, ^b	Pb,					•	Remarks/Contaminant Sample # (lab only)
55-162-5MD)			3	1000	OIL	1	X	<u>, X</u>	X .		. <u>.</u>				6482930-555
56-10(0-2)		Y(2		0190 ACE				X X						54 56
52-715-10		QA	-10		ACT D	1	┝╌┫╴┤		$\frac{\mathbf{A}}{\mathbf{X}}$	+					<u>55 57</u>
SZ-1(D-20)	ss	p	20		0155		╞╴┠╼┤	┦┤	X	11				<u> </u>	57 59
SR-18 (0-2)	SS		2		1015	1			Χ	1					58-60-
37-18(2-3)	SS		-3		1000	<u> </u>		1/	X						59-61-
53-18 (5-10)			-10 -20		1023	1	Y	\mathbf{H}	X X	 +	-+				60 62-
State au	· · · ·	¥		¥	NN	1		V	<u> </u>	r		1			10 10 10 10 10 10 10 10 10 10 10 10 10 1
Matrix: S-Sol GW-Groundwater WW			T - Other_									рH	l		Temp
Remark Samples to be HELD for 9	0 DAYS after analy	sis.										Flo	w	-	Other

Religioushed by (Signature)	Date:	Received by: (Signature)	Samples returned via: UPS	Condition: (lab use only)	
Relinquished by (Signatur	Date: Tim		Temp: Bottles Received:		
Relinguished by: (Signature)	Date: Tim	Received for lab by: (Signature)	<u> </u>	COC Seal Intact: Y N N	{
		Kenn lexplan	10/8/10 0900		

MACTECIA		Billi	ng informati	on:		-	F-/	Analys	sis/Con	tainer	/Prese	rvativ	<u> </u>	Chain of Custody
MACTEC - Louisv 13425 Eastpoint Cente		A	IACTEC P Proces 105 Lake	ssing wood, Ste	e. 300									Page of
Louisville,KY 40223		A	lpharetta	,GA 3000	9				es					XESC
Report to: Mr. Scott Kelly		Em	iail: tsk	elly@mac	tec.com		-		NoPr					L-A-B S-C-I-E-N-C-E-S 12065 Lebanon Road
Project Description: RBTC-500 VAC - Lci	tchfield, KY		City/Stat	<u> </u>			ĺ		8ozClr-NoPres					Mt. Juliet, TN 37122 Phone: (800) 767-5859
Phone: (502) 253-2500 AX: (502) 253-2501	Client Project #.		Lab P	roject #	J-RBTC50	7 0	Pres	NO3				/		Phone: (615) 758-5858 Fax: (615) 758-5859
Collected by (print) Collected by (signature)	Rush? (Lab MUST Be	P.O.#	201013	5 3 8 <u>9/</u> 30		CR6 250mlHDPE-NoPres	Cr 500mlHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE					
Collected by (Stonthure) MUCHALL CAULIA Immediately	Same Day .		200%	Date Res	ults Needed		IdHid	IHIm	eSS+,	6	\mathbb{N}			Acctnum MACTECLOU Template/Prelogin T67470/ P334392
Packed on Ice N Y				· -	No Yes	No. of	5 250m	Cr 500	C6,CR	Ø	X			Cooler #: 913010 MG. Shipped Via: FedEX Standard
Sample ID	Comp/Grab	Mətrix*		Date	Time	Cntrs	CR	Pb,	Pb,(μ.			Remarks/Contaminant Sample # (lab only)
Strad	-C	_ <u>ss</u>	<u>45/12</u>	tidsli	0 150	I	X	X	X					L182930-64-62
- 75-112-52	╶┼┈╉╴┈┥	SS	2-5		1033	1			X					63 45
		<u>SS</u>	5-10		1100	- <u> </u>			X					64 -65
- 36-11(10-20)		<u>SS</u>	0-20	┼ <u></u> ┛┠──	1105				X	\square				65 67
Send 2 5	╶┽╴┨━──┤		22_	-	120				X			_		66 68
SR-Dact-10	╺┼╶╉╶╼╸╎		2-5	╎─┦──	1125	1			X ,					67 69-
SR-21/22		SS A	5-10	<u> </u>	130	1			X		_			68 70
17-01	+	SSZ			1140		4	$ \downarrow $	X			_		69 71
$-\frac{1}{2}$	<u> </u>	<u>ss</u>	2-3		1145	1	¥.	¥1	X J	!				70 72
Matrix: S-Soil GW-Groundwater W Remarks: Samples to be HELD for			OT - Other					•				pН		Temp
Remarks: Samples to be HELD for	JUDA I S atter a	analysis.										Flov	/	Other

Renautened by (Signature) Caudit	Date: Time		Samples returned via: UPS	Condition:	(lab use only)
Relinguished bys(Signature)	Dete: Time	Received by (Signature)	Temp: Bottles Receiv	ed: COC Seal Intact:	V N
Relinquished by (Signature)	Date: Time	Received for tab by: (Signature)	Date: Time: 10 /8 //0 0900	pH Checked:	

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		Billi	ng informatio	n:			A	nalys	is/Con	tainer/Pr	eservati	ive		, Chain of Custody
MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		2 1	MACTEC AP Processing 1105 Lakewood, Ste. 300 Alpharetta,GA 30009										/	Page_of_
Report to: Mr. Scott Kelly Project Pescription: RBTC-500 VAC <u>Leitchrfteld, KY</u>		En	Emait tskelly@mactec.com				oPres		8ozClr-NoPres			/		L+A+B S+C+t+E+N+C+E+S 12065 Lebanon Road Mt. Juliet, TN 37122 Phone: (800) 767-5859
Client Project #: FAX: (502) 253-2501 G680-08-9635		5	Collected auisville, Ky Lab Project # MACTECLOU-RBTC500					HN03				X		Phone: (615) 758-5858 Fax: (615) 758-5859
Collected by (originature): Collected by (stignature): Collected by (stignature): C	Same Day . Next Day Two Day	Lab MUST Be	200% 100% .50%	2010136. Date Resu Email? FAX?N Date	Its Needed	No. of Cntrs	CR6 250mlHDPE-NoPres	Pb, Cr 500mIHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE					Acctnum MACTECLO ^(lab use only) Template/Prelogin T67470/ P334302 Cooler #: 9 20 10 MM Shipped Via: FedEX Standard
5B-21(5-10)		SS	5-10	inktin	153	T T	$\overline{}$		X		H	-		Remarks/Contaminant Sample # (lab only)
38-22/1-2)		SS	0-7	1013110	255		齐	<u>^</u>	X		F	. :	+	<u>(482930 -73 71</u> 72 74
58-23/2-52		SS	2-5		12m	. 1			X			-	·	73 75
SR-22(5-10)		SS	5-10		1205	1			X				-	74 46
58-23 10-22		SS	0-2		1220	1			X					75 77
53-23 (2-5)		ss	2-5		1325	1			X	-/			<u> </u>	76 78
58-23 (5-10)-		SS	5-10		1230	1	,		X			··	-	77 74
97-23 (5-10/4SZ		SS J	5-10		330	1	J	J	X		-	-		77 78 Pt-
58-2315-10/USI)		SS	5-10	V	1330	Ι	V	V	X	7				77 81
*Matrix: SS - Soil GW - Groundwater WW -			er OT - Other	, 						/	p	н		Temp
Remarks: Samples to be HELD for 9	0 DAYS after	analysis.									F	low		Other

-

Reinquished by: (Signature)	Date.	Time:	Received by: (Signature)	Samples return		Condition:	(lab use only)
Relinquished by: (Signature)	Date: {	Time:	Received by: (Signature)	Temp: Hand	Bottles Received:	COC Seal Intact:	
Relinquished by: (Signature)	Date:	Time;	Received for lab by: (Signature)	Date: 10/8/10	Time:	pH Checked:	
	· · · · · · · · · · · · · · · · · · ·		Kin is allen	10/0/10	0400		

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MACTEC Interio		Billing information:	An	alγsis/C	ontainer/Pres	ervative		Chain of Custody
MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		MACTEC AP Processing 1105 Lakewood, Ste. 300 Alpharetta,GA 30009		Se				Page_of_
Report to: Mr. Scott Kelly		Emailt tskelly@mactec.com	-	loPr			/	L+A+B S+C+I+E+N+C+E+S 12065 Lebanon Road
Project Description: RBTC-500 VAC - Leitcl	lield, KY	City/State Collecter aussille Ky		8ozClr-NoPres				Mt. Juliet, TN 37122 Phone: (800) 767-5859
hone: (502) 253-2500 Client Project #: AX: (502) 253-2501 6680-08-9635		Lab Project # MACTECLOU-RBTC500	Pres					Phone: (615) 758-5858 Fax: (615) 758-5859
ollected by (print)	Site/Facility ID#: Rush? (Lab MUS	P.O.#: 201013638 9/30 T Be Notified)	DE-No	DPE-H				
mmediately acked on Ice N Y	Same Day		cR6 250mlHDPE-NoPres	Pb, Cr 500mlHDPE-HNO3 Pb,C6,CR6SS+ARCHIVE			Co	cctnum MACTECLOU ^(lab use only) emplate/Prelogin T67470/ P334302 coler #: 0/3C/0/2006
Sample ID	Comp/Grab Matrix		CR6	Ph C				nipped Via: FedEX Standard
<u></u>	<u>C</u> ss	0-2 10/5/10/25 1	X	$\chi \mathbf{x}$				L482930 -82 7
SB-JULE-10	SS SS	3-10 310 1	+++-		↓			79 83
SR-510-2)	SS SS	0-2 1 134	+++		+		┥──┤─-	80
Stat 2-52	SS	2-5 1253				┨── ┃ ╌─		8/ 85
53-573-12	SS	570 . 11/10 1	╶┼╂╌┼╴	X				<u> </u>
SB-26(0-2)		0-2 10/10 6955 1		X	1		+ +-	<u>83 87</u> 84 58
56-26(2-52		2-3 1120 1	V	/ X	7 -			85 89
<u></u>		5-10 + 1125 1		X			* 	86 90
Matrix ss-soil GW-Groundwater WW-		Water OT - Other			,	pH		Temp Sur
emarks: Samples to be HELD for 90	DAYS after analysis.		_			Flow		Other
A	<u> </u>			5,	3559	208	5762	
Relinquished by (Signalua)	Date: Tim				FedEx Co	edivia: 🔲 ounier 📋		Condition: (lab use only)
and the second second				1	emp: Amb	Bottles Re		COC Seal Intact: Y N LA
Relinquished by (Signature)	Date: Tim	(alginature)		D	ate:	Time:	10	COC Seai Intact: Y N A
		Kun lexas		[[18/10	090	\mathcal{O}	

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YOUR LAB OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223

Report Summary

Thursday November 04, 2010

Report Number: L485755 Samples Received: 10/08/10 Client Project: 6680-08-9635

Description: RBTC-500 VAC

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Leslie Sector

Leslie Newton , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487 GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140 NJ - TN002,NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233 AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A, TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences. Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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VOUR LAB OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 3-5859	
		RED	ORT OF ANAL	VSTS					
Mr. Scott Kelly MACTEC – Louisville 13425 Eastpoint Cer Louisville, KY 4022	nter Dr. Ste. 122			1010	No	ovember 0	4,2010		
					ES	C Sample	# : L48575	5-01	
	October 08, 2010 RBTC-500 VAC - Lon		КҮ						
_		,			Si	te ID :			
Sample ID :	SB-1 0-2 FT				Pr	oject :	6680-08-963	5	
Collected By : Collection Date :	Michael J. Caudil: 10/04/10 10:08	1				5			
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction		-				1311	10/28/10 1158	8 MVE	1
Chromium Lead		BDL BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	10/30/10 1124 10/30/10 1124		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

Page 2 of 45

VOUR LAB OF CHOIC	-						12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		סייס	ORT OF ANAI	VOTO					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cen Louisville, KY 402	nter Dr. Ste. 122	KEP	ORI OF ANAL	1212	No	ovember O	4,2010		
					ES	C Sample	# : L485755	5-02	
	October 08, 201		1232						
Description :	RBTC-500 VAC - Lo	Suisviile,	Κĭ		Si	te ID :			
Sample ID :	SB-1 5-10 FT				_			_	
Collected By : Collection Date :	Michael J. Caudi 10/04/10 10:15	11			Pr	oject :	6680-08-9635)	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/28/10 1158	8 MVE	1
Chromium		0.59	0.050	mg/l	5.0	6010B	10/30/10 1128	B ALT	1
Lead		BDL	0.050	mg/l	5.0	6010B	10/30/10 1128	B ALT	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

Page 3 of 45

VOUR LAB OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 3-5859	•
		PFD	ORT OF ANAL	VQTQ					
Mr. Scott Kelly MACTEC - Louisvill 13425 Eastpoint Ce Louisville, KY 402	nter Dr. Ste. 122	KEP	ORI OF ANAL	1313	No	ovember O	4,2010		
					ES	C Sample	#: L485755	5-03	
Date Received : Description :	October 08, 2010 RBTC-500 VAC - Lon		VV						
Description :	KBIC-SOU VAC - LO	uisviile,	K1		Si	te ID :			
Sample ID :	SB-3 0-2 FT				Dre	oject :	6680-08-9635	-	
Collected By : Collection Date :	Michael J. Caudil 10/04/10 10:53	1			PI	oject :	0080-08-9035	0	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction		-				1311	10/28/10 1158	B MVE	1
Chromium		BDL	0.050	mg/l	5.0	6010B	10/30/10 1131		
Lead		BDL	0.050	mg/l	5.0	6010B	10/30/10 1131	l ALT	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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CALE SICILIE OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		סקר	ORT OF ANAI	VOTO					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Ce Louisville, KY 402	nter Dr. Ste. 122	KLF	ORI OF ANAL	1212	No	ovember O	4,2010		
					ES	C Sample	# : L485755	5-04	
Date Received : Description :	October 08, 20 RBTC-500 VAC - L		KV						
Description :	RBIC JUU VAC D	oursvirie,			Si	te ID :			
Sample ID :	SB-3 2-5 FT				Dee	oject :	6680-08-9635	_	
Collected By : Collection Date :	Michael J. Caudi 10/04/10 10:56	11			PI	oject :	6680-08-9635)	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/28/10 1158	8 MVE	1
Chromium		0.11	0.050	mg/l	5.0	6010B	10/30/10 1134		
Lead		BDL	0.25	mg/l	5.0	6010B	10/30/10 1354	ALT	5

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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CALE SICILIE OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		סידים	ORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Ce Louisville, KY 402	nter Dr. Ste. 122	KEP	ORI OF ANAL	1212	No	vember 0	4,2010		
					ES	C Sample	# : L485755	5-05	
Date Received : Description :	October 08, 201 RBTC-500 VAC - Lo		VV						
Description .	KBIC-300 VAC - LC	Juisviile,	K1		Si	te ID :			
Sample ID :	SB-7 5-10 FT				D			-	
Collected By : Collection Date :	Michael J. Caudil 10/04/10 13:15	11			Pr	oject :	6680-08-9635)	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/28/10 1158	8 MVE	1
Chromium		0.12	0.050	mg/l	5.0	6010B	10/30/10 1137	7 ALT	1
Lead		BDL	0.050	mg/l	5.0	6010B	10/30/10 1137	/ ALT	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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							12065 Lebanom Mt. Juliet, T (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	N 371 8 9 -5859	
		REPO	RT OF ANALY	SIS					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cen Louisville, KY 4022	ter Dr. Ste. 122				No	vember 04	4,2010		
Date Received :	October 08, 2010				ES	C Sample	# : L485755	-06	
	RBTC-500 VAC - Louis	ville,	КY		a +	te ID :			
Sample ID :	SB-8 0-2 FT								
Collected By : Collection Date :	Michael J. Caudill 10/04/10 13:33				Pr	oject :	6680-08-9635		
Parameter	Re	sult	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction		-				1311	10/28/10 1158	MVE	1
Chromium Lead		.8 DL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	10/30/10 1140 10/30/10 1140		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		סדי	PORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cen Louisville, KY 402	nter Dr. Ste. 122	REF	ORI OF ANAL	1212	No	ovember O	94,2010		
					ES	C Sample	e # : L48575	5-07	
Date Received : Description :	October 08, 201 RBTC-500 VAC - Lo		1232						
Description .	RBIC-SUU VAC - LO	JUISVIIIE,	, KI		Si	te ID :			
Sample ID :	SB-8 2-5 FT				-			-	
Collected By : Collection Date :	Michael J. Caudi 10/04/10 13:35	11			Pr	oject :	6680-08-963)	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/28/10 1158	8 MVE	1
Chromium		8.0	0.050	mg/l	5.0	6010B	10/30/10 1143		
Lead		BDL	0.050	mg/l	5.0	6010B	10/30/10 1143	B ALT	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanon Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 757 Tax I.D. 62-0 Est. 1970	TN 3712 58 59 3-5859	
	סקינ	ORT OF ANAL	VGTC					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 1 Louisville, KY 40223		OKI OF ANAL	1313	NC	vember 0	4,2010		
				ES	C Sample	# : L48575	5-08	
Date Received : October 08, Description : RBTC-500 VAC		KV						
-		K1		Si	te ID :			
Sample ID : SB-8 5-10 FT	ſ			Dr	oject :	6680-08-963	-	
Collected By : Michael J. Ca Collection Date : 10/04/10 13:4				ΡI	0 9000 0	0000-00-903.	J	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	10/28/10 1158	3 MVE	1
Chromium	4.4	0.050	mg/l	5.0		10/30/10 1218		
Lead	BDL	0.050	mg/l	5.0	6010B	10/30/10 1218	3 ALT	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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ELAND SICILIE OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr Louisville, KY 40223		PORT OF ANALY	2515	Nov	vember 0	4,2010		
	el J. Caudill	, КҮ		Sit	C Sample te ID : oject :	# : L48575		
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	10/28/10 1158	B MVE	1
Chromium Lead	BDL BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	10/30/10 122 10/30/10 122		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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CALE SICILIE OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		חידם	ORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Ce Louisville, KY 402	nter Dr. Ste. 122	KEP	ORI OF ANAL	11515	No	ovember O	4,2010		
					ES	C Sample	# : L485755	5-10	
	October 08, 201		1237						
Description :	RBTC-500 VAC - Lo	Juisviile,	Κĭ		Si	te ID :			
Sample ID :	SB-11 0-2 FT				_			_	
Collected By : Collection Date :	Michael J. Caudil 10/04/10 15:13	11			Pr	oject :	6680-08-9635)	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/28/10 1158	8 MVE	1
Chromium		BDL	0.050	mg/l	5.0	6010B	10/30/10 1224	ALT	1
Lead		BDL	0.050	mg/l	5.0	6010B	10/30/10 1224	ALT	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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COUR LAB OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		סקר	ORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cen Louisville, KY 402	nter Dr. Ste. 122	KLF	ORI OF ANAL	1512	No	ovember O	4,2010		
					ES	C Sample	# : L485755	5-11	
Date Received : Description :	October 08, 201 RBTC-500 VAC - Lo		1232						
Description .	RBIC-SUU VAC - LC	Juisviile,	КI		Si	te ID :			
Sample ID :	SB-11 2-5 FT				-			-	
Collected By : Collection Date :	Michael J. Caudil 10/04/10 15:15	11			Pr	oject :	6680-08-9635)	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/28/10 1158	8 MVE	1
Chromium		BDL	0.050	mg/l	5.0	6010B	10/30/10 1225	7 ALT	1
Lead		BDL	0.050	mg/l	5.0	6010B	10/30/10 1225	/ ALT	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 756 Tax I.D. 62-(Est. 1970	TN 37122 58 59 3-5859
	DFC	ORT OF ANAL	VOTO				
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 12: Louisville, KY 40223		ORI OF ANAL	11515	No	vember O	4,2010	
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-11 5-10 FT Collected By : Michael J. Cauc Collection Date : 10/04/10 15:20	Louisville,	КY		Si	C Sample te ID : oject :	: # : L48575! 6680-08-963!	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By Dil
TCLP Extraction	-				1311	10/29/10 0707	/ LJN 1
Chromium Lead	0.25 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1759 11/02/10 1759	

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, (615) 758-58 1-800-767-58 Fax (615) 75 Tax I.D. 62-0 Est. 1970	TN 3712 58 59 3-5859	
	DED		VOTO					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 12 Louisville, KY 40223		ORT OF ANAL	11212	No	vember 0	4,2010		
Date Received : October 08, Description : RBTC-500 VAC - Sample ID : SB-13 2-5 FT Collected By : Michael J. Cau Collection Date : 10/04/10 15:40	Louisville, dill	КY		Si	C Sample te ID : oject :	e # : L48575		
Parameter	Result	Det. Limit	. Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction	-				1311	10/29/10 070	7 LJN	1
Chromium Lead	0.47 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 175 11/02/10 175		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 758 Tax I.D. 62-(Est. 1970	FN 37122 58 59 3-5859	
	סקר	ORT OF ANAI	VOTO					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORI OF ANAL	1212	No	ovember O	4,2010		
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-13 5-10 FT Collected By : Michael J. Caud Collection Date : 10/04/10 15:45	Louisville,	КY		Si	C Sample te ID : oject :	# : L48575! 6680-08-963!		
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By Dil	
TCLP Extraction	_				1311	10/29/10 070	7 LJN 1	
Chromium Lead	0.48 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1754 11/02/10 1754		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE							12065 Lebanon Mt. Juliet, T (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	N 371 8 9 -5859	
		REPORT	OF ANALY	SIS					
Mr. Scott Kelly MACTEC - Louisville, K 13425 Eastpoint Center Louisville, KY 40223					No	vember 04	4,2010		
Date Received : Oc	tober 08, 2010				ES	C Sample	#: L485755	-15	
	STC-500 VAC - Louisvi	lle, KY			c :	te ID :			
Sample ID : SB	8-14 2-5 FT								
	chael J. Caudill /04/10 16:15				Pr	oject :	6680-08-9635		
Parameter	Resu	lt De	t. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction	-					1311	10/29/10 0707	LJN	1
Chromium Lead	1.1 BDL		0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1751 11/02/10 1751		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanon Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 757 Tax I.D. 62-0 Est. 1970	TN 3712 58 59 3-5859	
	חשת	ORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 12 Louisville, KY 40223		ORI OF ANAL	11212	No	vember O	94,2010		
Description : RBTC-500 VAC - Sample ID : SB-14 5-10 FT Collected By : Michael J. Cau	dill	КY		Si	C Sample te ID : oject :	2 # : L48575		
Collection Date : 10/04/10 16:20)							
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	10/29/10 070	7 LJN	1
Chromium Lead	0.44 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1749 11/02/10 1749		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 37122 58 59 3-5859
	חשת	ORT OF ANAI	VOTO				
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 12 Louisville, KY 40223		ORI OF ANAL	1212	No	vember O	94,2010	
Date Received : October 08, Description : RBTC-500 VAC - Sample ID : SB-15 0-2 FT Collected By : Michael J. Cau Collection Date : 10/05/10 08:45	Louisville, dill	КY		Si	C Sample te ID : oject :	2 # : L48575! 6680-08-963!	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By Dil
TCLP Extraction	-				1311	10/29/10 070	7 LJN 1
Chromium Lead	0.080 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1740 11/02/10 1740	

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-589 1-800-767-589 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	1
	ססי	PORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. Louisville, KY 40223		ORI OF ANAL	1515	No	vember 0	4,2010		
Description : RBTC-500 VA	08, 2010 AC - Louisville,	KY			C Sample	# : L485755	5-18	
Sample ID : SB-16 0-2	FT			Dre	oiect :	6680-08-963	-	
Collected By : Michael J. Collection Date : 10/05/10 09				PI	oject :	0000-00-903:)	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction	-				1311	10/29/10 070	7 LJN	1
Chromium Lead	0.31 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1742 11/02/10 1742		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE							12065 Lebanon Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 75 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		חידם	ORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC – Louisville 13425 Eastpoint Cen Louisville, KY 4022	ter Dr. Ste. 122	KEP	ORI OF ANAL	1315	No	vember 0	4,2010		
Description : Sample ID : Collected By :		ouisville,	КY		Si	C Sample te ID : oject :	e # : L48575! 6680-08-963!		
Collection Date :	10/05/10 09:15								
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction		-				1311	10/29/10 070	/ LJN	1
Chromium Lead		0.18 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1739 11/02/10 1739		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 756 Tax I.D. 62-0 Est. 1970	FN 37122 58 59 3-5859
	DFC	ORT OF ANAL	VOTO				
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 12 Louisville, KY 40223		ORI OF ANAL	11515	No	vember O	4,2010	
Date Received : October 08, Description : RBTC-500 VAC - Sample ID : SB-16 5-10 FT Collected By : Michael J. Cau Collection Date : 10/05/10 09:20	Louisville, dill	КY		Si	C Sample te ID : oject :	: # : L485755	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By Dil
TCLP Extraction	-				1311	10/29/10 0707	7 LJN 1
Chromium Lead	0.23 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1737 11/02/10 1737	

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 37122 58 59 3-5859
	משם	ORT OF ANAI	VOTO				
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. Louisville, KY 40223		ORI OF ANAL	1212	No	vember O	4,2010	
Date Received : October 0 Description : RBTC-500 VA Sample ID : SB-17 0-2 Collected By : Michael J. Collection Date : 10/05/10 09	C - Louisville, FT Caudill	КY		Si	C Sample te ID : oject :	: # : L48575! 6680-08-963!	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By Dil
TCLP Extraction	-				1311	10/29/10 0707	7 LJN 1
Chromium Lead	0.052 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1650 11/02/10 1650	

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE							12065 Lebanon Mt. Juliet, T (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	N 371 8 9 -5859	
		REPO	RT OF ANALY	SIS					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cer Louisville, KY 4022	ter Dr. Ste. 122				No	vember 0	4,2010		
					ES	C Sample	# : L485755	-22	
	October 08, 2010 RBTC-500 VAC - Louis	ville,	КY						
_					Si	te ID :			
Sampie 12					Pr	oject :	6680-08-9635		
Collected By : Collection Date :	Michael J. Caudill 10/05/10 11:20								
Parameter	Re	sult	Det. Limit	Units I	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction		-				1311	10/29/10 0707	LJN	1
Chromium Lead	-	BDL BDL	0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1653 11/02/10 1653		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 37122 58 59 3-5859
	סדה	ORT OF ANAL	VOTO				
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. Louisville, KY 40223		JKI OF ANAL	1010	No	vember O	4,2010	
Date Received : October 0 Description : RBTC-500 VA Sample ID : SB-20 2-5 Collected By : Michael J. Collection Date : 10/05/10 11	C - Louisville, FT Caudill	КY		Si	C Sample te ID : oject :	# : L485759	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By Dil
TCLP Extraction	-				1311	10/29/10 0707	/ LJN 1
Chromium Lead	0.056 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1651 11/02/10 1651	

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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ELAND SICILIEINICIEIS						12065 Lebanor Mt. Juliet, ' (615) 758-58 1-800-767-58 Fax (615) 75 Tax I.D. 62-1 Est. 1970	FN 3712 58 59 3-5859	
	סדיד	PORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223		ORI OF ANAL	1515	No	ovember O	94,2010		
Date Received : October 08, 2 Description : RBTC-500 VAC - : Sample ID : SB-20 5-10 FT Collected By : Michael J. Caud. Collection Date : 10/05/10 11:30	Louisville,	, КҮ		Si	C Sample te ID : oject :	e # : L48575		
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction	-				1311	10/29/10 070	7 LJN	1
Chromium Lead	0.070 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 144 11/02/10 144		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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COUR LAB OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		סקר	ORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cen Louisville, KY 402	nter Dr. Ste. 122	KLF	ORI OF ANAL	1212	No	ovember O	94,2010		
					ES	C Sample	e # : L485755	5-25	
	October 08, 201		12.32						
Description :	RBTC-500 VAC - Lo	Juisviile,	Κĭ		Si	te ID :			
Sample ID :	SB-21 2-5 FT				_			_	
Collected By : Collection Date :	Michael J. Caudil 10/05/10 11:45	11			Pr	oject :	6680-08-9635)	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/29/10 0707	7 LJN	1
Chromium		BDL	0.050	mg/l	5.0	6010B	11/02/10 1648		
Lead		BDL	0.050	mg/l	5.0	6010B	11/02/10 1648	B ESC	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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CALE SICILIE OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		סקר	ORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cen Louisville, KY 402	nter Dr. Ste. 122	KLF	ORI OF ANAL	1512	No	ovember O	94,2010		
					ES	C Sample	e # : L485755	5-26	
	October 08, 201		1232						
Description :	RBTC-500 VAC - Lo	oursviile,	Κĭ		Si	te ID :			
Sample ID :	SB-22 2-5 FT							_	
Collected By : Collection Date :	Michael J. Caudil 10/05/10 13:00	11			Pr	oject :	6680-08-9635)	
Parameter		Result	Det. Limit	. Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/29/10 0707	7 LJN	1
Chromium		BDL	0.050	mg/l	5.0	6010B	11/02/10 1646	5 ESC	1
Lead		BDL	0.050	mg/l	5.0	6010B	11/02/10 1646	5 ESC	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, (615) 758-58 1-800-767-58 Fax (615) 75 Tax I.D. 62-0 Est. 1970	EN 371 58 59 3-5859	
	זקס	PORT OF ANAI	VOTO					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 12: Louisville, KY 40223		ORI OF ANAL	1212	No	ovember O	4,2010		
Date Received : October 08, 2 Description : RBTC-500 VAC - Sample ID : SB-22 5-10 FT Collected By : Michael J. Cauc	Louisville,	КҮ		Si	C Sample te ID : oject :	# : L48575		
Collection Date : 10/05/10 13:05								
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	10/29/10 070	7 LJN	1
Chromium Lead	0.062 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 164 11/02/10 164		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 3-5859	
Mr. Scott Kelly	RE	PORT OF ANAL	YSIS	No	vember 0	4,2010		
MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Louisville, KY 40223	Ste. 122					,		
Date Received : October		7777		ES	C Sample	e # : L485755	5-28	
-) VAC - Louisville	e, KY		Si	te ID :			
Sample ID : SB-23				Pr	oject :	6680-08-9635	5	
Collected By : Michael Collection Date : 10/05/1								
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction	-				1311	10/29/10 0707	/ LJN	1
Chromium Lead	BDL 0.11	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1801 11/02/10 1801		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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SOUR LAB OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		חיםם	ORT OF ANALY	7010					
Mr. Scott Kelly MACTEC - Louisvill 13425 Eastpoint Ce Louisville, KY 402	nter Dr. Ste. 122	KEP	ORI OF ANAL:	1515	No	vember 0	4,2010		
	October 08, 2010				ES	C Sample	#: L485759	5-29	
Description :	RBTC-500 VAC - Lou	uisville,	КY		ci	te ID :			
Sample ID :	SB-23 5-10 FT				51	te iD .			
Collected By : Collection Date :	Michael J. Caudill 10/05/10 13:30	L			Pr	oject :	6680-08-963	5	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/29/10 070	7 LJN	1
Chromium Lead		BDL BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 1639 11/02/10 1639		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
	זקס	PORT OF ANAI	VOTO					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 1 Louisville, KY 40223		ORI OF ANAL	1212	No	vember O	4,2010		
				ES	C Sample	# : L485755	5-30	
Date Received : October 08, Description : RBTC-500 VAC		1232						
Description · RBIC-500 VAC	- Louisviile,	, KI		Si	te ID :			
Sample ID : SB-28 0-2 FT	י -			-			-	
Collected By : Michael J. Ca Collection Date : 10/07/10 08:3				Pr	oject :	6680-08-9635)	
Parameter	Result	Det. Limit	. Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	10/29/10 0707	7 AJN	1
Chromium	1.4	0.050	mg/l	5.0	6010B	10/30/10 1823	B ICO	1
Lead	BDL	0.050	mg/l	5.0	6010B	10/30/10 1823	B ICO	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 3-5859	
	ਸਿਤ	PORT OF ANAI	VSIS					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 12 Louisville, KY 40223			1010	No	vember O	94,2010		
				ES	C Sample	e # : L485755	5-31	
Date Received : October 08, Description : RBTC-500 VAC -		ĸv						
-	LOUISVIIIE	, 1(1		Si	te ID :			
Sample ID : SB-28 2-5 FT				Dr	oject :	6680-08-9635	-	
Collected By : Michael J. Cau Collection Date : 10/07/10 08:40				PI	0 9000 0	0080-08-903	5	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	10/29/10 0707	7 AJN	1
Chromium	1.5	0.050	mg/l	5.0	6010B	10/30/10 1826		
Lead	BDL	0.050	mg/l	5.0	6010B	10/30/10 1826	5 ICO	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		סקר	PORT OF ANAL	VOTO					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cen Louisville, KY 4022	iter Dr. Ste. 122	KLF	ORI OF ANAL	11515	No	vember O	94,2010		
					ES	C Sample	e # : L485755	5-32	
Date Received : Description :	October 08, 201 RBTC-500 VAC - Lo		1232						
Description :	RBIC-SUU VAC - LC	Juisviile,	KI.		Si	te ID :			
Sample ID :	SB-28 5-10 FT				-			-	
Collected By : Collection Date :	Michael J. Caudil 10/07/10 08:45	11			Pr	oject :	6680-08-9635)	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/29/10 0707	7 AJN	1
Chromium		3.9	0.050	mg/l	5.0	6010B	10/30/10 1829) ICO	1
Lead		BDL	0.050	mg/l	5.0	6010B	10/30/10 1829) ICO	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	N 371 8 9 -5859	
		REP	ORT OF ANAL	YSTS					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cer Louisville, KY 4022	nter Dr. Ste. 122				No	vember 0	4,2010		
					ES	C Sample	#: L485755	5-33	
	October 08, 2010 RBTC-500 VAC - Lou		КY						
_		·····			Si	te ID :			
Sample ID :	5B-29 U-2 FI				Pr	oject :	6680-08-9635	5	
Collected By : Collection Date :	Michael J. Caudil 10/06/10 10:20	1							
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/29/10 0707	/ AJN	1
Chromium		0.77 BDL	0.050	mg/l mg/l	5.0		10/30/10 1833 10/30/10 1833		
TCLP Extraction		-				1311	10/29/10 0707	/ AJN B ICO	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
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Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 1 Louisville, KY 40223		ORI OF ANAL	1212	No	vember O	4,2010		
				ES	C Sample	#: L485755	5-34	
Date Received : October 08 Description : RBTC-500 VAC		1232						
Description · RBIC-500 VAC	- LOUISVIIIe,	, KI		Si	te ID :			
Sample ID : SB-29 2-5 F	Г			-			-	
Collected By : Michael J. Ca Collection Date : 10/06/10 12:				Pr	oject :	6680-08-9635)	
Parameter	Result	Det. Limit	. Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	10/29/10 0705	7 AJN	1
Chromium	2.8	0.050	mg/l	5.0	6010B	10/30/10 1836	5 ICO	1
Lead	BDL	0.050	mg/l	5.0	6010B	10/30/10 1836	5 ICO	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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COUR LAB OF CHOIC							12065 Lebanor Mt. Juliet, 7 (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 371 58 59 8-5859	
		REP	ORT OF ANAL	YSIS					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cer Louisville, KY 4022	nter Dr. Ste. 122				No	ovember 0	4,2010		
		2			ES	C Sample	e # : L485755	5-35	
	October 08, 201 RBTC-500 VAC - Lo		KY						
Sample ID :	SB-30 0-2 FT				Si	te ID :			
_	Michael J. Caudil	1			Pr	oject :	6680-08-9635	5	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction		-				1311	10/29/10 0707	7 AJN	1
Chromium Lead		BDL BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	10/30/10 1839 10/30/10 1839		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, 7 (615) 758-58 1-800-767-58 Fax (615) 758 Tax I.D. 62-0 Est. 1970	TN 3712 8 9 8-5859	
	חידם	ORT OF ANAI	VOTO					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. Louisville, KY 40223		ORI OF ANAL	1515	No	vember O	4,2010		
		КҮ		Si	C Sample te ID : oject :	: # : L48575! 6680-08-963!		
Collection Date : 10/06/10 14:	00							
Parameter	Result	Det. Limit	. Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction	-				1311	10/29/10 070	/ AJN	1
Chromium Lead	0.084 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	10/30/10 1842 10/30/10 1842		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanon Mt. Juliet, T (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	N 371 8 9 -5859	
	Ta c		VOTO					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center I Louisville, KY 40223		PORT OF ANAL	1515	No	vember 0	4,2010		
				ES	C Sample	# : L485755	-37	
	ober 08, 2010	1232						
Description : RBT	C-500 VAC - Louisville,	, KI		Si	te ID :			
Sample ID : SB-	36 0-2 FT			_				
Collected By : Mic Collection Date : 10/	hael J. Caudill 07/10 09:50			Pr	oject :	6680-08-9635)	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction	_				1311	10/29/10 0707	AJN	1
Chromium	BDL	0.050	mg/l	5.0	6010B	10/30/10 1845	ICO	1
Lead	BDL	0.050	mg/l	5.0	6010B	10/30/10 1845	ICO	1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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VOUR LAB OF CHOICE						12065 Lebanor Mt. Juliet, (615) 758-58 1-800-767-58 Fax (615) 75 Tax I.D. 62-0 Est. 1970	FN 371 58 59 3-5859	I
	D II		VATA					
Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste Louisville, KY 40223		PORT OF ANAL	YSIS	No	ovember O	94,2010		
Date Received : October Description : RBTC-500 V	08, 2010 /AC - Louisville	KV		ES	C Sample	e # : L48575	5-38	
Description · RBIC-500 ·	AC - LOUISVIIIE	,		Si	te ID :			
Sample ID : DUP-2								
Collected By : Michael J Collection Date : 10/05/10 (Pr	oject :	6680-08-963	5	
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction	-				1311	10/29/10 070	7 LJN	1
Chromium Lead	0.52 BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/02/10 163 11/02/10 163		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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							12065 Lebanor Mt. Juliet, 7 (615) 758-589 1-800-767-589 Fax (615) 758 Tax I.D. 62-0 Est. 1970	FN 371 58 59 3-5859	•
		חשת		2010					
Mr. Scott Kelly MACTEC - Louisvil 13425 Eastpoint C Louisville, KY 40	enter Dr. Ste. 122	REP	ORT OF ANALY	1515	No	ovember O	4,2010		
					ES	C Sample	# : L485755	5-39	
	October 08, 2010					-			
Description :	RBTC-500 VAC - Lou	uisville,	ΚY		ci	te ID :			
Sample ID :	DUP-3				51	ite iD •			
Collected By : Collection Date :	Michael J. Caudill 10/05/10 00:00	L			Pr	oject :	6680-08-9635	5	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil
TCLP Extraction		-				1311	10/29/10 070	7 LJN	1
Chromium Lead		BDL BDL	0.050 0.050	mg/l mg/l	5.0 5.0	6010B 6010B	11/03/10 124 11/03/10 124		

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 11/04/10 09:49 Printed: 11/04/10 09:50

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Attachment A List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L485755-04	WG505748	SAMP	Lead	R14478	
L485755-24	WG505842	SAMP	Chromium	R14541	

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Attachment B Explanation of QC Qualifier Codes

Qualifier	Meaning
0	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
Pl	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.
- Surrogate Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Page 42 of 45

TSR Signing Reports: 044 R5 - Desired TAT

Alison's direct dial 859-566-3729

Sample: L485755-01 Account: Relogged from L482930-01	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-02 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-03 Sample: L485755-03 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-07 Sample: L485755-04 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-08 Sample: L485755-05 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-21 Sample: L485755-06 Account:												
Relogged from L482930-22 Sample: L485755-07 Account:												
Relogged from L482930-23												
Sample: L485755-08 Account: Relogged from L482930-24												
Sample: L485755-09 Account: Relogged from L482930-32	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-10 Account: Relogged from L482930-34	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-11 Account: Relogged from L482930-35	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-12 Account: Relogged from L482930-36	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-13 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-41 Sample: L485755-14 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-42 Sample: L485755-15 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-44 Sample: L485755-16 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-45 Sample: L485755-17 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-46 Sample: L485755-18 Account:												
Relogged from L482930-50 Sample: L485755-19 Account:												
Relogged from L482930-51												
Sample: L485755-20 Account: Relogged from L482930-52												
Sample: L485755-21 Account: Relogged from L482930-54	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-22 Account: Relogged from L482930-66	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-23 Account: Relogged from L482930-67	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-24 Account: Relogged from L482930-68	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-25 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-70 Sample: L485755-26 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-73 Sample: L485755-27 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-74 Sample: L485755-28 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-76 Sample: L485755-29 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-77 Sample: L485755-30 Account:												
Relogged from L482930-88 Sample: L485755-31 Account:												
Relogged from L482930-89												
Sample: L485755-32 Account: Relogged from L482930-90												
Sample: L485755-33 Account: Relogged from L482930-91	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-34 Account: Relogged from L482930-92	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-35 Account: Relogged from L482930-94	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-36 Account: Relogged from L482930-100	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Sample: L485755-37 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-116 Sample: L485755-38 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-124 Sample: L485755-39 Account:	MACTECLOU Rece	ived:	10/08/10	09:00	Due	Date:	11/02/10	00:00	RPT	Date:	11/04/10	09:49
Relogged from L482930-125												

в S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

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Louisville, KY 40223

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Tax I.D. 62-0814289

Est. 1970

November 04, 2010

			oratory					
Analyte	Result	Un	its	% Rec		Limit	Batch D	ate Analyzed
Chromium	< .05	mq	/1				WG505748 1	0/28/10 23:0
Lead	< .05	mg	/1				WG505748 1	0/28/10 23:0
Chromium Lead	< .05 < .05	mg						0/30/10 17:4 0/30/10 17:4
Lead	< .05	mg	/ 1				WG50592/ 1	0/30/10 1/.4
Chromium	< .05	mg	/1				WG505842 1	1/02/10 14:4
Lead	< .05	mg	/1				WG505842 1	1/02/10 14:4
			Duplica	t 0				
Analyte	Units	Result		icate	RPD	Limit	Ref Samp	Batch
							1101 2 0111 <u>F</u>	
Chromium	mg/l	0	0		0	20	L485895-0	
Lead	mg/l	0.400	0.38	0	5.13	20	L485895-0	1 WG50574
Chromium	mg/l	0	0		0	20	L486107-0	1 WG50592
Lead	mg/1	0	0		0	20	L486107-0	
Chromium	mg/l	0.0560	0.07	00	21.9*	20	L485755-2	
Lead	mg/l	0	0		0	20	L485755-2	4 WG50584
		Laborat	ory Cont	rol Samp	le			
Analyte	Units	Known	-	_	ult	% Rec	Limit	Batch
Chromium Lead	mg/1	1.13		1.15		102. 106.	85-115 85-115	WG50574
Lead	mg/l	1.13		1.20		100.	85-115	WG50574
Chromium	mg/l	1.13		1.07		94.7	85-115	WG50592
Lead	mg/l	1.13		1.07		94.7	85-115	WG50592
	(7	1 1 2		1 05			05 115	11950504
Chromium Lead	mg/l mg/l	1.13		1.05		92.9 95.6	85-115 85-115	WG50584 WG50584
Dead	11197 I	1.15		1.00		95.0	05-115	<u></u> 050584
		М	atrix Sp	ike				
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Chromium	mg/l	1.15	0	1.13	102.	75-125	L485895-01	WG50574
Lead	mg/l	1.58	0.380	1.13	102.	75-125	L485895-01	
2000		1.00	0.500	1115	100.	/0 110	11000000 01	1000071
Chromium	mg/l	1.03	0	1.13	91.2	75-125	L486107-01	
Lead	mg/l	1.01	0	1.13	89.4	75-125	L486107-01	WG50592
Chromium	mg/l	1.23	0.0700	1.13	103.	75-125	L485755-24	WG50584
Lead	mg/l	1.19	0.0700	1.13	105.	75-125	L485755-24	
		-						
_			Spike D					
Analyte	Units	MSD Re	f %	Rec	Limit	RPD 1	Limit Ref Samp	Batch
Chromium	mg/l	1.16 1.	15 1	03.	75-125	0.866	20 L485895-01	WG50574
Lood	mg/1			00.	75 125			WCE0E74

75-125

1.88 20

L485895-01

WG505748

Quality Assurance Report Level II

L485755

Chromium Lead

mg/l 1.61 1.58 109. * Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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в S.C.I.E.N.C.E.S

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Louisville, KY 40223

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Est. 1970

Quality Assurance Report Level II

L485755

November 04, 2010

		Mat	rix Spike	Duplicate					
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Chromium	mg/l	1.04	1.03	92.0	75-125	0.966	20	L486107-01	WG505927
Lead	mg/l	0.965	1.01	85.4	75-125	4.56	20	L486107-01	WG505927
Chromium	mg/l	1.15	1.23	95.6	75-125	6.72	20	L485755-24	WG505842
Lead	mg/l	1.11	1.19	98.2	75-125	6.96	20	L485755-24	WG505842

Batch number /Run number / Sample number cross reference

WG505450: R1446913: L485755-01 02 03 04 05 06 07 08 09 10 11 WG505748: R1447810: L485755-01 02 03 04 05 06 07 08 09 10 11 WG505612: R1448689: L485755-12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 38 39 WG505676: R1448690: L485755-30 31 32 33 34 35 36 37 WG505927: R1449611: L485755-30 31 32 33 34 35 36 37 WG505842: R1454109: L485755-12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 38 WG506260: R1455870: L485755-39

* * Calculations are performed prior to rounding of reported values . * Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Page 44 of 45



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Louisville, KY 40223

Quality Assurance Report Level II

L485755

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

> Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier. 12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

November 04, 2010

Page 45 of 45

MACTEC - Louisvi			Billing Informatio	on:	· -	<u>-</u> -		Analy	sis/Cont	ainer/Pre	serval	ive	<u></u>	
13425 Eastpoint Center Louisville,KY 40223		i	MACTEC AP Proces 1105 Lake Alpharetta	ewood, Ste									F103	ain of Custody J ^a of
Report to: Mr. Scott Kelly Project Description: RBTC-500 VAC Phone: (502) 253-2500 AX: (502) 253-2501 Collegisted by (plint): MIC MIC MIC Collegisted by (plint): MIC MIC MIC Collegisted by (plint): MIC MIC MIC Michael MIC Sample ID MIC $MIC MIC MIC MIC MIC MIC MIC MIC MIC MIC $	Client Project 6680-08-9(Site/Facility ID Rush? Same Day Next Day. Two Day	#:	City/Stat. Collected Lab Pr MAC P.O.#: Be Notified) 200% 25% Depth	CTECLO1 2010136 Date Rese	$\frac{1}{1000} \frac{1}{1000} \frac{1}{1000$	No. of Cntrs	CR6 250mlHDPE-NoPres		X X X X X X X Y Y Pb,C6,CR6SS+ARCHIVE & CIr-NoPres				ML Phone Phone Fax Acctnum MAC Template/Prelogin Cooler #: Shipped Via: Remarks/Contami	-02-07 -02-03 -02-03 -04- -05 -03-07 -03-07 -04 -08
*Matrix: SS - Sol ² GW - Groundwater WW - 1 Remarks: Samples to be HELD for 90	WasteWater D	analysis.			. –		_	-	_				Temp	-84
Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature)	Date: Date: Date:	16 Time Time Time	Received	I by. (Signatu I by. (Signatu I by. (Signatu I by. (Signatu I by. (Sig	natur o)				Samp		ed via; ourier Bottle /4 Time		Condition: OK	(lab use only)

MACTEC - Louisville, KY	Billing information	Analy	sis/Container/Preservativ	e	
13425 Eastpoint Center Dr. Ste. 122 Louisville,KY 40223	MACTEC AP Processing 1105 Lakewood, Ste. 300 Alpharetta,GA 30009				Chain of Custody Page of
Report to: Mr. Scott Kelly Project Client Salle Description: RBTC-500 VAC - Leitchfield, KY Phone: (502) 253-2500 Client Project #: AX: (502) 253-2501 6680-08-9635 Collected by (phi): $(Cauch)$ Rush? AX: (502) 253-2501 6680-08-9635 Collected by (phi): $(Cauch)$ Rush? AM $Matrix$ Same Day Otlected by (phi): $(Cauch)$ Rush? Otlected by (stenature) Rush? Lab MUS	200% Date Results Needed		X X X X X X Bb,C6,CR6SS+ARCHIVE &ozCir-NoPres	St Re	LA-B S-C-1-E-N-C-E-S 12065 Lebanon Road Mt Juliet, TN 37122 Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859 conum: MACTECLO (1ab use only) emplate/Pretogin T67470/ P334302 poler #: 930/00 (WC) hipped Via: FedEX Standard emarks/Contaminant Sample # (1ab only) -28 -
Matrix SS Soit GW - Groundwater WW - WasteWater DW - Drinking W Remarks: Samples to be HELD for 90 DAYS after analysis.	Nater OT - Other	-	pH Flow _		Temp Other
Relinquished by (Signafire) Relinquished by (Signafire) Relinquished by (Signafire) Date: Time: Date: Time: Date: Time:	Received by: (Signature) Received by: (Signature) Received for leb by: (Signature) Kom WQ(b)		Samples returned via: Samples returned via: FedEx⊡Courier Temp: Date: Dat	IUPS Co	OK (lab use only) OK Y NCF: NCF:

MACTEC Louis	U. 1717	Billing inf	ormation:			Analysi	s/Conta	iner/Pres	ervativ		Chain of Custody
MACTEC - Louisvi 13425 Eastpoint Center Louisville,KY 40223		1105	TEC rocessing Lakewood, Ste rretta,GA 30009								Page_of_
Report to: Mr. Scott Kelly roject escription RBTC-500 VAC - Leitc hone: (502) 253-2500 AX: (502) 253-2501 ollected by (pgnt/ billected by (signature).	Client Project #: 6680-08-9635 Ste/Facility ID#: Rush? (Lab	D MUST Be Natifi	MACTECLOU P.O.#: 2010136	"// <i>e_Ky</i> -RBTC500 38 9/30		DPE-HNO3	Pb,C6,CR6SS+ARCHIVE &ozClr-NoPres				L: A: B S: C: 1: E: N: C: E: S 12065 Lebanon Road Mt. Juliet, TN 37122 Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859
Muchauffaudu mediately cked on Ice N Y Sample ID	Same Day	200% 100% 50% 25% Matrix* Dep	Email?	Ves of	1	Pb, Cr 500mlHDPE-HNO3	b,C6,CR6SS+	(C)			Acctaum MACTECLOU ^{ab} use only) Template/Prelogin T67470/P334302 Cooler #: 9(30)(0)/WS Shipped Via: FedEX Standard
5B-35(0-2) 5B-35(2-5) 5B-35(5-10)			2. 10/10 2. 1-1	1035		X				· · · · · · · · · · · · · · · · · · ·	Remarks/Contaminant Sample # (lab only) <u>L482930 -118</u> <u>-113</u> <u>119</u>
56-35 (10-20) R=5(10-20,418) So-35 (10-20,418) So-35 (10-20,418)		SS 10- SS 10- SS 10-2	20 Y	1050	1 1 1		X X X X				
1-58-36(2-5) 1-58-36(2-5) 1-58-36(5-10)	V L	55 0 GW 55 2-1 GW 55 5-7		0780 985 L 1200 L-	1 2 - X 2 - X	X	× ×/			· · · · · · · · · · · · · · · · · · ·	6485755-37 Hb +24 117+25 118 +25
Marks: Samples to be HELD for 90			Other		_				pH_ Flow	 	Temp Jer
Berneyished by Signature	Date Date	ime 120 R	leceived by: (Signatu					es returne edEx DCc			Condition: (lab use only)

MACTEC - Louisvi		Billing information:		<u>Analys</u>	is/Cont	ainer/Prese	ervative		Chain of Custody
13425 Eastboint Center Louisville,KY 40223		MACTEC AP Processing 1105 Lakewood, Ste. 300 Alpharetta,GA 30009	÷.		1				Page_of_
Report to: Mr. Scott Kelly Project Pescription: RBTC-500 VAC - Leite Phone: (502) 253-2500 FAX: (502) 253-2591 Colleging by (profil): / Tag	Hield, KY Client Project #: 6680-08-9635 Site/Facility ID#:	Email tskelly@mactec.com Collected_JourSh'lle,Kuy Lab Project # MACTECLOU-RBTC500	Pros -	INO3 -	HVE BOLCH-NoP	Main			L-A-B S-C+1-E-N-C+E-S 12065 Lebanon Road Mt. Juliet, TN 37122 Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859
Collected by (signature) Collected by (signature) Thuch and fraudilly Packed on Ice NY Sample ID	Rush? (Lab MUST Same Day	Date Results Needed	CR6 250mHDPE-NoPros	Pb, Cr 500mIIIDPE-IINO3	Pb, G6, CR6SS+ ARCHIVE BozCh-NoPres	ex-Chro	Cal		Acchum MACTECLO(^{Bab} use only) Template/Prelogin T67470/P334302 Cooler #: 93000000000000000000000000000000000000
EB-3-EB-1 EB-4-EB-2 EB-5-EB-3 BB-6-EB-4	C- GW GW GW GW	10/4/10/645 2 10/5/10/500 2 10/5/10/645 2			₹ C		N X I		Remarks/Contaminant Sample # (lab only) $\frac{\frac{1482}{120} + \frac{127}{120} = \frac{1}{120} + \frac{1}{120} + \frac{1}{120} = \frac{1}{120} + \frac{1}{120} + \frac{1}{120} = \frac{1}{120} + \frac{1}{10} + $
EB-7 Dep-1 EB-8 Dep-2 EB-9 Dep-3 Dep-4 Dep-4	SC - CHIS		X X X X	X X X X					-122 -130 -123 -131 LY85755-38 -124 132 39 -125 -133
Matrix: SS-Soil (W-Sroundwater WW-) emarks: Samples to be HELD for 90 SB-27 0-2	DAYS after analysis.	ater OT-Other 0-2_ lo/6/10 1010			14		pH_ Flow		<u>-+26_+34</u> <u>-+27_+35</u> Temp
Relinquished by (Signature) Relinquished by (Signature)	SS Deter Deter Deter Deter Time	Braning to 197	······		Fi	les returned edEx □Cou	Ivia D	1085]	-128 -136 sch Condition: O(C (lab use only)
Relinquished by (Supporter)	Date: Time.	Received for lab by. (Signature)	• •		Temp: Date: 10/8/	h _	Bottles I [4 Time: 091	Received D	COC Seal Intact: Y N NA

Jonah Huckabay

LY85755

From:Terrie FudgeSent:Tuesday, October 26, 2010 1:44 PMTo:Terrie Fudge; Sample Storage; LoginCc:Jim Burns; TCLP; MetalsSubject:RE: MACTECKTN - L482930

Sorry this should be MACTECLOU

From:	Terrie Fudge
Sent:	Tuesday, October 26, 2010 1:37 PM
To:	Sample Storage; Login
Cc:	Jim Burns; TCLP; Metals; Terrie Fudge
Subject:	MACTECKTN - L482930

Please find the following samples and take to login

Login - please log these as TCLP Lead & Chromium w/ a normal tat

L482930-01, 03, 07 08, -21, -22, -23, -24, -32, -34, -35, -36, -41, -42, -44, -45, -46, -124, -50, -51, -52, -54, -66, -67, -68, -70, -73, -74, -125, -76, -77, -88, -89, -90, -91, -92, -94, -100 & -116

Thank you, Terrie Fudge *ESC Lab Sciences* Technical Service Rep. Direct: 615-773-9674 Toll Free: 800-767-5859 + ext (9674) Email: tfudge@esclabsciences.com

	· · · · ·	Billing information:		Analysi	s/Conta	iner/Presen	vative		Chain of Custody
MACTEC - Louisvi 13425 Eastpoint Center		MACTEC AP Processing 1105 Lakewood, Ste. 300							Page of
Louisville,KY 40223		Alpharetta,GA 30009			res				ESC SICILE IN CITES
Report to: Mr. Scott Kelly Project	is Ho_	Email: tskelly@mactec.com			-NoP			Λ	12065 Lebanon Road Mt. Juliet, TN 37122
Description: RBTC-500 VAC Leite	Client Project #:	Collected Lowisville, K	2		8ozClr-NoPres				Phon e: (800) 767-5859 Phone: (615) 758-5858
Phone: (502) 253-2500 FAX: (502) 253-2501 Colleged by (grint):	6680-08-9635	MACTECLOU-RBTC500	oPres	500mIHDPE-HNO3	HIVE		Å		Fax: (615) 758-5859
Collegted by (signature)	Rush? (Lab M Same Day		DPE-N	HDPE	HARC				Acctnum MACTECLO
Michael Yaulh immediately Packed on ice N _ Y _	Next Day. Two Day		5 250mlHDPE-NoPres	<u></u>	C6,CR6SS+ARCHIVE		:		Template/Prelogin T67470/ P334302 Cooler # 93016 MM6 Shipped Via: FedEX Standard
Sample ID	Comp/Grab Ma	rix* Depth Date Time	Cntrs US	Pb,	ĥ	M			Remarks/Contaminant Sample # (lab only)
SB-9(10-20)	SS SS	0-20 10/4/0/4/0			X X				L482930-28
27-10(0-2) R-10(0-2)		2-3- 1435	1		X				<u> </u>
58-10 (5-10)		670 448	$-\frac{1}{1}$		$\frac{\mathbf{X}}{\mathbf{X}}$				L485755-09 32
94-10 (10-20) (2-1) (0-2)	SS SS	0-20 150			X	1 1	_, <u> </u>		
58-11 (2-52	SS	2-5 55			X X	/			time = 1513 por label - 10-34 (14) -11 34
So-11 (570)	<u> </u>	540 4520	I		x] /				-12 36
Mather SS - Soil GW - Groundwater WW - Remarks: Samples to be HELD for 90		ing Water OT - Other					рН		Temp
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۰ <u>۰</u>		Kenn Walson	<u> </u>	_		8/10	Time: 09	60_	pH Checked: NCF;

MACTEC - Louisv		Billing	g information	1: 1:			7-7	Analy	sis/Cor	tainer	/Prese	rvativ	e	
13425 Eastpoint Center		te. 122 1105 Lakewood, Ste. 300												Chain of Custody Page of
Louisville,KY 40223	2	Ì	haretta,(FSC
Report to: Mr. Scott Kelly Project Description: RBTC-500 VAC Leit Phone: (502) 253-2500 AX: (502) 253-2501	Client Project #	Emaj	tske City/State Collected Lab Proj	ect#	ille, K	/		5	8 8 ozClr-NoPres					L+A+B S+C+F+E+N+C+E+S 12065 Lebanon Road Mt. Juliet, TN 37122 Phone: (800) 767-5859 Phone: (615) 758-5858 Phone: (615) 758-5858
Collected by (oright) Collected by (oright) Collected by (orignature) Collected by (orignature) MUCLAUL Caudiel	6680-08-9635 Sile/Facility ID#: Rush? (Lab	MUST Be No	P.O.#	2010136			PE-NoPre	OPE-HNO	ARCHIVE		X		:	Fax: (615) 758-5859
Immediately Packed on ice N _ Y Sample ID	Same Day		0%)%	Email?		No. of Cntrs	CR6 250mlHDPE-NoPres	Cr 500m1HDPE-HNO3	C6,CR6SS+					Acctnum MACTECLO (Jab use only) Template/Prelogin T67470/P334302 Cooler # 930/0000
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		k	em	WnDo				:	Date:			194 194		pH Checked. NCF. NO

MACTEC Lanin		Billi	ing informatio	n:	<u> </u>	<u></u>	<u> </u>	nalys	is/Con	tainer	/Pres	ervati	/e		
MACTEC - Louisvi 13425 Eastpoint Center Louisville,KY 40223		2 A		sing wood, Ste GA 30009						-	2 				Chain of Custody Pageof
Report to: Mr. Scott Kelly Project Description: RBTC-500 VAC - Laite Phone. (502) 253-2500 AX: (502) 253-2501 Collected by (phrt): Aff Chall Muchall Additional Muchall	Client Project #: 6680-08-9635 Site/Facility ID#: Rush? (L Next Day. Two Day.	ab MUST Be N	tska Collected Lab Pro MAC P.O.#: Votified) 200% 100% 50%	ais'	1/e, Ke -RBTC50 38 9/30 Its Necded	No.	CR6 250mlHDPE-NoPres	Cr 500mlHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE &ozClr-NoPres						L:A:B S-C:1:E:N-C:E:S 12065 Lebanon Road Mt. Juliet, TN 37122 Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859 Acctnum MACTECLO Template/Prelogin T67470/ P334302 Cooler #: 0/30/70/04
Sample ID SB-15(0-2) SB-15(5-10) SB-15(5-10) SB-16(2-5) SB-16(5-10) SB-16(5-1	Comp/Grab	Matrix* K SS Z SS Z	Depth D-2 			of Cnirs I I I I I I I I I I	CR62	Pb.	90 ^{°Ce} XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						Shipped Via: FedEX Standard Remarks/Contaminant Sample # (lab only) L485755-17 L48243-46 47 48 47 48 -18 58 -19 54 51 54
Malrix SS - Soil GW - Groundwater WW - V Remarks: Samples to be HELD for 90	VasteWater DW - DAYS after and	Drinking Water alysis.		by: (Signature			-		7				·		Temp
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		Billing in	formation:				Ana	lysis/Co	ntaine	r/Pres	ervativ	e		- Chain of Custody
MACTEC - Louisvil 13425 Eastpoint Center I Louisville,KY 40223		AP F 1105	CTEC Processing Lakewoo aretta,GA	od, Ste. 300				es		·** .		· · · · · · · · · · · · · · · · · · ·	/	Page_or_
Report to: Mr. Scott Kelly	<u> </u>	Emait	tekelly/	@mactec.co	<u> </u>			VoPr		· · .		. •	\langle	L-A-B S-C-I-E-N-C-E-S 12065 Lebanon Road
Project Description RBTC-500 VAC - Leitch	field, KY	I		uisville				8ozClr-NoPres				/		Mt. Juliet, TN 37322 Phone: (800) 767-5859
Phone: (502) 253-2500 FAX: (502) 253-2501	Client Project #: 6680-08-9635		Lab Project		<u></u>		NO2		ļ	1		/		Phone: (615) 758-5858 Fax: (615) 758-5859
Collected by (post):	Site/Facility ID#;		P 0.#: 2()1013638 9/.	30			SCH 12			$\langle \rangle$	•		
Collected by (signifure):	Rush? (Lab Ml Same Day Next Day Two Day Three Day		fied) Da %	ail? <u>No</u> X	Yes	Na. 17	Ph. Cr 500m1HDPE-NoPres							Acctnum MACTECLOU ^[]ab use only] Template/Prelogin T67470' P334302 Cooler #: 9 30 0 M6 Shipped Via: FedEX Standard
Sample ID	Comp/Grab Mat	rix" De	epth	Date Ti	me	Contrs E	S a	Pb,0		$\left \right $		 		
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5B-17(2-5)	SS	2-	5	A	5	1	\square	X	1-1			. 7. 7		Sr 57
-57-71(5-10)			10	A	10	1		X	17			:		St IG
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- SB-18 (0-2)_	SS	0-	2	10	15	1		X	††-	····				CG-CD-
34-18(2-32		2	-3	10	20	1			11					59-64
515-18 (5-10)	<u></u>	5-	10	100	23	1								60 62-
SB-18(10-26)		10-	20	Y VO	50	1		X	l					61 63
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	and unaryo	····				-					Fło	w		Other
Relinquished by (Signature)	a 10/1001	Do	Received by Received by					छ ग	Fedi Fedi	Ex 🗐 Ca	ourier Bottle	D. As Rec		
Relinquished by: (Spinature)	Date:			b by: (Signature	a)	<u>-</u>			<u> </u>		Time O C	40 110	· 	COC Seal Intact: Y N WA pH Checked: NCF: JO

MACTEC - Louisv	- HA KV	Billing information:		Analysis/Cont	ainer/Preservative	Chain of Custody
13425 Eastpoint Center Louisville,KY 40223		MACTEC AP Processing 1105 Lakewood, Ste. 300 Alpharetta,GA 30009				Page _ of _
Report to: Mr. Scott Kelly Project	······································	Email: tskelly@mactec.com	n	8ozClr-NoPres		LIAIB SICILEINICIEIS 12065 Lebanon Road ML Juliet, TN 37122
Pescription: RBTC-500 VAC Leitt	nield, KY	Collected airsnille	V	U C		
Phone: (502) 253-2500 FAX: (502) 253-2501	Clent Project #: / 6680-08-9635	Lab Project # MACTECLOU-RBT				Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859
Collected by (print)	Afte/Facility ID#:	P.O.#	do	E		
Collected by (signature) THUCKUL Faulth immediately Packed on ice N	Rush? (Lab) Same Day Next Day Two Day Three Day		vied IdOHIW05	Pb, Cr 500mIHDPE-HNO3 Pb,C6,CR6SS+ARCHIVE		Acctnum MACTECLO(^{[ab use only}) Template/Prelogin T67470/ P334392 Cooler #: 0/ 20/00/00/00
Sample ID		alrix Depth Date Tirr	res of 92	C C		Shipped Via: FedEX Standard
SB-19(0-2)	SS SS					Remarks/Contaminant Sample # (lab only)
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<u>\$B-17(5-10)</u>	S	5-10 110	3			-63-65
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Matrix: 65-Soil GW-Groundwater WW-	WasteWater DW - Drin	king Waler OT - Olher	, , , , , , , , , ,	- t t	рН	Temp
emarks: Samples to be HELD for 90	DAYS after analy:	sis.				
			-		Flow	Other
Reinquene by (Signature) Reinquished by Schuller Reinquished by Schuller	Date: 10/1/10/	Time: Received by: (Signature)		Same F	edEx Courier	Condition: (lab use only)
	Dete.	Time: Received by: (Stanature)		Temp	Bottles Received	
Relinquished by (Staneture)	Date.	Time. Received for lab by: (Signature)		A~ Date:	b 140	COC Seal Intact: Y_N_NA
		Ken levolon	· . :	10/	8/10 Time: 0900	UNO 1

MACTEC I · ·		Billing	information:			<u> </u>		Analys	is/Contai	iner/Pre	<u>servati</u>	ve		Chain of Custody
MACTEC - Louisvi 13425 Eastpoint Center Louisville,KY 40223		2 AP 110	CTEC Processir 5 Lakewo haretta,G/	od, Ste					cs					Page_of_
Report to: Mr. Scott Kelly		Emailt					-		loPr				ł	L: A: B S: C-T-E-N-C-E-S 12065 Lebanon Road
Project Description. RBTC-500 VAC			City/State	@mact		<u> </u>	- ·			4. 		1		ML Juliet, TN 37122
Whone: (502) 253-2500 AX: (502) 253-2501 iollected by (print): (1) (1)	Chent Project #: 6680-08-9635 Site/Facility ID#:	· · · · · · · · · · · · · · · · · · ·	Collected Lab Project MACT	xl #	RBTC50	6 0	loPres	-HNO3	HIVE &ozClr-NoPres					Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859
- <u>MICHAELOTCAUM</u> ollected by (signature): MUCHAELOCAUM amediately acked on Ice N Y	Same Day Next Day Two Day	ab MUST Be Not 	2 ilfied) E 1% E % E	nail? _N	Its Needed	No.	CR6 250mlHDPE-NoPres	500m1HDPE-HNO3	Pb,C6,CR6SS+ARCHIVE	TN				Acctnum MACTECLO (lab use only) Template/Prelogin T67470/ P334302 Cooler #: 01201000000000000000000000000000000000
Sample ID	Comp/Grab	Matrix* D	epth	AX?N Date	• <u>Yes</u> Time	of Cntrs	CR6 2:	Pb, Cr	Pb,C6,	Ø				Shipped Via: FedEX Standard
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52-23 /2-22		ss p	70		50S	1	-1-1	_ + +	X	_ <u>/</u>	-			27 74 46
57-23 (2-5)		ss 2-			1520	+	┝┢┤		<u>x</u>				[75 77
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B-23/5-10/45D)		ss 5-	10	V -4	520		\mathbf{A}^+	• E I	$\frac{\mathbf{x}}{\mathbf{x}}$	-	<u> </u>	·		77-78-94
atrix SS - Soil GW - Groundwater WW -	Monte Aleter OW		e <u> !-</u>		170			<u> </u>	<u>~</u> //					77_¥4
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MACTEC Louisvi		Billing Information:		Analysi	s/Çon	tainer/Prese	rvative	Chain of Custody
MACTEC - Louisvi 13425 Eastpoint Center Louisville,KY 40223		MACTEC AP Processing 1105 Lakewood, Ste. 300 Alpharetta,GA 30009						Page_of_
Report to. Mr. Scott Kelly Project Description: RBTC-500 VAC - Leitel Phone: (502) 253-2500 AX: (502) 253-2501 Collected by (krint). Image: Collected by (krint). Image: Collected by (krint). Collected by (krint). Image: Collected by (krint). Image: Collected by (krint). Collected by (krint). Image: Collected by (krint). Image: Collected by (krint). Collected by (krint). Image: Collected by (krint). Image: Collected by (krint). Collected by (krint). Image: Collected by (krint). Image: Collected by (krint). Collected by (krint). Image: Collected by (krint). Image: Collected by (krint). Collected by (krint). Image: Collected by (krint). Image: Collected by (krint). Collected by (krint). Image: Collected by (krint). Image: Collected by (krint). Collected by (krint). Image: Collected by (krint). Image: Collected by (krint). Multicle Image: Collected by (krint). Image: Collected by (krint). Multicle Image: Collected by (krint). Image: Collected by (krint). Multicle Image: Collected by (krint). Image: Collected by (krint).	Client Project #: 6680-08-9635 Site/Facility ID#: Rush? (Lab MUST Same Day. Next Day. Two Day. Three Day.		1 61	Cr 500mlHDPE-HNO3	6,CR6SS+ARCHIVE 8ozClr-NoPres			L-A-B S-C-1-E-N-C-E-S 12065 Lebanon Road Mt. Juliet, TN 37122 Phone: (800) 767-5859 Phone: (615) 758-5858 Fax: (615) 758-5859 Accinum: MACTECLO Template/Prelogin T67470/ P334302 Cooler #: 030/0-WX
Sample 10 SB-27(Comp/Grab Matrix* SS SS SS SS SS SS SS SS SS S	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	CR6 su	Pb, C				Shipped Via: "FedEX Standard Remarks/Contaminant Sample # (lab only) $C4782930 - 94$ C4782930 - 94 G1 99 - 94 32 95 94 32 95 94 32 95 94 34 92 32 95 94 G4 98 G5 94 98 G5 94 98 G5 94 98 G5 94 98
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MACTEC Lautant		Ę	Billing information	bn:		<u> </u>	-	<u>Analys</u>	is/Con	tainer/	<u> Prese</u>	rvativ	e		Chain of Custody
MACTEC - Louisvi 13425 Eastpoint Center Louisville,KY 40223			MACTEC AP Proces 1105 Lake Alpharetta	ewood, S					es					/	Page_of_
Report to: Mr. Scott Kelly			Email tsk	elly@ma	ctec.com	<u> </u>	-		8ozClr-NoPres					, 	L·A·B S·C·I·E·N·C·E·S 12065 Lebanon Road Mt Juliet, TN 37122
Project Description: RBTC-500 VAC - Leite	hfield, Ky	;_	City/Stat Collected	AUS	le V	4.,			szClr-						Phone: (800) 767-5859
Phone: (502) 253-2500 AX: (502) 253-2501	Client Project #: 6680-08-963	5		roject # CTECLO	U-RBTC5	₩ D0	res	N03					<i>(</i> .		Phone: (615) 758-5858 Fax: (615) 758-5859
ollected by lound are Taul	Bre/Facility ID#;		P.O,#;	201013	638 9/30		No]	H-H	RCH				•		
nmediately acked on Ice N _ Y _	Same Day	Lab MUST B	200% 100% 50%	Date Re	sults Needed	No.	CR6 250mlHDPE-NoPres	Cr 500mtHDPE-HNO3	Pb,C6,CR6SS+ARCHIVE						Acctnum MACTECLOU ^(ab use only) Template/Pretogin T67470 P334302- Cooler #: 9 30 (0 MM)
Sample ID	Comp/Grab	Matrix*	Depth	Date	_No _Yes	of Cntrs	CR6	Pb, C	Pb,C6		X				Shipped Via: FedEX Standard
- GB-50 (2-6MS)	C	SS	25	Voltell	a B	1-	X	\mathbf{X}	X	$-\lambda^{\mu}$	\mathbb{N}				Remarks/Contaminant Sample # (lab only)
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APPENDIX E

LABORATORY REPORTS WASTE CHARACTERIZATION SAMPLES



YOUR LAB OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223

Report Summary

Monday October 25, 2010

Report Number: L484359 Samples Received: 10/16/10 Client Project: 6680-08-9635

Description: RBTC-500 VAC

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

T. Alan Harvill , ESC Representative

Laboratory Certification Numbers

Entire Report Reviewed By:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487 GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140 NJ - TN002,NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233 AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A, TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences. Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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EVAN B SICILIE OF CHOIC							12065 Lebanon Mt. Juliet, (615) 758-58 1-800-767-58 Fax (615) 75 Tax I.D. 62-0 Est. 1970	IN 37122 58 59 8-5859
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cer Louisville, KY 4022	nter Dr. Ste. 122	REI	PORT OF ANAL	YSIS	Oc	tober 25	,2010	
Date Received : Description : Sample ID : Collected By :	October 16, 201 RBTC-500 VAC Loui INSIDE FLOOR PILE Scott Kelly	sville Ky	Ĭ		Si	C Sample te ID : oject :	# : L48435	
Collection Date : Parameter	10/15/10 12:25	Result	Det. Limit	Units	Limit	Method	Date/Time	By Dil
TCLP Extraction		-				1311	10/20/10 071	5 MVE 1
Mercury		BDL	0.0010	mg/l	0.20	7470A	10/21/10 100	5 WC 1
Arsenic Barium Cadmium Chromium Lead Selenium Silver		BDL 0.22 BDL 0.084 BDL 0.074 BDL	0.050 0.15 0.050 0.050 0.050 0.050 0.050	mg/l mg/l mg/l mg/l mg/l mg/l	5.0 100 1.0 5.0 5.0 1.0 5.0	6010B 6010B 6010B 6010B 6010B 6010B 6010B	10/23/10 114 10/23/10 114 10/23/10 114 10/23/10 114 10/23/10 114 10/23/10 114 10/23/10 114	7 ICO 1 7 ICO 1 7 ICO 1 7 ICO 1 7 ICO 1 7 ICO 1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/25/10 09:46 Printed: 10/25/10 11:00

Page 2 of 9

LAND SICILIE OF CHOIC							12065 Lebanon Mt. Juliet, TM (615) 758-585 1-800-767-585 Fax (615) 758 Tax I.D. 62-0 Est. 1970	N 37122 8 9 -5859
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cer Louisville, KY 402:	e, KY nter Dr. Ste. 122	REI	PORT OF ANAL	YSIS	Oc	tober 25		
Date Received : Description : Sample ID : Collected By : Collection Date :	RBTC-500 VAC Loui OUTSIDE CONCRETE	sville Ky	Z		Si	C Sample te ID : oject :	# : L484359 6680-08-9635	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By Dil
TCLP Extraction		-				1311	10/20/10 0715	MVE 1
Mercury		BDL	0.0010	mg/l	0.20	7470A	10/21/10 1038	WC 1
Arsenic Barium Cadmium Chromium Lead Selenium Silver		BDL 0.55 BDL 0.65 BDL BDL BDL BDL	0.25 0.37 0.050 0.050 0.25 0.050 0.050	mg/l mg/l mg/l mg/l mg/l mg/l	5.0 100 1.0 5.0 5.0 1.0 5.0	6010B 6010B 6010B 6010B 6010B 6010B 6010B	10/23/10 1428 10/23/10 1014 10/23/10 1014 10/23/10 1014 10/23/10 1428 10/24/10 2214 10/23/10 1014	ICO 1 ICO 1 ICO 1 ICO 5 ICO 1

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/25/10 09:46 Printed: 10/25/10 11:00

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Attachment A List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L484359-02	WG504438	SAMP	Arsenic	R1440829	0
	WG504438	SAMP	Barium	R1440829	B2
	WG504438	SAMP	Lead	R1440829	O

Attachment B Explanation of QC Qualifier Codes

Qualifier	Meaning
B2	(ESC) - The detection limit has been elevated due to blank contamination.
0	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.
- Surrogate Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L484359

October 25, 2010

		Laborator				
Analyte	Result	Units	% Rec	Limit	Batch	Date Analyze
Mercury	< .0002	mg/l			WG504328	10/21/10 10
Mercury	< .0002	mg/l			WG504329	10/21/10 09
Arsenic Barium	< .05 < .15	mg/l				10/23/10 14 10/23/10 14
Cadmium	< .05	mg/l mg/l			WG504410	10/23/10 14
Chromium Lead	< .05 < .05	mg/l mg/l				10/23/10 14 10/23/10 14
Selenium	< .05	mg/l				10/23/10 14
Silver	< .05	mg/l			WG504410	10/23/10 14
Arsenic	< .05	mg/l				10/23/10 09
Barium Cadmium	< .37 < .05	mg/l mg/l				10/23/10 09 10/23/10 09
Chromium	< .05	mg/l				10/23/10 09
Lead Silver	< .05 < .05	mg/l mg/l				10/23/10 09 10/23/10 09
Selenium	< .05	mg/l			WG504438	10/24/10 21
		Dupli				
Analyte	Units	Result Du	plicate RPI	D Limit	Ref Sam	p Batch

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Mercury	mg/l	0	0	0	20	L484019-16	WG504329
Mercury	mg/l	0	0	0	20	L484359-02	WG504328
Barium	mg/l	0.550	0.570	3.39	20	L484154-28	WG504438
Cadmium	mg/l	0	0	0	20	L484154-28	WG504438
Chromium	mg/l	0	0	0	20	L484154-28	WG504438
Silver	mg/l	0	0	0	20	L484154-28	WG504438
Arsenic	mg/l	0.600	0.581	4.05	20	L484489-31	WG504410
Barium	mg/l	0	0.0433	NA	20	L484489-31	WG504410
Cadmium	mg/l	0	0	0	20	L484489-31	WG504410
Chromium	mg/l	0	0.00240	NA	20	L484489-31	WG504410
Lead	mg/l	0	0	0	20	L484489-31	WG504410
Selenium	mg/l	0.100	0.0950	10.0	20	L484489-31	WG504410
Silver	mg/l	0	0	0	20	L484489-31	WG504410
Arsenic	mg/l	0	0	0	20	L484154-28	WG504438
Lead	mg/l	0	0	0	20	L484154-28	WG504438
Selenium	mg/l	0	0	0	20	L484154-28	WG504438
		Laborato	ry Control Sa	mple			
Analyte	Units	Known V	-	esult	% Rec	Limit	Batch
Mercury	mg/l	.003	0.0	0283	94.3	85-115	WG504328
1			0.0				
Mercury	mg/l	.003	0.0	0263	87.7	85-115	WG504329

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L484359

October 25, 2010

		Labora	tory Contro	ol Sampl	.e			
Analyte	Units	Known	-	Resu		% Rec	Limit	Batch
Arsenic	mg/l	1.13		1.03		91.2	85-115	WG50443
Barium	mg/l	1.13		1.21		107.	85-115	WG50443
Cadmium	mg/l	1.13		1.07		94.7	85-115	WG50443
Chromium	mg/l	1.13		1.09		96.5	85-115	WG50443
Lead	mg/l	1.13		1.10		97.3	85-115	WG50443
Silver	mg/l	1.13		1.08		95.6	85-115	WG50443
Arsenic	mg/l	1.13		1.01		89.4	85-115	WG50441
Barium	mg/l	1.13		1.09		96.5	85-115	WG50441
Cadmium	mg/l	1.13		1.11		98.2	85-115	WG50441
Chromium	mg/l	1.13		1.08		95.6	85-115	WG50441
Lead	mg/l	1.13		1.13		100.	85-115	WG50441
Selenium	mg/l	1.13		1.12		99.1	85-115	WG50441
Gilver	mg/1	1.13		1.14		101.	85-115	WG50441
Selenium	mg/l	1.13		1.11		98.2	85-115	WG50443
	5,							
Analyte	Units	MS Res	Matrix Spil Ref Res	ke TV	% Rec	Limit	Ref Samp	Batch
haryce	011105	MB RCB	REL REB	τv	8 1.00	Dimic	Ker bamp	bacch
lercury	mg/l	0.00282	0	.003	94.0	70-130	L484019-16	WG50432
lercury	mg/l	0.00286	0	.003	95.3	70-130	L484359-02	WG50432
Mercury	mg/l	0.00281	0	.003	93.7	70-130	L484151-01	WG50432
Barium	mg/l	1.60	0.570	1.13	91.2	75-125	L484154-28	WG50443
Cadmium	mg/l	1.08	0	1.13	95.6	75-125	L484154-28	WG50443
Chromium	mg/l	1.12	0	1.13	99.1	75-125	L484154-28	WG50443
Silver	mg/l	1.09	0	1.13	96.5	75-125	L484154-28	WG50443
Arsenic	mg/l	1.02	0	1.13	90.3	75-125	L484352-03	WG50441
Barium	mg/l	1.10	0	1.13	97.3	75-125	L484352-03	WG50441
Zadmium	mg/l	1.09	0	1.13	96.5	75-125	L484352-03	WG50441
Chromium	mg/l	1.09	0	1.13	96.5	75-125	L484352-03	WG50441
Lead	mg/1	1.11	0	1.13	98.2	75-125	L484352-03	WG50441
Selenium	mg/1	1.05	0	1.13	92.9	75-125	L484352-03	WG50441
Silver	mg/1	0.405	0	1.13	35.8*	75-125	L484352-03	WG50441
Arsenic	mg/1	1.60	0.581	1.13	90.2	75-125	L484489-31	WG50441
Barium	mg/1	1.07	0.0433	1.13	90.8	75-125	L484489-31	WG50441
Cadmium	mg/1	1.05	0	1.13	92.9	75-125	L484489-31	WG50441
Chromium	mg/1	1.00	0.00240	1.13	88.3	75-125	L484489-31	WG50441
Lead	mg/1	1.05	0	1.13	92.9	75-125	L484489-31	WG50441
Gelenium	mg/1	1.10	0.0950	1.13	88.9	75-125	L484489-31	WG50441
Silver	mg/l	0.924	0	1.13	81.8	75-125	L484489-31	WG50441
Arsenic	mg/l	0.940	0	.226	83.2	75-125	L484154-28	WG50443
Lead	mg/l	1.19	0	.226	105.	75-125	L484154-28 L484154-28	WG50443 WG50443
	-		0					WG50443 WG50443
Selenium	mg/l	1.17	U	1.13	104.	75-125	L484154-28	WG50

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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ESC

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L484359

October 25, 2010

Analyte	Units	Mat MSD	rix Spike Ref	Duplicate %Rec	Limit	RPD	T.imi	t Ref Samp	Batch
mary cc	011105	HIGD	REI	ince	BIUIC	ICI D	DIMI	e nei bamp	Daten
Mercury	mg/l	0.00271	0.00282	90.3	70-130	3.98	20	L484019-16	WG50432
Mercury	mg/l	0.00285	0.00286	95.0	70-130	0.350	20	L484359-02	WG50432
Mercury	mg/l	0.00290	0.00281	96.7	70-130	3.15	20	L484151-01	WG50432
Arsenic	mg/l	1.05	1.02	92.9	75-125	2.90	20	L484352-03	WG50441
Barium	mg/l	1.11	1.10	98.2	75-125	0.905	20	L484352-03	WG50441
Cadmium	mg/l	1.09	1.09	96.5	75-125	0	20	L484352-03	WG50441
Chromium	mg/l	1.12	1.09	99.1	75-125	2.71	20	L484352-03	WG50441
Lead	mg/l	1.13	1.11	100.	75-125	1.79	20	L484352-03	WG50441
Selenium	mg/l	1.07	1.05	94.7	75-125	1.89	20	L484352-03	WG50441
Silver	mg/l	0.408	0.405	36.1*	75-125	0.738	20	L484352-03	WG50441
Arsenic	mg/l	1.71	1.60	99.9	75-125	6.65	20	L484489-31	WG50441
Barium	mg/l	1.13	1.07	96.2	75-125	5.45	20	L484489-31	WG50441
Cadmium	mg/l	1.12	1.05	99.1	75-125	6.45	20	L484489-31	WG50441
Chromium	mg/l	1.08	1.00	95.4	75-125	7.69	20	L484489-31	WG50441
Lead	mg/l	1.14	1.05	101.	75-125	8.22	20	L484489-31	WG50441
Selenium	mg/l	1.17	1.10	95.1	75-125	6.17	20	L484489-31	WG50441
Silver	mg/l	1.11	0.924	98.2	75-125	18.3	20	L484489-31	WG50441
Barium	mg/l	1.64	1.60	94.7	75-125	2.47	20	L484154-28	WG50443
Cadmium	mg/l	1.11	1.08	98.2	75-125	2.74	20	L484154-28	WG50443
Chromium	mg/l	1.12	1.12	99.1	75-125	0	20	L484154-28	WG50443
Silver	mg/l	1.14	1.09	101.	75-125	4.48	20	L484154-28	WG50443
Arsenic	mg/l	0.876	0.940	77.5	75-125	7.05	20	L484154-28	WG50443
Lead	mg/l	1.17	1.19	104.	75-125	1.69	20	L484154-28	WG50443
Selenium	mg/l	1.20	1.17	106.	75-125	2.53	20	L484154-28	WG50443

Batch number /Run number / Sample number cross reference

WG504116: R1436949: L484359-01 02 WG504329: R1438489: L484359-01 WG504328: R1438492: L484359-02 WG504438: R1440829: L484359-02 WG504410: R1440831: L484359-01

* * Calculations are performed prior to rounding of reported values .
 * Performance of this Analyte is outside of established criteria.
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Page 8 of 9



YOUR LAB OF CHOICE MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

Quality Assurance Report Level II

L484359

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

> Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier. 12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

October 25, 2010

MACTEC - Louis			Billing	Informat	ion:			<i>+</i>	halysis/Co	ontainer/P	reservative	C050 Chain of Custo	ody
				MACTEC AP Processing 1105 Lakewood, Suite 300									<u> </u>
13425 Eastpoint	Centr	е	Alpl	haretta,	GA 30009								,
Drive, Suite 122			Report t						10			L-A-B S-C-I-E-N-C-E	5
Louisville, KY 40	223				Scott	Kelly				4		12065 Lebanon Road Mt. Juliet, TN 37122	
-		<u> </u>	Email to		tskelly@ma	actec.com							
Project RBTC-500 VA	C - Louisville	, KY		ty Sate allected	Louisy	ville, KY						Phone: (800) 767-5859 Phone: (615) 758-5858	
Phone: (502) 253-2500 FAX: (502) 253-2501	Client Project 6680-	#. 08-963:		ESC Key	MACTEC	LOU-RBT	C500					Fax: (615) 758-5859	
Collected by: Scott Kelly	Site/Facility IC	#:		P.O.#:	2010	13638		stals		1 6. 1913			
Collected by (signature):	S	ab MUST ame Day. ext Day wo Day			Date Resul		No	8 RCRA Metals				CoCode (lab use on Template/Prelogin	V)
Immediately Packed on Ice N Y X		ree Day		25%	FAX?t	NoYes	Colis					Shippet Via:	
Sample ID	Comp/Grab	Matri	x- 1	Depth	Date	Time		JCLP				Remarks/Contaminant Sample # (lab on	1ly)
Inside Floor Pile	Comp	ss		-	10-15-10	1225	1	X		-		L48435901	2.5 2.5
Outside Concrete Pile	Comp	SS		-	10-15-10	1235	1	x		-		DZ South angle	
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······································									- 48-				<u></u>
*Matrix: SS - Soil/Solid GW - Grou	indwater WW	- WasteV	vater D	W - Drink	ting Water O	T - Other	<u> </u>			<u> </u>	1 <u>1.201</u> pH		14 - _V
Remarks													
Relinguished by: (Signat(fg)	Date:	 т	me:	Receive	ed b <u>y: (</u> Signat				8734 Samp	1 706 les return	1382 Flow ^{ed via:} □UPS	Other Condition: (lab use only)	
- Jut My _	10-15	5-10	1633	<u> </u>	Fen				S Fea	∃Ex □Cα	ourier	Ok	C
Relinquished by: (Signation of the second seco	Date:		me:	Receive	ed by: (Signat				Temp 2.	g e	Bottles Receiv	gd CoC Seals Image Y N	NA
Relinquished by: (Signa 22)	Date:	Т	me:	Receiv	the for leb by	r: (Signatur Maci		6	Date		Time:	ç pH-Checked: NCF: 2	



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Tax I.D. 62-0814289

Est. 1970

Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223

Report Summary

Tuesday October 12, 2010

Report Number: L481739 Samples Received: 10/01/10 Client Project: 6680-08-9635

Description: RBTC 500 VAC Louisville

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Luchi Auto

Leslie Newton , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487 GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140 NJ - TN002,NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233 AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A, TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences. Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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Est. 1970

Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122	RE.	PORT OF ANAI	JYSIS	Oc	october 12, 2010					
Louisville, KY 40223										
Date Received : October 01, 20 Description : RBTC 500 VAC Lou				ES	C Sample	e # : L481739	0-01			
Sample ID : DRUM 1					te ID :					
Collected By : Scott Kelly Collection Date : 09/30/10 13:15				Pr	oject :	6680-08-9635)			
Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	Ву	Dil		
TCLP Extraction	-				1311	10/03/10 0808	MVE	1		
Mercury	BDL	0.0010	mg/l	0.20	7470A	10/05/10 1937	WC	1		
Arsenic Barium Cadmium Chromium Lead Selenium Silver	BDL 3.4 BDL BDL BDL 0.45 BDL	0.050 0.15 0.050 0.050 0.050 0.050 0.050	mg/l mg/l mg/l mg/l mg/l mg/l	5.0 100 1.0 5.0 5.0 1.0 5.0	6010B 6010B 6010B 6010B 6010B 6010B 6010B	10/04/10 0122 10/04/10 0122 10/04/10 0122 10/04/10 0122 10/04/10 0122 10/04/10 0122 10/04/10 0122	ALT ALT ALT ALT ALT	1 1 1 1		
TCLP ZHE Extraction	-				1311	10/05/10 0910	LJN	1		
TCLP Volatiles Benzene Carbon tetrachloride Chlorobenzene Chloroform 1,2-Dichloroethane 1,1-Dichloroethene 2-Butanone (MEK) Tetrachloroethene Trichloroethene Vinyl chloride Surrogate Recovery Toluene-d8 Dibromofluoromethane a,a,a-Trifluorotoluene 4-Bromofluorobenzene	BDL BDL BDL BDL BDL BDL BDL BDL 106. 101. 102. 95.6	$\begin{array}{c} 0.050\\ 0.050\\ 0.25\\ 0.050\\ 0.050\\ 0.50\\ 0.50\\ 0.050\\ 0.050\\ 0.050\\ 0.050\\ 0.050\\ 0.050\\ 0.050\\ \end{array}$	<pre>mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</pre>	$\begin{array}{c} 0.50\\ 0.50\\ 100\\ 6.0\\ 0.50\\ 0.70\\ 200\\ 0.70\\ 0.20\\ 114.\\ 125.\\ 114.\\ 128.\\ \end{array}$	8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B	10/06/10 0535 10/06/10 0535	DP DP DP DP DP DP DP DP DP DP DP DP DP	1 1 1 1 1 1 1 1 1 1 1 1		
TCLP Semi-Volatiles 1,4-Dichlorobenzene 2,4-Dinitrotoluene Hexachlorobenzene Hexachloroethane Nitrobenzene Pyridine 3&4-Methyl Phenol 2-Methylphenol Pentachlorophenol 2,4,5-Trichlorophenol	BDL BDL BDL BDL BDL BDL BDL BDL BDL BDL	$\begin{array}{c} 0.10\\$	<pre>mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</pre>	$\begin{array}{c} 7.5\\ 0.13\\ 0.50\\ 3.0\\ 2.0\\ 5.0\\ 400\\ 200\\ 100\\ 400 \end{array}$	8270C 8270C 8270C 8270C 8270C 8270C 8270C 8270C 8270C 8270C 8270C 8270C	10/08/10 1906 10/08/10 1906 10/08/10 1906 10/08/10 1906 10/08/10 1906 10/08/10 1906 10/08/10 1906 10/08/10 1906 10/08/10 1906 10/08/10 1906	JAB JAB JAB JAB JAB JAB JAB JAB JAB	1 1 1 1 1 1 1 1 1		

L481739-01 (SV8270TCLP) - Previous run also had low IS/SURR recovery. Matrix effect.

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XESC							12065 Lebanc Mt. Juliet, (615) 758-58 1-800-767-58 Fax (615) 75	TN 37122 58 59	2
L·A·B S·C·I·E·N·C·E·S							Tax I.D. 62-	0814289	
YOUR LAB OF CHOICE							Est. 1970		
Mr. Scott Kelly MACTEC – Louisville, 13425 Eastpoint Cente Louisville, KY 40223		REI	PORT OF ANAL	JYSIS	Oc	tober 12	2, 2010		
	ctober 01, 201 BTC 500 VAC Loui					C Sample	e # : L48173	9-01	
Collected By : S	RUM 1 cott Kelly 9/30/10 13:15					oject :	6680-08-963	5	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time	By D	Dil
2,4,6-Trichlorophen Surrogate Recovery 2-Fluorophenol Phenol-d5 Nitrobenzene-d5 2-Fluorobiphenyl 2,4,6-Tribromopheno p-Terphenyl-d14		BDL 0.550 0.710 34.4 79.2 25.2 106.	0.10	mg/l % Rec. % Rec. % Rec. % Rec. % Rec. % Rec.	148.		10/08/10 190 10/08/10 190 10/08/10 190 10/08/10 190 10/08/10 190 10/08/10 190 10/08/10 190	6 JAB 1 6 JAB 1 6 JAB 1 6 JAB 1 6 JAB 1	L L L L

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/11/10 17:30 Revised: 10/12/10 09:52 L481739-01 (SV8270TCLP) - Previous run also had low IS/SURR recovery. Matrix effect.

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12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPO	RT OF ANAL	YSIS	Octob	ber 12, 2010			
Date Received : October 01, 20 Description : RBTC 500 VAC Lou					Sample # :	L481739	-02	
Sample ID : EAST SHOP SUMP				Site	ID :			
Collected By : Scott Kelly Collection Date : 09/30/10 14:40				Proje	ect # : 66	80-08-96	35	
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Mercury	0.18	0.0053	0.020	mg/kg		7471	10/05/10	1
Arsenic Barium Cadmium Chromium Lead Selenium Silver	13. 1400 34. 860 700 140 98.	0.32 0.25 0.040 0.42 0.45 1.6 0.82	1.0 1.3 0.25 2.5 1.3 5.0 2.5	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg		6010B 6010B 6010B 6010B 6010B 6010B	10/04/10 10/04/10 10/04/10 10/04/10 10/04/10 10/04/10 10/04/10	5 1 5 5 5
Volatile Organics Acetone Acrylonitrile Benzene Bromobenzene Bromodichloromethane Bromodichloromethane Bromomethane n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chlorodibromomethane Chloroethane 2-Chlorotoluene 4-Chlorotoluene 1,2-Dibromo-3-Chloropropane 1,2-Dibromoethane Dibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethene trans-1,2-Dichloroethene 1,2-Dichloropropane	U U U U U U U U U U U U U U U U U U U	0.52 0.13 0.021 0.015 0.017 0.016 0.078 0.017 0.015 0.014 0.021 0.015 0.098 0.91 0.022 0.052 0.016 0.015 0.052 0.016 0.015 0.023 0.015 0.023 0.016 0.015 0.023 0.016 0.015 0.023 0.016 0.015 0.023 0.016 0.015 0.023 0.016 0.015 0.023 0.016 0.015 0.023 0.016 0.015 0.023 0.016 0.015 0.023 0.016 0.015 0.021 0.023 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026 0.021 0.026	2.5 0.50 0.050 0.050 0.050 0.25 0.050 0.050 0.050 0.050 0.25 2.5 0.25 0.25 0.13 0.050 0.	mg/kg mg/kg		8260B 8260B	10/05/10 10/05/10	50 50 50 50 50 50 50 50 50 50 50 50 50 5

U = ND (Not Detected) MDL = Minimum Detection Limit = LOD RDL = Reported Detection Limit = LOQ = PQL = EQL Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/11/10 17:30 Revised: 10/12/10 09:52 L481739-02 (SV8270BNA) - Diluted due to matrix

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12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

		REPO	ORT OF ANAL	YSIS					
Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cer					Octob	per 12, 2010			
Louisville, KY 4022									
					ESC S	Sample # :	L481739	-02	
Date Received :	October 01, 201					1 .			
Description :	RBTC 500 VAC Lou:	ısville			Site	TD :			
Sample ID :	EAST SHOP SUMP								
Collected By : Collection Date :	Scott Kelly 09/30/10 14:40				Proje	ect # : 66	80-08-96	35	
Parameter		Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
1,1-Dichloroprope	ne	U	0.017	0.050	mg/kg		8260B	10/05/10	50
1,3-Dichloropropa		U	0.019	0.050	mg/kg		8260B	10/05/10	
cis-1,3-Dichlorop		Ŭ	0.015	0.050	mg/kg		8260B	10/05/10	
trans-1,3-Dichlor		U	0.020	0.050	mg/kg		8260B	10/05/10	
2,2-Dichloropropa		U	0.018	0.050	mg/kg		8260B	10/05/10	50
Di-isopropyl ethe	er	U	0.018	0.050	mg/kg		8260B	10/05/10	
Ethylbenzene		0.036	0.016	0.050	mg/kg	J	8260B	10/05/10	
Hexachloro-1,3-bu	ltadiene	U	0.017	0.050	mg/kg		8260B	10/05/10	
Isopropylbenzene		0.023	0.017	0.050	mg/kg	J	8260B	10/05/10	
p-Isopropyltoluer	ie	0.068	0.016	0.050	mg/kg		8260B	10/05/10	
2-Butanone (MEK) Methylene Chlorid		U 0.025	0.22	0.50 0.25	mg/kg mg/kg	J	8260B 8260B	10/05/10 10/05/10	
4-Methyl-2-pentar		U.U25 U	0.024	0.25	mg/kg	U	8260B	10/05/10	
Methyl tert-butyl		U	0.018	0.050	mg/kg		8260B	10/05/10	
Naphthalene	Celler	2.2	0.014	0.25	mg/kg		8260B	10/05/10	
n-Propylbenzene		0.073	0.016	0.050	mg/kg		8260B	10/05/10	
Styrene		U	0.012	0.050	mg/kg		8260B	10/05/10	
1,1,1,2-Tetrachlo	proethane	U	0.020	0.050	mg/kg		8260B	10/05/10	
1,1,2,2-Tetrachlo	proethane	U	0.014	0.050	mg/kg		8260B	10/05/10	
1,1,2-Trichloro-1		U	0.043	0.050	mg/kg		8260B	10/05/10	
Tetrachloroethene	2	U	0.022	0.050	mg/kg		8260B	10/05/10	
Toluene		0.092	0.017	0.25	mg/kg	J	8260B	10/05/10	
1,2,3-Trichlorobe		U	0.015	0.050	mg/kg		8260B	10/05/10	
1,2,4-Trichlorobe 1,1,1-Trichloroet		U U	0.019 0.023	0.050 0.050	mg/kg		8260B 8260B	10/05/10 10/05/10	
1,1,2-Trichloroet		U	0.023	0.050	mg/kg mg/kg		8260B 8260B	10/05/10	
Trichloroethene		U	0.027	0.050	mg/kg		8260B	10/05/10	
Trichlorofluorome	thane	Ŭ	0.035	0.25	mg/kg		8260B	10/05/10	
1,2,3-Trichloropr		Ū	0.034	0.050	mg/kg		8260B	10/05/10	
1,2,4-Trimethylbe		0.52	0.017	0.050	mg/kg		8260B	10/05/10	50
1,2,3-Trimethylbe	enzene	0.29	0.016	0.050	mg/kg		8260B	10/05/10	50
1,3,5-Trimethylbe	enzene	0.18	0.015	0.050	mg/kg		8260B	10/05/10	
Vinyl chloride		U	0.026	0.050	mg/kg		8260B	10/05/10	
Xylenes, Total		0.17	0.023	0.15	mg/kg		8260B	10/05/10	50
Surrogate Recovery		101			8 D -		00007	10/05/10	5.0
Toluene-d8 Dibromofluorometh	222	101. 113.			% Rec.		8260B	10/05/10	
4-Bromofluorometr		113. 112.			% Rec. % Rec.		8260B 8260B	10/05/10 10/05/10	
Base/Neutral Extrac	clables	U	24.	33.	ma /lea	0	8270C	10/06/10	1000
Acenaphthene Acenaphthylene		UU	24. 8.7	33. 33.	mg/kg mg/kg	0	8270C 8270C	10/06/10 10/06/10	
Anthracene		U	8.7 7.4	33.	mg/kg	0	8270C 8270C	10/06/10	
		-	· • •			5		, , , , , , , , , , , , , , , , , ,	

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Reported: 10/11/10 17:30 Revised: 10/12/10 09:52 L481739-02 (SV8270BNA) - Diluted due to matrix

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12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REI	PORT OF ANAL	YSIS	Octok	per 12, 2010			
Date Received : October 01, 20 Description : RBTC 500 VAC Lou:				ESC S	Sample # :	L481739	-02	
Sample ID : EAST SHOP SUMP				Site	ID :			
Collected By : Scott Kelly Collection Date : 09/30/10 14:40				Proje	ect # : 66	80-08-96	35	
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Benzidine	U	46.	330	mg/kg	J30	8270C	10/06/10	
Benzo(a)anthracene	U	9.3	33.	mg/kg	0	8270C	10/06/10	
Benzo(b)fluoranthene	U	9.8	33.	mg/kg	0	8270C	10/06/10	
Benzo(k)fluoranthene	U	8.9	33.	mg/kg	0	8270C	10/06/10	
Benzo(g,h,i)perylene	U	9.0	33.	mg/kg	0	8270C	10/06/10	
Benzo(a)pyrene	U	8.5	33.	mg/kg	0	8270C	10/06/10	
Bis(2-chlorethoxy)methane	U	7.7	330	mg/kg	0	8270C	10/06/10	
Bis(2-chloroethyl)ether	U	12.	330	mg/kg	0	8270C	10/06/10	
Bis(2-chloroisopropyl)ether	U	8.7	330	mg/kg	0	8270C	10/06/10	
4-Bromophenyl-phenylether	U	9.2	330	mg/kg	0	8270C	10/06/10	
2-Chloronaphthalene	U	7.2	33.	mg/kg	0	8270C	10/06/10	
4-Chlorophenyl-phenylether	U	6.9	330	mg/kg	0	8270C	10/06/10	
Chrysene	U	13.	33.	mg/kg	0	8270C	10/06/10	
Dibenz(a,h)anthracene	U	6.8	33.	mg/kg	0	8270C	10/06/10	
3,3-Dichlorobenzidine	U	38.	330	mg/kg	0	8270C	10/06/10	
2,4-Dinitrotoluene	U	10.	330	mg/kg	0	8270C	10/06/10	
2,6-Dinitrotoluene	U	8.8	330	mg/kg	0	8270C	10/06/10	1000
Fluoranthene	U	11.	33.	mg/kg	0	8270C	10/06/10	
Fluorene	U	7.8	33.	mg/kg	0	8270C	10/06/10	1000
Hexachlorobenzene	U	8.3	330	mg/kg	0	8270C	10/06/10	1000
Hexachloro-1,3-butadiene	U	7.6	330	mg/kg	0	8270C	10/06/10	1000
Hexachlorocyclopentadiene	U	37.	330	mg/kg	0	8270C	10/06/10	
Hexachloroethane	U	7.4	330	mg/kg	J40	8270C	10/06/10	
Indeno(1,2,3-cd)pyrene	U	7.3	33.	mg/kg	0	8270C	10/06/10	1000
Isophorone	U	6.0	330	mg/kg	0	8270C	10/06/10	
Naphthalene	U	7.2	33.	mg/kg	0	8270C	10/06/10	
Nitrobenzene	U	7.4	330	mg/kg	0	8270C	10/06/10	
n-Nitrosodimethylamine	U	100	330	mg/kg	0	8270C	10/06/10	
n-Nitrosodiphenylamine	U	8.7	330	mg/kg	0	8270C	10/06/10	
n-Nitrosodi-n-propylamine	U	8.7	330	mg/kg	0	8270C	10/06/10	
Phenanthrene	U	8.5	33.	mg/kg	0	8270C	10/06/10	
Benzylbutyl phthalate	U	23.	330	mg/kg	0	8270C	10/06/10	
Bis(2-ethylhexyl)phthalate	U	72.	330	mg/kg	0	8270C	10/06/10	
Di-n-butyl phthalate	U	18.	330	mg/kg	0	8270C	10/06/10	1000
Diethyl phthalate	U	6.8	330	mg/kg	0	8270C	10/06/10	
Dimethyl phthalate	U	6.8	330	mg/kg	0	8270C	10/06/10	
Di-n-octyl phthalate	U	23.	330	mg/kg	0	8270C	10/06/10	
Pyrene	U	10.	33.	mg/kg	0	8270C	10/06/10	
1,2,4-Trichlorobenzene	U	6.6	330	mg/kg	0	8270C	10/06/10	1000
Acid Extractables								
4-Chloro-3-methylphenol	U	9.2	330	mg/kg	0	8270C	10/06/10	1000
2-Chlorophenol	U	6.4	330	mg/kg	J40	8270C	10/06/10	1000
2,4-Dichlorophenol	U	7.4	330	mg/kg	0	8270C	10/06/10	1000

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Reported: 10/11/10 17:30 Revised: 10/12/10 09:52 L481739-02 (SV8270BNA) - Diluted due to matrix

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Tax I.D. 62-0814289

Est. 1970

Mr. Scott Kelly MACTEC – Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223	REPOI	RT OF ANAI	LYSIS	Octob	per 12, 2010			
Date Received : October 01, 20	10			ESC S	Sample # :	L481739	-02	
Description : RBTC 500 VAC Lou				Site	ID :			
Sample ID : EAST SHOP SUMP				Proje	ect # : 66	80-08-96	35	
Collected By : Scott Kelly Collection Date : 09/30/10 14:40								
Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2,4-Dimethylphenol 4,6-Dinitro-2-methylphenol 2,4-Dinitrophenol 4-Nitrophenol Pentachlorophenol Phenol 2,4,6-Trichlorophenol Surrogate Recovery	บ บ บ บ บ บ บ	62. 65. 69. 12. 64. 48. 6.3 8.9	330 330 330 330 330 330 330 330 330	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg		8270C 8270C 8270C 8270C 8270C 8270C 8270C 8270C 8270C	10/06/10 10/06/10 10/06/10 10/06/10 10/06/10 10/06/10 10/06/10	1000 1000 1000 1000 1000 1000 1000
2-Fluorophenol Phenol-d5 Nitrobenzene-d5 2-Fluorobiphenyl 2,4,6-Tribromophenol p-Terphenyl-d14	0.00 0.00 0.00 0.00 0.00 0.00			<pre>% Rec. % Rec. % Rec. % Rec. % Rec. % Rec.</pre>	J7 J7 J7 J7 J7 J7 J7 J7	8270C 8270C 8270C 8270C 8270C 8270C	10/06/10 10/06/10 10/06/10 10/06/10 10/06/10 10/06/10	1000 1000 1000 1000 1000 1000

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Attachment A List of Analytes with QC Qualifiers

Sample Jumber	Work Group	Sample Type	Analyte	Run ID	Qualifi
481739-01	WG502030	SAMP	2-Fluorophenol	R1419251	J2
	WG502030	SAMP	Phenol-d5	R1419251	J2
481739-02	WG501535	SAMP	Ethylbenzene	R1409488	J
	WG501535	SAMP	Isopropylbenzene	R1409488	J
	WG501535	SAMP	Methylene Chloride	R1409488	J
	WG501535	SAMP	Toluene	R1409488	J
	WG501407	SAMP	Acenaphthene	R1413168	0
	WG501407	SAMP	Acenaphthylene	R1413168	0
	WG501407	SAMP	Anthracene	R1413168	Ō
	WG501407	SAMP	Benzidine	R1413168	J30
	WG501407	SAMP	Benzo(a)anthracene	R1413168	0
	WG501407	SAMP	Benzo(b)fluoranthene	R1413168	0
	WG501407	SAMP	Benzo(k)fluoranthene	R1413168	Ō
	WG501407	SAMP	Benzo(g,h,i)perylene	R1413168	0
	WG501407	SAMP	Benzo(a)pyrene	R1413168	Ō
	WG501407	SAMP	Bis(2-chlorethoxy)methane	R1413168	0
	WG501407	SAMP	Bis(2-chloroethyl)ether	R1413168	õ
	WG501407	SAMP	Bis(2-chloroisopropyl)ether	R1413168	Ō
	WG501407	SAMP	4-Bromophenyl-phenylether	R1413168	0
	WG501407	SAMP	2-Chloronaphthalene	R1413168	õ
	WG501407	SAMP	4-Chlorophenyl-phenylether	R1413168	õ
	WG501407	SAMP	Chrysene	R1413168	õ
	WG501407	SAMP	Dibenz(a,h)anthracene	R1413168	Õ
	WG501407	SAMP	3,3-Dichlorobenzidine	R1413168	õ
	WG501407	SAMP	2,4-Dinitrotoluene	R1413168	õ
	WG501407	SAMP	2,6-Dinitrotoluene	R1413168	õ
	WG501407	SAMP	Fluoranthene	R1413168	õ
	WG501407 WG501407	SAMP	Fluorene	R1413168	õ
	WG501407	SAMP	Hexachlorobenzene	R1413168	0
	WG501407	SAMP	Hexachloro-1,3-butadiene	R1413168	õ
	WG501107 WG501407	SAMP	Hexachlorocyclopentadiene	R1413168	0
	WG501407 WG501407	SAMP	Hexachloroethane	R1413168	J40
	WG501107 WG501407	SAMP	Indeno(1,2,3-cd)pyrene	R1413168	0
	WG501407 WG501407	SAMP	Isophorone	R1413168	0
	WG501407 WG501407	SAMP	Naphthalene	R1413168	0
	WG501407 WG501407	SAMP	Nitrobenzene	R1413168	0
	WG501407 WG501407	SAMP	n-Nitrosodimethylamine	R1413168	0
	WG501407 WG501407	SAMP	n-Nitrosodiphenylamine	R1413168	0
	WG501407 WG501407	SAMP	n-Nitrosodi-n-propylamine	R1413168	0
	WG501407 WG501407	SAMP	Phenanthrene	R1413168	0
	WG501407	SAMP	Benzylbutyl phthalate	R1413168	0
	WG501407	SAMP SAMP	Bis(2-ethylhexyl)phthalate	R1413168	0
	WG501407		Di-n-butyl phthalate	R1413168	0
	WG501407	SAMP	Diethyl phthalate	R1413168	0
	WG501407	SAMP	Dimethyl phthalate	R1413168	0
	WG501407	SAMP	Di-n-octyl phthalate	R1413168	0
	WG501407	SAMP	Pyrene	R1413168	0
	WG501407	SAMP	1,2,4-Trichlorobenzene	R1413168	0
	WG501407	SAMP	4-Chloro-3-methylphenol	R1413168	0
	WG501407	SAMP	2-Chlorophenol	R1413168	J40
	WG501407	SAMP	2,4-Dichlorophenol	R1413168	0
	WG501407	SAMP	2,4-Dimethylphenol	R1413168	0
	WG501407	SAMP	4,6-Dinitro-2-methylphenol	R1413168	0
	WG501407	SAMP	2,4-Dinitrophenol	R1413168	0
	WG501407	SAMP	2-Nitrophenol	R1413168	0
	WG501407	SAMP	4-Nitrophenol	R1413168	0
	WG501407	SAMP	Pentachlorophenol	R1413168	0
	WG501407	SAMP	Phenol	R1413168	0
	WG501407	SAMP	2,4,6-Trichlorophenol	R1413168	0
	WG501407	SAMP	2-Fluorophenol	R1413168	J7
	WG501407	SAMP	Phenol-d5	R1413168	J7
	WG501407	SAMP	Nitrobenzene-d5	R1413168	J7
	WG501407	SAMP	2-Fluorobiphenyl	R1413168	J7
	WG501407	SAMP	2,4,6-Tribromophenol	R1413168	J7
	WG501407	SAMP	p-Terphenyl-d14	R1413168	J7

Attachment B Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits
0	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J7	Surrogate recovery limits cannot be evaluated; surrogates were diluted out
	Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.
- Surrogate Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Page 9 of 28

Summary of Remarks For Samples Printed 10/12/10 at 09:52:58

TSR Signing Reports: 044 R5 - Desired TAT

Alison's direct dial 859-566-3729

Sample: L481739-01 Account: MACTECLOU Received: 10/01/10 09:00 Due Date: 10/08/10 00:00 RPT Date: 10/11/10 17:30 UNINV 554333. ln 10/11/10;REINV 554333. ln 10/12/10 Sample: L481739-02 Account: MACTECLOU Received: 10/01/10 09:00 Due Date: 10/07/10 00:00 RPT Date: 10/11/10 17:30

L·A·B SICILEINICIES

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

Analyte	Result	Laboratory Units	Blank % Rec	Limit	Batch	Date Analyzed
Analyce	Result	UNICS	* Rec		Batti	Date Analyze
Arsenic	< .05	mg/l			WG501428	10/04/10 00:
Barium	< .15	mg/l			WG501428	10/04/10 00:
Cadmium	< .05	mg/l			WG501428	10/04/10 00:
Chromium	< .05	mg/l			WG501428	10/04/10 00:
Lead	< .05	mg/l				10/04/10 00:
Selenium	< .05	mg/l			WG501428	10/04/10 00:
Silver	< .05	mg/l			WG501428	10/04/10 00:
1,1,1,2-Tetrachloroethane	< .001	mg/kg			WG501535	10/05/10 01:
1,1,1-Trichloroethane	< .001	mg/kg			WG501535	10/05/10 01:
1,1,2,2-Tetrachloroethane	< .001	mg/kg				10/05/10 01:
1,1,2-Trichloroethane	< .001	mg/kg				10/05/10 01:
1,1,2-Trichloro-1,2,2-trifluoroethane	< .001	mg/kg				10/05/10 01:
1,1-Dichloroethane	< .001	mg/kg				10/05/10 01:
1,1-Dichloroethene	< .001	mg/kg				10/05/10 01:
1,1-Dichloropropene	< .001	mg/kg				10/05/10 01:
1,2,3-Trichlorobenzene	< .001	mg/kg				10/05/10 01:
1,2,3-Trichloropropane	< .001	mg/kg				10/05/10 01:
1,2,3-Trimethylbenzene	< .001	mg/kg				10/05/10 01:
1,2,4-Trichlorobenzene	< .001	mg/kg				10/05/10 01:
1,2,4-Trimethylbenzene	< .001	mg/kg				10/05/10 01:
1,2-Dibromo-3-Chloropropane	< .005	mg/kg				10/05/10 01:
1,2-Dibromoethane	< .001	mg/kg				10/05/10 01:
1,2-Dichlorobenzene	< .001	mg/kg				10/05/10 01:
1,2-Dichloroethane	< .001	mg/kg				10/05/10 01:
1,2-Dichloropropane	< .001	mg/kg				10/05/10 01:
1,3,5-Trimethylbenzene	< .001	mg/kg				10/05/10 01:
1,3-Dichlorobenzene	< .001	mg/kg				10/05/10 01:
1,3-Dichloropropane	< .001	mg/kg				10/05/10 01:
1,4-Dichlorobenzene	< .001	mg/kg				10/05/10 01:
2,2-Dichloropropane	< .001	mg/kg				10/05/10 01:
2-Butanone (MEK)	< .01	mg/kg				10/05/10 01:
2-Chloroethyl vinyl ether	< .001	mg/kg				10/05/10 01:
2-Chlorotoluene	< .001	mg/kg				10/05/10 01:
4-Chlorotoluene	< .001	mg/kg				10/05/10 01:
4-Methyl-2-pentanone (MIBK)	< .01	mg/kg				10/05/10 01:
Acetone	< .01	mg/kg				10/05/10 01:
Acrylonitrile	< .01	mg/kg				10/05/10 01:
Benzene	< .001	mg/kg				10/05/10 01:
Bromobenzene	< .001	mg/kg				10/05/10 01:
Bromodichloromethane	< .001	mg/kg				10/05/10 01:
Bromoform	< .001	mg/kg				10/05/10 01:
Bromomethane	< .005	mg/kg				10/05/10 01:
Carbon tetrachloride	< .001					10/05/10 01:
Chlorobenzene	< .001	mg/kg mg/kg				10/05/10 01:
Chlorodibromomethane	< .001	mg/kg				10/05/10 01:
Chloroethane	< .001	mg/kg				10/05/10 01:
Chloroform	< .005					10/05/10 01:
Chloromethane	< .0025	mg/kg				10/05/10 01:
	< .0025	mg/kg				
cis-1,2-Dichloroethene		mg/kg				10/05/10 01:
cis-1,3-Dichloropropene	< .001	mg/kg				10/05/10 01:
Di-isopropyl ether	< .001	mg/kg				10/05/10 01:
Dibromomethane	< .001	mg/kg				10/05/10 01:
Dichlorodifluoromethane	< .005	mg/kg				10/05/10 01:
Ethylbenzene	< .001	mg/kg				10/05/10 01:
Hexachloro-1,3-butadiene	< .001	mg/kg				10/05/10 01:
Isopropylbenzene	< .001	mg/kg				10/05/10 01:
Methyl tert-butyl ether * Performance of this Analyte is	< .001	mg/kg			WG501535	10/05/10 01:

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

		Laboratory Blank					
Analyte	Result	Units	% Rec	Limit	Batch Da	te Analy	
					WGE01525 10	(05/10 0	
Methylene Chloride	< .005	mg/kg			WG501535 10		
n-Butylbenzene	< .001	mg/kg			WG501535 10		
1-Propylbenzene	< .001	mg/kg			WG501535 10		
laphthalene	< .005	mg/kg			WG501535 10		
-Isopropyltoluene	< .001	mg/kg			WG501535 10		
ec-Butylbenzene	< .001	mg/kg			WG501535 10		
tyrene	< .001	mg/kg			WG501535 10		
ert-Butylbenzene	< .001	mg/kg			WG501535 10		
etrachloroethene	< .001	mg/kg			WG501535 10		
oluene	< .005	mg/kg			WG501535 10	/05/10 0	
rans-1,2-Dichloroethene	< .001	mg/kg			WG501535 10	/05/10 0	
rans-1,3-Dichloropropene	< .001	mg/kg			WG501535 10	/05/10 0	
richloroethene	< .001	mg/kg			WG501535 10	/05/10 0	
richlorofluoromethane	< .005	mg/kg			WG501535 10	/05/10 0	
/inyl chloride	< .001	mg/kg			WG501535 10	/05/10 0	
ylenes, Total	< .003	mg/kg			WG501535 10	/05/10 0	
-Bromofluorobenzene		% Rec.	99.00	59-140	WG501535 10	/05/10 0	
Dibromofluoromethane		% Rec.	110.1	63-139	WG501535 10		
oluene-d8		% Rec.	99.71	84-116	WG501535 10		
						,,	
rsenic	< 1	mg/kg			WG501220 10	/04/10 1	
Barium	< .25	mg/kg			WG501220 10		
admium	< .25	mg/kg			WG501220 10 WG501220 10		
hromium	< .5	mg/kg			WG501220 10 WG501220 10		
lead	< .25	mg/kg			WG501220 10 WG501220 10		
Selenium	< 1	mg/kg			WG501220 10		
Silver	< .5						
STIVEL	< .5	mg/kg			WG501220 10	/04/10 1	
Mercury	< .02	mg/kg			WG501286 10	/05/10 1	
lercury	< .0002	mg/l			WG501461 10	/05/10 1	
,2,4-Trichlorobenzene	< .333	mg/kg			WG501407 10	/06/10 1	
,4,6-Trichlorophenol	< .333	mg/kg			WG501107 10 WG501407 10		
4,4-Dichlorophenol	< .333	mg/kg			WG501407 10 WG501407 10		
	< .333				WG501407 10		
4.4-Dimethylphenol		mg/kg					
2,4-Dinitrophenol	< .333	mg/kg			WG501407 10		
4-Dinitrotoluene	< .333	mg/kg			WG501407 10		
,6-Dinitrotoluene	< .333	mg/kg			WG501407 10		
-Chloronaphthalene	< .033	mg/kg			WG501407 10		
-Chlorophenol	< .333	mg/kg			WG501407 10		
-Nitrophenol	< .333	mg/kg			WG501407 10		
,3-Dichlorobenzidine	< .333	mg/kg			WG501407 10	/06/10 1	
,6-Dinitro-2-methylphenol	< .333	mg/kg			WG501407 10	/06/10 1	
-Bromophenyl-phenylether	< .333	mg/kg			WG501407 10	/06/10 1	
-Chloro-3-methylphenol	< .333	mg/kg			WG501407 10	/06/10 1	
-Chlorophenyl-phenylether	< .333	mg/kg			WG501407 10	/06/10 1	
-Nitrophenol	< .333	mg/kg			WG501407 10	/06/10 1	
cenaphthene	< .033	mg/kg			WG501407 10		
cenaphthylene	< .033	mg/kg			WG501407 10		
nthracene	< .033	mg/kg			WG501107 10 WG501407 10		
Benzidine	< .333	mg/kg			WG501407 10		
Senzo(a)anthracene	< .033	mg/kg			WG501407 10		
Senzo(a) pyrene	< .033	mg/kg			WG501407 10 WG501407 10		
	< .033				WG501407 10 WG501407 10		
<pre>3enzo(b)fluoranthene * Performance of this Analyt</pre>		mg/kg			WG301407 10	/00/IU I	

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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ESC SICILIE IN COLES

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

		Laboratory	Blank			
Analyte	Result	Units	% Rec	Limit	Batch Date	e Analy
	< .033				WG501407 10/0	
Benzo(g,h,i)perylene	< .033	mg/kg				
Senzo(k)fluoranthene		mg/kg			WG501407 10/0	
enzylbutyl phthalate	< .333	mg/kg			WG501407 10/0	
is(2-chlorethoxy)methane	< .333	mg/kg			WG501407 10/0	
is(2-chloroethyl)ether	< .333	mg/kg			WG501407 10/0	
is(2-chloroisopropyl)ether	< .333	mg/kg			WG501407 10/0	
is(2-ethylhexyl)phthalate	< .333	mg/kg			WG501407 10/0	
hrysene	< .033	mg/kg			WG501407 10/0	
i-n-butyl phthalate	< .333	mg/kg			WG501407 10/0	
i-n-octyl phthalate	< .333	mg/kg			WG501407 10/0	
ibenz(a,h)anthracene	< .033	mg/kg			WG501407 10/0	06/10 1
iethyl phthalate	< .333	mg/kg			WG501407 10/0	06/10 1
imethyl phthalate	< .333	mg/kg			WG501407 10/0	06/10 1
luoranthene	< .033	mg/kg			WG501407 10/0	06/10 1
luorene	< .033	mg/kg			WG501407 10/0	06/10 1
exachloro-1,3-butadiene	< .333	mg/kg			WG501407 10/0	06/10 1
exachlorobenzene	< .333	mg/kg			WG501407 10/0	
exachlorocyclopentadiene	< .333	mg/kg			WG501407 10/0	
exachloroethane	< .333	mg/kg			WG501407 10/0	
ndeno(1,2,3-cd)pyrene	< .033	mg/kg			WG501407 10/0	
sophorone	< .333	mg/kg			WG501407 10/0	
-Nitrosodi-n-propylamine	< .333	mg/kg			WG501407 10/0	
-Nitrosodimethylamine	< .333	mg/kg			WG501407 10/0	
-	< .333				WG501407 10/0	
Nitrosodiphenylamine	< .033	mg/kg				
aphthalene		mg/kg			WG501407 10/0	
itrobenzene	< .333	mg/kg			WG501407 10/0	
entachlorophenol	< .333	mg/kg			WG501407 10/0	
nenanthrene	< .033	mg/kg			WG501407 10/0	
nenol	< .333	mg/kg			WG501407 10/0	
rene	< .033	mg/kg			WG501407 10/0	
,4,6-Tribromophenol		mg/kg	71.89	25-137	WG501407 10/0	
-Fluorobiphenyl		mg/kg	64.10	30-120	WG501407 10/0	
-Fluorophenol		mg/kg	45.91	26-130	WG501407 10/0	
itrobenzene-d5		mg/kg	43.08	18-119	WG501407 10/0	06/10 1
nenol-d5		mg/kg	55.38	37-141	WG501407 10/0	06/10 1
Terphenyl-d14		mg/kg	103.0	23-143	WG501407 10/0	06/10 1
1-Dichloroethene	< .05	mg/l			WG501769 10/0	06/10 0
2-Dichloroethane	< .05	mg/l			WG501769 10/0	
-Butanone (MEK)	< .5	mg/l			WG501769 10/0	
enzene	< .05	mg/l			WG501769 10/0	
arbon tetrachloride	< .05	mg/l			WG501769 10/0	
lorobenzene	< .05	mg/l			WG501769 10/0	
lloroform	< .25	-			WG501769 10/0	
etrachloroethene	< .05	mg/l				
		mg/l			WG501769 10/0	
richloroethene	< .08	mg/l			WG501769 10/0	
nyl chloride	< .08	mg/l			WG501769 10/0	
Bromofluorobenzene		% Rec.	98.86	75-128	WG501769 10/0	
bromofluoromethane		% Rec.	100.6	79-125	WG501769 10/0	
luene-d8		% Rec.	107.6	87-114	WG501769 10/0	
a,a-Trifluorotoluene		% Rec.	104.5	84-114	WG501769 10/0	06/10 0
4-Dichlorobenzene	< .1	ppm			WG502030 10/0	08/10 1
4,5-Trichlorophenol	< .1	ppm			WG502030 10/0	
4,6-Trichlorophenol	< .1	ppm			WG502030 10/0	
,4-Dinitrotoluene	< .1				WG502030 10/0	
-Methylphenol	< .1	ppm			WG502030 10/0	
-INCCITATATIGHOT	< . I	ppm			MG207020 TO/(10/TO T

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Page 12 of 28

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L481739

October 12, 2010

		Labora	tory Blank				
Analyte	Result	Units		lec	Limit	Batch Da	ite Analyze
3&4-Methyl Phenol	< .1	ppm				WG502030 10	1/09/10 1/.
Hexachloro-1,3-butadiene	< .1					WG502030 10	
Hexachlorobenzene	< .1	ppm				WG502030 10	
Hexachloroethane	< .1	ppm					
		ppm				WG502030 10	
Nitrobenzene	< .1	ppm				WG502030 10	
Pentachlorophenol	< .1	ppm				WG502030 10	
Pyridine	< .1	ppm				WG502030 10	
2,4,6-Tribromophenol		ppm		5.55	10-148	WG502030 10	
2-Fluorobiphenyl		ppm		3.73	26-122	WG502030 10	
2-Fluorophenol		ppm		1.44	10-87	WG502030 10	
Nitrobenzene-d5		ppm			12-120	WG502030 10	
Phenol-d5		ppm	31	.68	10-67	WG502030 10	0/08/10 14:
p-Terphenyl-d14		ppm	95	5.03	34-149	WG502030 10	0/08/10 14:
		Du	plicate				
Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Arsenic	mg/l	0	0.000800	NA	20	L481752-04	WG5014
Barium	mg/l	0.290	0.284	2.78	20	L481752-04	WG5014
Cadmium	mg/l	0	0.000400	NA	20	L481752-04	
Chromium	mg/l	0	0.00190	NA	20	L481752-04	
Lead	mg/1	0.290	0.280	3.16	20	L481752-04	
Selenium	mg/l	0	0	0	20	L481752-04	
Silver	mg/l	0	0	0	20	L481752-04	
August -		7 00	0.10	12 0	20	T 401606 01	WGE 01 0
Arsenic	mg/kg	7.90	9.10	13.9		L481606-02	
Barium	mg/kg	120.	110.	5.31	20	L481606-02	
Cadmium	mg/kg	0.530	0.480	9.15	20	L481606-02	
Chromium	mg/kg	20.0	20.0	0.499	20	L481606-02	
Lead	mg/kg	6.80	5.70	17.2	20	L481606-02	
Selenium	mg/kg	3.20	3.00	7.07	20	L481606-02	
Silver	mg/kg	0	0	0	20	L481606-02	WG5012
Mercury	mg/kg	0.0190	0.0170	11.1	20	L482033-06	WG5012
Mercury	mg/l	0	0	0	20	L481701-01	. WG5014
		T - la ta					
Analyte	Units	Known Val	Control Sa	ampie Result	% Rec	Limit	Batch
	(7	1 1 0	1 0		100	05 115	1105.01.4
Arsenic	mg/l	1.13	1.2		106.	85-115	WG5014
Barium	mg/l	1.13	1.0		94.7	85-115	WG5014
Cadmium	mg/l	1.13	1.1		101.	85-115	WG5014
Chromium	mg/l	1.13	1.1		99.1	85-115	WG5014
Lead	mg/l	1.13	1.1		104.	85-115	WG5014
Selenium	mg/l	1.13	1.1		104.	85-115	WG5014
Silver	mg/l	1.13	1.0)9	96.5	85-115	WG5014
1,1,1,2-Tetrachloroethane	mg/kg	.025	0.0)221	88.5	73-134	WG5015
1,1,1-Trichloroethane	mg/kg	.025)230	92.1	62-135	WG5015
1,1,2,2-Tetrachloroethane	mg/kg	.025		265	106.	74-129	WG5015
1,1,2-Trichloroethane	mg/kg	.025		245	97.8	77-124	WG5015 WG5015
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	.025)167	67.0	49-155	WG5015
1,1-Dichloroethane	mg/kg	.025)232	92.8	61-134	WG5015 WG5015
1,1-Dichloroethene	mg/kg	.025)144	57.5	53-136	WG5015 WG5015
							MGD0TD

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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ESC IVE NICIES

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

		Laboratory Control Sample						
Analyte	Units	Known Val	Result	% Rec	Limit	Batch		
1,1-Dichloropropene	mg/kg	.025	0.0197	78.7	63-132	WG5015		
1,2,3-Trichlorobenzene	mg/kg	.025	0.0207	82.7	62-146	WG5015		
1,2,3-Trichloropropane	mg/kg	.025	0.0249	99.7	70-133	WG5015		
1,2,3-Trimethylbenzene	mg/kg	.025	0.0254	102.	73-126	WG5015		
1,2,4-Trichlorobenzene	mg/kg	.025	0.0202	80.7	61-148	WG5015		
1,2,4-Trimethylbenzene	mg/kg	.025	0.0242	96.7	68-135	WG5015		
1,2-Dibromo-3-Chloropropane	mg/kg	.025	0.0192	76.9	61-134	WG5015		
1,2-Dibromoethane	mg/kg	.025	0.0229	91.5	76-127	WG5015		
l,2-Dichlorobenzene	mg/kg	.025	0.0238	95.3	77-123	WG5015		
l,2-Dichloroethane	mg/kg	.025	0.0256	102.	58-141	WG5015		
,2-Dichloropropane	mg/kg	.025	0.0243	97.3	71-128	WG5015		
L,3,5-Trimethylbenzene	mg/kg	.025	0.0236	94.4	71-133	WG5015		
l,3-Dichlorobenzene	mg/kg	.025	0.0221	88.3	71-132	WG5015		
l,3-Dichloropropane	mg/kg	.025	0.0238	95.0	76-120	WG5015		
l,4-Dichlorobenzene	mg/kg	.025	0.0232	92.7	72-123	WG5015		
2,2-Dichloropropane	mg/kg	.025	0.0233	93.3	50-147	WG5015		
2-Butanone (MEK)	mg/kg	.125	0.120	95.9	51-131	WG5015		
2-Chloroethyl vinyl ether	mg/kg	.125	0.115	91.7	0-188	WG5015		
2-Chlorotoluene	mg/kg	.025	0.0248	99.4	73-128	WG5015		
4-Chlorotoluene	mg/kg	.025	0.0242	96.6	72-129	WG5015		
4-Methyl-2-pentanone (MIBK)	mg/kg	.125	0.140	112.	61-143	WG5015		
Acetone	mg/kg	.125	0.108	86.0	44-140	WG5015		
Acrylonitrile	mg/kg	.125	0.120	95.9	55-143	WG5015		
Benzene	mg/kg	.025	0.0210	83.9	65-128	WG5015		
Bromobenzene	mg/kg	.025	0.0246	98.6	75-123	WG5015		
Bromodichloromethane	mg/kg	.025	0.0256	102.	66-126	WG5015		
Bromoform	mg/kg	.025	0.0191	76.3	64-139	WG5015		
Bromomethane	mg/kg	.025	0.0269	108.	41-175	WG5015		
Carbon tetrachloride	mg/kg	.025	0.0188	75.0	60-140	WG5015		
Chlorobenzene Chlorodibromomethane	mg/kg	.025	0.0227	90.9 87.0	75-125 72-137	WG5015		
Chloroethane	mg/kg		0.0217 0.0174	69.8	44-159	WG5015		
Chloroform	mg/kg mg/kg	.025 .025	0.0253	101.	63-123	WG5015 WG5015		
Chloromethane	mg/kg	.025	0.0154	61.6	42-149	WG5015		
cis-1,2-Dichloroethene	mg/kg	.025	0.0219	87.5	71-129	WG5015 WG5015		
cis-1,3-Dichloropropene	mg/kg	.025	0.0219	94.2	73-132	WG5015 WG5015		
Di-isopropyl ether	mg/kg	.025	0.0255	102.	59-143	WG5015		
Dibromomethane	mg/kg	.025	0.0233	94.9	70-130	WG5015 WG5015		
Dichlorodifluoromethane	mg/kg	.025	0.0200	79.8	26-186	WG5015 WG5015		
Sthylbenzene	mg/kg	.025	0.0220	87.9	74-128	WG5015 WG5015		
Hexachloro-1,3-butadiene	mg/kg	.025	0.0213	85.2	65-137	WG5015 WG5015		
Isopropylbenzene	mg/kg	.025	0.0216	86.3	73-130	WG5015		
Methyl tert-butyl ether	mg/kg	.025	0.0240	96.0	44-148	WG5015		
Methylene Chloride	mg/kg	.025	0.0190	75.9	57-129	WG5015		
n-Butylbenzene	mg/kg	.025	0.0247	99.0	60-145	WG5015		
n-Propylbenzene	mg/kg	.025	0.0239	95.4	71-132	WG5015		
Japhthalene	mg/kg	.025	0.0210	84.1	61-142	WG5015		
-Isopropyltoluene	mg/kg	.025	0.0226	90.2	67-138	WG5015		
sec-Butylbenzene	mg/kg	.025	0.0236	94.6	71-134	WG5015		
Styrene	mg/kg	.025	0.0273	109.	76-133	WG5015		
ert-Butylbenzene	mg/kg	.025	0.0231	92.4	72-132	WG5015		
Tetrachloroethene	mg/kg	.025	0.0186	74.6	65-135	WG5015		
Coluene	mg/kg	.025	0.0210	84.0	70-120	WG5015		
rans-1,2-Dichloroethene	mg/kg	.025	0.0161	64.6	61-133	WG5015		
rans-1,3-Dichloropropene	mg/kg	.025	0.0244	97.5	70-135	WG5015		
Trichloroethene	mg/kg	.025	0.0194	77.4	71-126	WG5015		
Frichlorofluoromethane	mg/kg	.025	0.0238	95.4	52-147	WG5015		
Vinyl chloride	mg/kg	.025	0.0156	62.5	50-151	WG5015		

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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ESC IVE NICIES

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

		Laboratory Control Sample						
Analyte	Units	Known Val	Result	% Rec	Limit	Batch		
4-Bromofluorobenzene				99.82	59-140			
Dibromofluoromethane				111.2	63-139			
Toluene-d8				104.3	84-116			
Arsenic	mg/kg	192	176.	91.7	78.6-120.8	WG5012		
Barium	mg/kg	420	402.	95.7	78.8-121.4	WG5012		
Cadmium	mg/kg	70.1	66.3	94.6	78.5-121.5	WG5012		
Chromium	mg/kg	168	165.	98.2	80.4-120.2	WG5012		
Lead	mg/kg	113	105.	93.8	77.3-122.1	WG501		
Selenium		176	175.	99.4	75.6-125.0	WG5012 WG5012		
Silver	mg/kg	115	102.	88.7	66-133.9	WG5012 WG5012		
SIIVER	mg/kg	112	102.	88./	00-133.9	WGSUI		
Mercury	mg/kg	8.77	9.21	105.	71.6-127.7	WG5012		
Mercury	mg/l	.003	0.00284	94.7	85-115	WG5014		
1,2,4-Trichlorobenzene	mg/kg	.333	0.199	59.8	46-99	WG5014		
2,4,6-Trichlorophenol	mg/kg	.333	0.258	77.4	56-109	WG5014		
2,4-Dichlorophenol	mg/kg	.333	0.263	78.9	54-107	WG5014		
2,4-Dimethylphenol	mg/kg	.333	0.276	82.9	58-119	WG5014		
2,4-Dinitrophenol	mg/kg	.333	0.223	66.9	16-130	WG5014		
2,4-Dinitrotoluene	mg/kg	.333	0.264	79.4	53-120	WG5014		
2,6-Dinitrotoluene	mg/kg	.333	0.261	78.3	56-113	WG5014		
2-Chloronaphthalene	mg/kg	.333	0.235	70.7	55-103	WG5014		
2-Chlorophenol	mg/kg	.333	0.195	58.6	52-108	WG5014		
2-Nitrophenol		.333	0.239	71.7	38-110	WG5014		
3,3-Dichlorobenzidine	mg/kg	.333	0.239	62.3	24-123	WG5014		
	mg/kg							
4,6-Dinitro-2-methylphenol	mg/kg	.333	0.221	66.3	34-111	WG5014		
4-Bromophenyl-phenylether	mg/kg	.333	0.295	88.4	47-98	WG5014		
4-Chloro-3-methylphenol	mg/kg	.333	0.274	82.4	54-116	WG5014		
4-Chlorophenyl-phenylether	mg/kg	.333	0.260	77.9	55-106	WG5014		
4-Nitrophenol	mg/kg	.333	0.268	80.4	34-123	WG5014		
Acenaphthene	mg/kg	.333	0.237	71.1	54-102	WG5014		
Acenaphthylene	mg/kg	.333	0.260	78.0	56-104	WG5014		
Anthracene	mg/kg	.333	0.258	77.4	57-112	WG5014		
Benzidine	mg/kg	.333	0.00672	2.02	0-13	WG5014		
Benzo(a)anthracene	mg/kg	.333	0.251	75.5	55-105	WG5014		
Benzo(a)pyrene	mg/kg	.333	0.245	73.6	59-114	WG5014		
Benzo(b)fluoranthene	mg/kg	.333	0.242	72.7	44-116	WG5014		
Benzo(g,h,i)perylene	mg/kg	.333	0.267	80.3	41-127	WG5014		
Benzo(k)fluoranthene	mg/kg	.333	0.253	76.1	36-119	WG5014		
Benzylbutyl phthalate	mg/kg	.333	0.255	76.6	57-130	WG5014		
Bis(2-chlorethoxy)methane	mg/kg	.333	0.256	76.9	52-107	WG5014		
Bis(2-chloroethyl)ether	mg/kg	.333	0.189	56.7	38-115	WG5014		
Bis(2-chloroisopropyl)ether	mg/kg	.333	0.197	59.3	49-106	WG5014		
Bis(2-ethylhexyl)phthalate	mg/kg	.333	0.247	74.3	50-130	WG5014		
Chrysene	mg/kg	.333	0.252	75.6	54-103	WG5014		
Di-n-butyl phthalate	mg/kg	.333	0.271	81.4	56-121	WG5014		
Di-n-octyl phthalate	mg/kg	.333	0.235	70.4	50-128	WG5014		
Dibenz(a,h)anthracene	mg/kg	.333	0.265	79.4	42-128	WG5014		
Diethyl phthalate	mg/kg	.333	0.278	83.6	57-110	WG5014		
Dimethyl phthalate		.333	0.282	83.0	57-108	WG501		
	mg/kg							
fluoranthene	mg/kg	.333	0.273	81.8	51-109	WG501		
fluorene	mg/kg	.333	0.257	77.0	53-106	WG5014		
Hexachloro-1,3-butadiene	mg/kg	.333	0.227	68.2	46-110	WG5014		
Hexachlorobenzene	mg/kg	.333	0.285	85.7	51-117	WG501		
Hexachlorocyclopentadiene * Performance of this Analyt	mg/kg	.333	0.215	64.4	21-127	WG501		

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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в S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

85.0 73-134 4.20 20 WG501535

Quality Assurance Report Level II

L481739

October 12, 2010

		Laboratory Cor	itrol Sample			
Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Hexachloroethane	mg/kg	.333	0.160	48.0	43-104	WG50140'
Indeno(1,2,3-cd)pyrene	mg/kg	.333	0.271	81.4	42-127	WG50140
Isophorone	mg/kg	.333	0.251	75.3	56-116	WG50140
n-Nitrosodi-n-propylamine	mg/kg	.333	0.241	72.3	54-113	WG50140
n-Nitrosodimethylamine	mg/kg	.333	0.166	49.8	35-111	WG50140
n-Nitrosodiphenylamine	mg/kg	.333	0.236	70.7	66-126	WG50140'
Naphthalene	mg/kg	.333	0.212	63.7	46-97	WG50140
Nitrobenzene	mg/kg	.333	0.218	65.4	46-102	WG50140
Pentachlorophenol	mg/kg	.333	0.158	47.5	37-118	WG50140
Phenanthrene	mg/kg	.333	0.247	74.1	56-102	WG50140
Phenol	mg/kg	.333	0.242	72.5	55-115	WG50140
Pyrene	mg/kg	.333	0.237	71.3	53-111	WG50140
2,4,6-Tribromophenol	5, 5			83.46	25-137	WG50140
2-Fluorobiphenyl				73.66	30-120	WG50140
2-Fluorophenol				57.89	26-130	WG50140
Nitrobenzene-d5				64.07	18-119	WG50140
Phenol-d5				72.64	37-141	WG50140
p-Terphenyl-d14				87.61	23-143	WG50110
				07.01	25 115	WG50110
1,1-Dichloroethene	mg/l	.025	0.0265	106.	60-130	WG501769
1,2-Dichloroethane	mg/l	.025	0.0243	97.4	63-137	WG501769
2-Butanone (MEK)	mg/l	.125	0.133	106.	53-132	WG501769
Benzene	mg/l	.025	0.0267	107.	67-126	WG501769
Carbon tetrachloride	mg/l	.025	0.0270	108.	64-141	WG501769
Chlorobenzene	mg/l	.025	0.0237	94.6	77-125	WG501769
Chloroform	mg/l	.025	0.0249	99.5	66-126	WG501769
Tetrachloroethene	mg/l	.025	0.0226	90.5	67-135	WG501769
Trichloroethene	mg/l	.025	0.0242	96.7	74-126	WG501769
Vinvl chloride	mg/l	.025	0.0259	104.	55-153	WG501769
4-Bromofluorobenzene				102.1	75-128	WG50176
Dibromofluoromethane				110.6	79-125	WG50176
Toluene-d8				103.5	87-114	WG50176
a,a,a-Trifluorotoluene				96.65	84-114	WG50176
1,4-Dichlorobenzene	ppm	.01	0.00660	66.0	19-103	WG502030
2,4,5-Trichlorophenol	mqq	.01	0.00748	74.8	48-120	WG502030
2,4,6-Trichlorophenol	ppm	.01	0.00758	75.8	49-118	WG502030
2,4-Dinitrotoluene	ppm	.01	0.00875	87.5	56-128	WG502030
2-Methylphenol	ppm	.01	0.00631	63.1	42-99	WG502030
3&4-Methyl Phenol	mqq	.01	0.00713	71.3	36-102	WG502030
Hexachloro-1,3-butadiene	ppm	.01	0.00832	83.2	21-116	WG502030
Hexachlorobenzene	ppm	.01	0.00926	92.6	51-121	WG502030
Hexachloroethane	ppm	.01	0.00635	63.5	15-109	WG502030
Nitrobenzene	ppm	.01	0.00738	73.8	31-105	WG502030
Pentachlorophenol	ppm	.01	0.00367	36.7	20-122	WG502030
Pyridine	ppm	.01	0.00369	36.9	7-48	WG502030
2,4,6-Tribromophenol	11			85.27	10-148	WG50203
2-Fluorobiphenyl				86.95	26-122	WG502030
2-Fluorophenol				48.74	10-87	WG502030
Nitrobenzene-d5				77.85	12-120	WG50203
Phenol-d5				37.07	10-67	WG502030
p-Terphenyl-d14				101.3	34-149	WG502030
	T o	boratory Control	Sample Duplicate			
Analyte	Units R	-	%Rec		RPD Limit	Batch

1,1,1,2-Tetrachloroethane

,2-Tetrachloroethane mg/kg 0.0212 0.0221 85.0 73-134 * Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

ESC SICILIE IN COLES

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

Dec a la che a				ample Duplica			* 1 1 .	Det al
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
1,1,1-Trichloroethane	mg/kg	0.0222	0.0230	89.0	62-135	3.79	20	WG5015
1,1,2,2-Tetrachloroethane	mg/kg	0.0258	0.0265	103.	74-129	2.52	20	WG5015
1,1,2-Trichloroethane	mg/kg	0.0238	0.0245	95.0	77-124	2.56	20	WG5015
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	0.0166	0.0167	66.0	49-155	1.08	20	WG5015
1,1-Dichloroethane	mg/kg	0.0223	0.0232	89.0	61-134	3.85	20	WG5015
1,1-Dichloroethene	mg/kg	0.0140	0.0144	56.0	53-136	2.50	20	WG5015
1,1-Dichloropropene	mg/kg	0.0188	0.0197	75.0	63-132	4.46	20	WG5015
1,2,3-Trichlorobenzene	mg/kg	0.0194	0.0207	77.0	62-146	6.54	20	WG5015
1,2,3-Trichloropropane	mg/kg	0.0246	0.0249	98.0	70-133	1.36	20	WG5015
1,2,3-Trimethylbenzene 1,2,4-Trichlorobenzene	mg/kg	0.0264 0.0194	0.0254	106. 77.0	73-126 61-148	3.69 4.04	20 20	WG5015 WG5015
1,2,4-Trimethylbenzene	mg/kg mg/kg	0.0194	0.0202	88.0	68-135	4.04 9.16	20	WG5015 WG5015
1,2-Dibromo-3-Chloropropane	mg/kg	0.0214	0.0192	86.0	61-134	10.9	20	WG5015
1,2-Dibromoethane	mg/kg	0.0214	0.0229	88.0	76-127	4.04	20	WG5015
1,2-Dichlorobenzene	mg/kg	0.0246	0.0238	98.0	77-123	3.07	20	WG5015
1,2-Dichloroethane	mg/kg	0.0255	0.0256	102.	58-141	0.170	20	WG5015
1,2-Dichloropropane	mg/kg	0.0243	0.0243	97.0	71-128	0.110	20	WG5015
1,3,5-Trimethylbenzene	mg/kg	0.0218	0.0236	87.0	71-133	8.11	20	WG5015
1,3-Dichlorobenzene	mg/kg	0.0201	0.0221	80.0	71-132	9.10	20	WG5015
1,3-Dichloropropane	mg/kg	0.0228	0.0238	91.0	76-120	4.16	20	WG5015
1,4-Dichlorobenzene	mg/kg	0.0233	0.0232	93.0	72-123	0.780	20	WG5015
2,2-Dichloropropane	mg/kg	0.0218	0.0233	87.0	50-147	6.96	20	WG5015
2-Butanone (MEK)	mg/kg	0.120	0.120	96.0	51-131	0.390	25	WG5015
2-Chloroethyl vinyl ether	mg/kg	0.117	0.115	94.0	0-188	2.40	39	WG5015
2-Chlorotoluene	mg/kg	0.0232	0.0248	93.0	73-128	6.94	20	WG5015
4-Chlorotoluene	mg/kg	0.0221	0.0242	88.0	72-129	9.13	20	WG5015
4-Methyl-2-pentanone (MIBK)	mg/kg	0.145	0.140	116.	61-143	3.90	23	WG5015
Acetone	mg/kg	0.111	0.108	89.0	44-140	3.09	25	WG5015
Acrylonitrile	mg/kg	0.124	0.120	99.0	55-143	3.04	20	WG5015
Benzene	mg/kg	0.0201	0.0210	80.0	65-128	4.07	20	WG5015
Bromobenzene	mg/kg	0.0232	0.0246	93.0	75-123	5.80	20	WG5015
Bromodichloromethane	mg/kg	0.0254	0.0256	102.	66-126	0.750	20	WG5015
Bromoform	mg/kg	0.0187	0.0191	75.0	64-139	2.14	20 20	WG5015
Bromomethane Carbon tetrachloride	mg/kg	0.0256	0.0269	102.	41-175	4.98	20	WG5015
Chlorobenzene	mg/kg	0.0184 0.0211	0.0188 0.0227	74.0 84.0	60-140 75-125	1.90 7.31	20	WG5015 WG5015
Chlorodibromomethane	mg/kg mg/kg	0.0211	0.0217	88.0	72-137	0.690	20	WG5015
Chloroethane	mg/kg	0.0219	0.0174	70.0	44-159	0.390	20	WG5015
Chloroform	mg/kg	0.0175	0.0253	99.0	63-123	2.34	20	WG5015
Chloromethane	mg/kg	0.0148	0.0154	59.0	42-149	4.13	20	WG5015
cis-1,2-Dichloroethene	mg/kg	0.0208	0.0219	83.0	71-129	5.12	20	WG5015
cis-1,3-Dichloropropene	mg/kg	0.0238	0.0235	95.0	73-132	1.03	20	WG5015
Di-isopropyl ether	mg/kg	0.0251	0.0255	100.	59-143	1.25	20	WG5015
Dibromomethane	mg/kg	0.0232	0.0237	93.0	70-130	2.16	20	WG5015
Dichlorodifluoromethane	mg/kg	0.0191	0.0200	76.0	26-186	4.26	22	WG5015
Ethylbenzene	mg/kg	0.0206	0.0220	82.0	74-128	6.54	20	WG5015
Hexachloro-1,3-butadiene	mg/kg	0.0196	0.0213	78.0	65-137	8.29	20	WG5015
Isopropylbenzene	mg/kg	0.0202	0.0216	81.0	73-130	6.61	20	WG5015
Methyl tert-butyl ether	mg/kg	0.0242	0.0240	97.0	44-148	0.760	20	WG5015
Methylene Chloride	mg/kg	0.0183	0.0190	73.0	57-129	3.38	20	WG5015
n-Butylbenzene	mg/kg	0.0251	0.0247	100.	60-145	1.36	20	WG5015
n-Propylbenzene		0.0219	0.0239	87.0	71-132	8.70	20	WG5015
Naphthalene	mg/kg	0.0204	0.0210	81.0	61-142	3.22	20	WG5015
p-Isopropyltoluene	mg/kg	0.0202	0.0226	81.0	67-138	11.2	20	WG5015
sec-Butylbenzene		0.0218	0.0236	87.0	71-134	8.02	20	WG5015
Styrene	mg/kg	0.0260	0.0273	104.	76-133	4.76	20	WG5015
tert-Butylbenzene	mg/kg	0.0213	0.0231	85.0	72-132	8.25	20	WG5015
Tetrachloroethene		0.0170	0.0186	68.0	65-135	9.42	20	WG5015
Toluene	mg/kg	0.0204	0.0210	81.0	70-120	3.07	20	WG5015

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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L·A·B SICIIEINICES

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

				ample Duplicate					
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch	
trans-1,2-Dichloroethene	mg/kg	0.0154	0.0161	62.0	61-133	4.78	20	WG5015	
trans-1,3-Dichloropropene	mg/kg	0.0246	0.0244	98.0	70-135	0.770	20	WG501	
Trichloroethene	mg/kg	0.0187	0.0194	75.0	71-126	3.57	20	WG501	
Trichlorofluoromethane	mg/kg	0.0228	0.0238	91.0	52-147	4.66	20	WG501	
Vinyl chloride	mg/kg	0.0153	0.0156	61.0	50-151	2.12	20	WG501	
Xylenes, Total	mg/kg	0.0623	0.0669	83.0	74-127	7.10	20	WG501	
4-Bromofluorobenzene				94.14	59-140			WG501	
Dibromofluoromethane				110.1	63-139			WG501	
Toluene-d8				102.4	84-116			WG501	
1,2,4-Trichlorobenzene	mg/kg	0.170	0.199	51.0	46-99	15.7	24	WG501	
2,4,6-Trichlorophenol	mg/kg	0.273	0.258	82.0	56-109	5.63	20	WG501	
2,4-Dichlorophenol	mg/kg	0.265	0.263	80.0	54-107	0.849	21	WG501	
2,4-Dimethylphenol	mg/kg	0.271	0.276	81.0	58-119	1.79	23	WG501	
2,4-Dinitrophenol	mg/kg	0.193	0.223	58.0	16-130	14.4	45	WG501	
2,4-Dinitrotoluene	mg/kg	0.273	0.264	82.0	53-120	3.13	23	WG501	
2,6-Dinitrotoluene	mg/kg	0.281	0.261	84.0	56-113	7.36	22	WG501	
2-Chloronaphthalene	mg/kg	0.241	0.235	72.0	55-103	2.43	20	WG501	
2-Chlorophenol	mg/kg	0.167	0.195	50*	52-108	15.5	24	WG501	
2-Nitrophenol	mg/kg	0.231	0.239	69.0	38-110	3.15	24	WG501	
3,3-Dichlorobenzidine	mg/kg	0.207	0.207	62.0	24-123	0.0723	35	WG501	
4,6-Dinitro-2-methylphenol	mg/kg	0.218	0.221	66.0	34-111	1.11	33	WG501	
4-Bromophenyl-phenylether	mg/kg	0.321	0.221	96.0	47-98	8.54	23	WG501	
4-Chloro-3-methylphenol	mg/kg	0.283	0.295	85.0	54-116	3.20	23	WG501	
4-Chlorophenyl-phenylether	mg/kg	0.285	0.260	83.0	55-106	6.14	22	WG501	
4-Nitrophenol	mg/kg	0.258	0.268	78.0	34-123	3.60	36	WG501	
Acenaphthene	mg/kg	0.248	0.237	74.0	54-102	4.45	20	WG501	
Acenaphthylene	mg/kg	0.272	0.260	82.0	56-104	4.66	20	WG501	
Anthracene	mg/kg	0.272	0.258	83.0	57-112	7.20	20	WG501	
Benzidine	mg/kg	0.00225	0.238	1.00	0-13	99.7*	50	WG501	
Benzo(a)anthracene	mg/kg	0.274	0.251	82.0	55-105	8.74	21	WG5014	
Benzo(a)pyrene	mg/kg	0.250	0.245	75.0	59-114	1.99	22	WG5014	
Benzo(b)fluoranthene	mg/kg	0.254	0.243	76.0	44-116	4.86	33	WG501	
Benzo(q,h,i)perylene	mg/kg	0.259	0.242	78.0	41-127	3.26	29	WG501	
Benzo(k)fluoranthene	mg/kg	0.261	0.253	78.0	36-119	3.05	37	WG501	
Benzylbutyl phthalate	mg/kg	0.201	0.255	88.0	57-130	13.9	27	WG501	
Bis(2-chlorethoxy)methane	mg/kg	0.293	0.255	75.0	52-107	2.03	21	WG501	
Bis(2-chloroethyl)ether		0.251	0.189	48.0	38-115	16.0	21	WG501	
Bis(2-chloroisopropyl)ether	mg/kg mg/kg	0.167	0.197	50.0	49-106	16.8	28	WG501	
		0.107	0.197	89.0		18.2	25	WG501	
Bis(2-ethylhexyl)phthalate	mg/kg		0.247	89.0	50-130	5.63	29		
Chrysene	mg/kg	0.266			54-103		23	WG501	
Di-n-butyl phthalate	mg/kg	0.304	0.271	91.0	56-121	11.4 18.1	22	WG5014	
Di-n-octyl phthalate	mg/kg	0.281	0.235	84.0	50-128			WG501	
Dibenz(a,h)anthracene	mg/kg	0.240	0.265	72.0	42-128	9.56	28 20	WG501	
Diethyl phthalate	mg/kg	0.298	0.278	90.0	57-110	6.81	20	WG501	
Dimethyl phthalate	mg/kg	0.296	0.282	89.0	57-108	5.02	20	WG501	
Fluoranthene	mg/kg	0.262	0.273	79.0	51-109	3.90		WG501	
Fluorene	mg/kg	0.273	0.257	82.0	53-106	6.27	20	WG501	
Hexachloro-1,3-butadiene	mg/kg	0.190	0.227	57.0	46-110	17.9	25	WG501	
Hexachlorobenzene	mg/kg	0.328	0.285	98.0	51-117	13.8	24	WG501	
Hexachlorocyclopentadiene	mg/kg	0.209	0.215	63.0	21-127	2.45	40	WG501	
Hexachloroethane	mg/kg	0.123	0.160	37*	43-104	26.0	27	WG501	
Indeno(1,2,3-cd)pyrene	mg/kg	0.254	0.271	76.0	42-127	6.49	28	WG501	
Isophorone	mg/kg	0.254	0.251	76.0	56-116	1.46	21	WG501	
n-Nitrosodi-n-propylamine	mg/kg	0.245	0.241	74.0	54-113	1.67	21	WG501	
n-Nitrosodimethylamine	mg/kg	0.129	0.166	39.0	35-111	24.7	35	WG501	
n-Nitrosodiphenylamine	mg/kg	0.268	0.236	80.0	66-126	12.8	22	WG501	
Naphthalene	mg/kg	0.193	0.212	58.0	46-97	9.67	23	WG5014	

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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в S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

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Tax I.D. 62-0814289

L481752-04

WG501428

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

		-	Control Sar	icate					
Analyte	Units	Result	Ref	%Rec		Limit	RPD	Limit	Batch
Nitrobenzene	mg/kg	0.196	0.218	59.0		46-102	10.5	23	WG501
Pentachlorophenol	mg/kg	0.166	0.158	50.0		37-118	4.51	28	WG501
Phenanthrene	mg/kg	0.263	0.247	79.0		56-102	6.35	20	WG501
Phenol	mg/kg	0.209	0.242	63.0		55-115	14.4	22	WG501
Pyrene	mg/kg	0.273	0.237	82.0		53-111	14.1	26	WG501
2,4,6-Tribromophenol				92.50		25-137			WG501
2-Fluorobiphenyl				74.96		30-120			WG501
2-Fluorophenol				44.70		26-130			WG501
Nitrobenzene-d5				55.96		18-119			WG501
Phenol-d5				64.91		37-141			WG501
p-Terphenyl-d14				91.06		23-143			WG501
1,1-Dichloroethene	mg/l	0.0277	0.0265	111.		60-130	4.16	20	WG501
1,2-Dichloroethane	mg/l	0.0252	0.0243	101.		63-137	3.63	20	WG501
2-Butanone (MEK)	mg/l	0.129	0.133	103.		53-132	2.96	20	WG501
Benzene	mg/l	0.0284	0.0267	113.		67-126	5.89	20	WG501
Carbon tetrachloride	mg/l	0.0287	0.0270	115.		64-141	6.26	20	WG501
Chlorobenzene	mg/l	0.0258	0.0237	103.		77-125	8.53	20	WG501
Chloroform	mg/l	0.0264	0.0249	106.		66-126	5.98	20	WG501
Tetrachloroethene	mg/l	0.0241	0.0226	96.0		67-135	6.41	20	WG501
Trichloroethene	mg/l	0.0257	0.0242	103.		74-126	6.14	20	WG501
Vinyl chloride	mg/l	0.0278	0.0259	111.		55-153	6.80	20	WG501
4-Bromofluorobenzene	<u> </u>			104.8		75-128			WG501
Dibromofluoromethane				111.4		79-125			WG501
Toluene-d8				107.9		87-114			WG501
a,a,a-Trifluorotoluene				99.23		84-114			WG501
1,4-Dichlorobenzene	mqq	0.00686	0.00660	68.0		19-103	3.89	50	WG502
2,4,5-Trichlorophenol	ppm	0.00740	0.00748	74.0		48-120	1.11	29	WG502
2,4,6-Trichlorophenol	ppm	0.00725	0.00758	72.0		49-118	4.46	28	WG502
2,4-Dinitrotoluene	ppm	0.00848	0.00875	85.0		56-128	3.15	24	WG502
2-Methylphenol	ppm	0.00617	0.00631	62.0		42-99	2.18	26	WG502
3&4-Methyl Phenol	ppm	0.00667	0.00713	67.0		36-102	6.69	31	WG502
Hexachloro-1,3-butadiene	ppm	0.00861	0.00832	86.0		21-116	3.35	50	WG5020
Hexachlorobenzene	ppm	0.00907	0.00926	91.0		51-121	2.16	23	WG5020
Hexachloroethane	mqq	0.00649	0.00635	65.0		15-109	2.30	50	WG502
Nitrobenzene	ppm	0.00737	0.00738	74.0		31-105	0.0830	43	WG502
Pentachlorophenol	ppm	0.00428	0.00367	43.0		20-122	15.5	50	WG502
Pyridine	ppm	0.00346	0.00369	34.0		7-48	6.52	50	WG502
2,4,6-Tribromophenol	11			82.64		10-148			WG5020
2-Fluorobiphenyl				83.61		26-122			WG502
2-Fluorophenol				48.33		10-87			WG502
Nitrobenzene-d5				78.68		12-120			WG502
Phenol-d5				35.57		10-67			WG502
p-Terphenyl-d14				105.4		34-149			WG502
			Matrix Spil	ce					
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit		Ref Samp	Batch
Arsenic	mg/l	1.17	0.000800	1.13	103.	75-125		L481752-04	WG501
Barium	mg/1	1.34	0.284	1.13	93.4	75-125		L481752-04	WG501
Cadmium	mg/1	1.11	0.000400	1.13	98.2	75-125		L481752-04	WG501
Chromium	mg/1	1.10	0.00190	1.13	97.2	75-125		L481752-04	WG501
Lead	mg/1	1.41	0.280	1.13	100.	75-125		L481752-04	WG501
Selenium	mg/1	1.12	0	1.13	99.1	75-125		L481752-04	WG5014
			-						

99.1

1.13

mg/l 1.08 0 1.13 95.6 75-125 Silver * Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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L·A·B SICILEINICIES

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

Matrix Spike											
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch			
1,1,1,2-Tetrachloroethane	mg/kg	1.36	0	.025	104.	29-145	L481606-01	WG5015			
1,1,1-Trichloroethane	mg/kg	1.68	0	.025	128.	23-147	L481606-01	WG5015			
1,1,2,2-Tetrachloroethane	mg/kg	1.34	0	.025	102.	18-150	L481606-01	WG5015			
1,1,2-Trichloroethane	mg/kg	1.39	0	.025	106.	35-140	L481606-01	WG5015			
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	1.80	0	.025	137.	10-145	L481606-01	WG5015			
1,1-Dichloroethane	mg/kg	1.72	0	.025	131.	24-148	L481606-01	WG5015			
1,1-Dichloroethene	mg/kg	1.66	0	.025	127.	10-149	L481606-01	WG5015			
1,1-Dichloropropene	mg/kg	1.71	0	.025	130.	10-141	L481606-01	WG5015			
1,2,3-Trichlorobenzene	mg/kg	1.49	0	.025	114.	10-129	L481606-01	WG5015			
1,2,3-Trichloropropane	mg/kg	1.34	0	.025	102.	30-148	L481606-01	WG5015			
1,2,3-Trimethylbenzene	mg/kg	1.64	0	.025	125.	10-137	L481606-01	WG5015			
1,2,4-Trichlorobenzene	mg/kg	1.57	0	.025	120.*	10-119	L481606-01	WG5015			
1,2,4-Trimethylbenzene	mg/kg	1.53	0	.025	116.	10-145	L481606-01	WG5015			
1,2-Dibromo-3-Chloropropane	mg/kg	1.13	0	.025	86.1	19-145	L481606-01	WG5015			
1,2-Dibromoethane	mg/kg	1.38	0	.025	105.	24-145	L481606-01	WG5015			
1,2-Dichlorobenzene	mg/kg	1.54	0	.025	117.	12-130	L481606-01	WG5015			
1,2-Dichloroethane	mg/kg	1.66	0	.025	126.	21-155	L481606-01	WG5015			
1,2-Dichloropropane	mg/kg	1.54	0	.025	118.	28-144	L481606-01	WG5015			
1,3,5-Trimethylbenzene	mg/kg	1.54	0	.025	117.	10-135	L481606-01	WG5015			
1,3-Dichlorobenzene	mg/kg	1.43	0	.025	109.	10-129	L481606-01	WG5015			
1,3-Dichloropropane	mg/kg	1.41	0	.025	108.	31-137	L481606-01	WG5015			
1,4-Dichlorobenzene	mg/kg	1.50	0	.025	114.	10-121	L481606-01	WG5015			
2,2-Dichloropropane	mg/kg	1.73	0	.025	132.	18-144	L481606-01	WG5015			
2-Butanone (MEK)	mg/kg	6.79	0	.125	103.	21-143	L481606-01	WG5015 WG5015			
2-Chloroethyl vinyl ether	mg/kg	6.82	0	.125	104.	0-176	L481606-01	WG5015			
2-Chlorotoluene	mg/kg	1.58	0	.025	120.	10-132	L481606-01	WG5015 WG5015			
4-Chlorotoluene	mg/kg	1.51	0	.025	115.	10-129	L481606-01	WG5015			
4-Methyl-2-pentanone (MIBK)	mg/kg	6.36	0	.125	97.0	31-151	L481606-01	WG5015			
Acetone	mg/kg	6.25	0	.125	95.2	13-158	L481606-01	WG5015			
Acrylonitrile	mg/kg	6.98	0	.125	106.	20-154	L481606-01	WG5015 WG5015			
Benzene	mg/kg	1.63	0	.025	124.	16-143	L481606-01	WG5015			
Bromobenzene	mg/kg	1.53	0	.025	116.	14-135	L481606-01	WG5015			
Bromodichloromethane	mg/kg	1.45	0	.025	110.	27-139	L481606-01	WG5015 WG5015			
Bromoform	mg/kg	1.01	0	.025	76.6	21-144	L481606-01	WG5015			
Bromomethane	mg/kg	1.31	0	.025	99.7	0-180	L481606-01	WG5015 WG5015			
Carbon tetrachloride	mg/kg	1.45	0	.025	111.	12-149	L481606-01	WG5015 WG5015			
Chlorobenzene	mg/kg	1.46	0	.025	111.	17-134	L481606-01	WG5015			
Chlorodibromomethane	mg/kg	1.24	0	.025	94.7	28-147	L481606-01	WG5015			
Chloroethane	mg/kg	0.316	0	.025	24.1	0-172	L481606-01	WG5015 WG5015			
Chloroform	mg/kg	1.75	0	.025	133.	28-138	L481606-01	WG5015 WG5015			
Chloromethane	mg/kg	1.57	0	.025	119.	10-158	L481606-01	WG5015 WG5015			
cis-1,2-Dichloroethene	mg/kg	1.61	0	.025	123.	21-147	L481606-01	WG5015 WG5015			
cis-1,3-Dichloropropene	mg/kg	1.44	0	.025	110.	17-145	L481606-01	WG5015 WG5015			
Di-isopropyl ether	mg/kg	1.64	0	.025	125.	31-153	L481606-01	WG5015 WG5015			
Dibromomethane	mg/kg	1.04	0	.025	110.	24-147	L481606-01	WG5015 WG5015			
Dichlorodifluoromethane		1.70	0	.025	129.	0-192	L481606-01	WG5015 WG5015			
Sthylbenzene	mg/kg	1.46	0	.025	1129.	12-137	L481606-01	WG5015 WG5015			
-	mg/kg	1.40	0								
Mexachloro-1,3-butadiene	mg/kg		0	.025	116.	10-123	L481606-01	WG5015			
sopropylbenzene	mg/kg	1.53		.025	116.	14-134	L481606-01	WG5015			
Nethyl tert-butyl ether	mg/kg	1.58	0	.025	120.	21-157	L481606-01	WG5015			
Methylene Chloride	mg/kg	1.51	0	.025	115.	12-149	L481606-01	WG5015			
1-Butylbenzene	mg/kg	1.76	0	.025	134.*	10-130	L481606-01	WG5015			
1-Propylbenzene	mg/kg	1.57	0	.025	120.	10-130	L481606-01	WG5015			
Naphthalene	mg/kg	1.42	0.0760	.025	102.	0-146	L481606-01	WG5015			
p-Isopropyltoluene	mg/kg	1.53	0	.025	116.	10-131	L481606-01	WG5015			
sec-Butylbenzene	mg/kg	1.56	0	.025	119.	10-134	L481606-01	WG5015			
Styrene	mg/kg	1.39	0	.025	106.	10-140	L481606-01	WG5015			
tert-Butylbenzene	mg/kg	1.52	0	.025	116.	11-137	L481606-01	WG5015			

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L·A·B SICILEINICIES

YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

			Matrix Spik	ce				
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batc
Tetrachloroethene	mg/kg	1.42	0	.025	108.	10-131	L481606-01	WG50
Toluene	mg/kg	1.48	0	.025	113.	12-136	L481606-01	WG50
rans-1,2-Dichloroethene	mg/kg	1.60	0	.025	122.	10-143	L481606-01	WG50
rans-1,3-Dichloropropene	mg/kg	1.41	0	.025	107.	16-147	L481606-01	WG50
richloroethene	mg/kg	1.52	0	.025	116.	10-155	L481606-01	WG50
richlorofluoromethane	mg/kg	1.63	0	.025	124.	10-154	L481606-01	WG50
inyl chloride	mg/kg	2.00	0	.025	152.	10-159	L481606-01	WG50
ylenes, Total	mg/kg	4.43	0	.075	112.	10-138	L481606-01	WG50
-Bromofluorobenzene					94.40	59-140		WG50
ibromofluoromethane					109.1	63-139		WG50
oluene-d8					100.3	84-116		WG50
rsenic	mg/kg	51.0	9.10	50	83.8	75-125	L481606-02	WG50
Barium	mg/kg	157.	110.	50	94.0	75-125	L481606-02	WG50
admium	mg/kg	43.7	0.480	50	86.4	75-125	L481606-02	WG50
hromium	mg/kg	64.6	20.0	50	89.2	75-125	L481606-02	WG50
ead	mg/kg	48.9	5.70	50	86.4	75-125	L481606-02	WG50
elenium	mg/kg	43.3	3.00	50	80.6	75-125	L481606-02	WG50
ilver	mg/kg	44.4	0	50	88.8	75-125	L481606-02	WG50
lercury	mg/kg	0.250	0.0170	.25	93.2	70-130	L482033-06	WG50
ercury	mg/l	0.00288	0	.003	96.0	70-130	L481701-01	WG50
ercury	mg/l	0.00236	0	.003	78.7	70-130	L481705-01	WG50
ciculy	mg/ 1	0.00230	0	.005	/0./	70 150	1401705 01	WG50
,1-Dichloroethene	mg/l	1.11	0	1.25	88.7	10-162	L481701-01	WG50
,2-Dichloroethane	mg/l	1.26	0	1.25	101.	29-167	L481701-01	WG50
-Butanone (MEK)	mg/l	6.44	0	6.25	103.	32-151	L481701-01	WG50
enzene	mg/l	1.35	0	1.25	108.	16-158	L481701-01	WG50
arbon tetrachloride	mg/l	1.35	0	1.25	108.	22-168	L481701-01	WG50
hlorobenzene	mg/l	1.24	0	1.25	99.0	33-148	L481701-01	WG50
hloroform	mg/l	1.24	0	1.25	99.4	37-147	L481701-01	WG50
etrachloroethene	mg/l	1.12	0	1.25	89.2	13-157	L481701-01	WG50
richloroethene	mg/l	1.23	0	1.25	98.6	18-163	L481701-01	WG50
inyl chloride	mg/l	1.29	0	1.25	103.	0-179	L481701-01	WG50
-Bromofluorobenzene					100.4	75-128		WG50
ibromofluoromethane					110.1	79-125		WG50
oluene-d8					108.1	87-114		WG50
,a,a-Trifluorotoluene					103.5	84-114		WG50
,1-Dichloroethene	mg/l	0.999	0	1.25	79.9	10-162	L481705-01	WG50
,2-Dichloroethane	mg/l	1.13	0	1.25	90.3	29-167	L481705-01	WG50
-Butanone (MEK)	mg/l	5.98	0	6.25	95.7	32-151	L481705-01	WG50
enzene	mg/l	1.21	0	1.25	96.7	16-158	L481705-01	WG50
arbon tetrachloride	mg/l	1.22	0	1.25	97.4	22-168	L481705-01	WG50
hlorobenzene	mg/l	1.17	0	1.25	93.5	33-148	L481705-01	WG50
hloroform	mg/l	1.14	0	1.25	91.0	37-147	L481705-01	WG50
etrachloroethene	mg/l	1.05	0	1.25	84.2	13-157	L481705-01	WG50
richloroethene	mg/l	1.18	0	1.25	94.6	18-163	L481705-01	WG50
inyl chloride	mg/l	1.17	0	1.25	93.3	0-179	L481705-01	WG50
-Bromofluorobenzene					101.0	75-128		WG50
ibromofluoromethane					101.9	79-125		WG50
oluene-d8					108.0	87-114		WG50
,a,a-Trifluorotoluene					100.0	0, 111		1050

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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ESC SICILE NICLES

YOUR LAB OF CHOICE

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Louisville, KY 40223

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Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

			Matrix Spil	ce						
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch		
1,2,4-Trichlorobenzene	mg/kg	0.159	0	.333	47.6	37-104	L481606-02	WG5014		
2,4,6-Trichlorophenol	mg/kg	0.250	0	.333	75.1	27-128	L481606-02	WG5014 WG5014		
4-Dichlorophenol	mg/kg	0.228	0	.333	68.4	39-116	L481606-02	WG5014 WG5014		
2,4-Dimethylphenol	mg/kg	0.235	0	.333	70.6	50-119	L481606-02	WG5014 WG5014		
4-Dinitrophenol	mg/kg	0.0360	0	.333	10.8	10-123	L481606-02	WG5014 WG5014		
2,4-Dinitrotoluene	mg/kg	0.255	0	.333	76.7	52-121	L481606-02	WG5014 WG5014		
2,6-Dinitrotoluene	mg/kg	0.252	0	.333	75.6	53-114	L481606-02	WG5011		
2-Chloronaphthalene	mg/kg	0.230	0	.333	69.1	52-101	L481606-02	WG5011		
2-Chlorophenol	mg/kg	0.153	0	.333	46.0	41-112	L481606-02	WG5011 WG5014		
2-Nitrophenol	mg/kg	0.192	0	.333	57.6	23-117	L481606-02	WG5014		
3,3-Dichlorobenzidine	mg/kg	0.185	0	.333	55.4	10-133	L481606-02	WG5014		
,6-Dinitro-2-methylphenol	mg/kg	0.122	0	.333	36.6	10-124	L481606-02	WG5011		
-Bromophenyl-phenylether	mg/kg	0.282	0	.333	84.7	37-103	L481606-02	WG5014		
-Chloro-3-methylphenol	mg/kg	0.274	0	.333	82.3	52-119	L481606-02	WG5014		
-Chlorophenyl-phenylether	mg/kg	0.257	0	.333	77.2	53-105	L481606-02	WG5014		
l-Nitrophenol	mg/kg	0.226	0	.333	67.8	15-140	L481606-02	WG5011		
Acenaphthene	mg/kg	0.242	0	.333	72.7	52-102	L481606-02	WG5014		
Acenaphthylene	mg/kg	0.257	0	.333	77.0	54-103	L481606-02	WG5011		
Anthracene	mg/kg	0.266	0	.333	79.8	55-114	L481606-02	WG5011		
Benzidine	mg/kg	0.000124		.333	0.0370	0-45	L481606-02	WG5014		
Senzo(a)anthracene	mg/kg	0.240	0	.333	72.0	37-124	L481606-02	WG5014		
Benzo(a)pyrene	mg/kg	0.247	0	.333	74.3	44-129	L481606-02	WG5011		
Senzo(b)fluoranthene	mg/kg	0.242	0	.333	72.8	28-135	L481606-02	WG5011		
Senzo(g,h,i)perylene	mg/kg	0.169	0	.333	50.6	25-123	L481606-02	WG5011		
Senzo(k)fluoranthene	mg/kg	0.260	0	.333	78.0	41-116	L481606-02	WG5014		
Senzylbutyl phthalate	mg/kg	0.334	0	.333	100.	45-143	L481606-02	WG5014		
Bis(2-chlorethoxy)methane	mg/kg	0.211	0	.333	63.4	48-108	L481606-02	WG5011		
Bis(2-chloroethyl)ether	mg/kg	0.175	0	.333	52.4	36-115	L481606-02	WG5011		
Bis(2-chloroisopropyl)ether	mg/kg	0.166	0	.333	49.9	44-109	L481606-02	WG5011		
Bis(2-ethylhexyl)phthalate	mg/kg	0.329	0	.333	98.8	40-128	L481606-02	WG5011		
Chrysene	mg/kg	0.243	0	.333	73.0	39-119	L481606-02	WG5011		
Di-n-butyl phthalate	mg/kg	0.322	0	.333	96.6	49-121	L481606-02	WG5014		
Di-n-octyl phthalate	mg/kg	0.312	0	.333	93.8	40-132	L481606-02	WG5014		
Dibenz(a,h)anthracene	mg/kg	0.200	0	.333	59.9	29-123	L481606-02	WG5014		
Diethyl phthalate	mg/kg	0.288	0	.333	86.6	51-113	L481606-02	WG5014		
Dimethyl phthalate	mg/kg	0.277	0	.333	83.3	54-108	L481606-02	WG5011 WG5014		
Fluoranthene	mg/kg	0.268	0	.333	80.3	23-143	L481606-02	WG5011		
luorene	mg/kg	0.257	0	.333	77.2	53-107	L481606-02	WG5011		
Mexachloro-1,3-butadiene	mg/kg	0.174	0	.333	52.4	39-113	L481606-02	WG5014		
lexachlorobenzene	mg/kg	0.267	0	.333	80.1	49-108	L481606-02	WG5011		
Hexachlorocyclopentadiene	mg/kg	0.0719	0	.333	21.6	10-131	L481606-02	WG5014		
lexachloroethane	mg/kg	0.128	0	.333	38.5	25-118	L481606-02	WG5014		
Indeno(1,2,3-cd)pyrene	mg/kg	0.120	0	.333	58.9	28-125	L481606-02	WG5014		
Isophorone	mg/kg	0.208	0	.333	62.3	51-115	L481606-02	WG5011		
n-Nitrosodi-n-propylamine	mg/kg	0.196	0	.333	58.8	54-110	L481606-02	WG5014		
n-Nitrosodimethylamine	mg/kg	0.144	0	.333	43.3	20-116	L481606-02	WG5011		
n-Nitrosodiphenylamine	mg/kg	0.232	0	.333	69.8	54-138	L481606-02	WG5014		
laphthalene	mg/kg	0.178	0	.333	53.4	41-100	L481606-02	WG5014		
litrobenzene	mg/kg	0.167	0	.333	50.0	40-102	L481606-02	WG5014		
Pentachlorophenol	mg/kg	0.168	0	.333	50.5	10-146	L481606-02	WG5011		
henanthrene	mg/kg	0.261	0	.333	78.3	37-125	L481606-02	WG5014 WG5014		
henol	mg/kg	0.168	0	.333	50.6*	52-111	L481606-02	WG5014		
vrene	mg/kg	0.108	0	.333	76.8	22-151	L481606-02	WG5014 WG5014		
,4,6-Tribromophenol	mg/rg	0.200	0		83.75	25-137	H-01000-02	WG5014 WG5014		
2-Fluorobiphenyl					72.54	30-120		WG5014 WG5014		
-Fluorophenol					44.13	26-130		WG5014 WG5014		
litrobenzene-d5					50.46	18-119		WG5014 WG5014		
Phenol-d5					57.80	37-141		WG5014 WG5014		

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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SICILEINICES L·A·B

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Quality Assurance Report Level II

L481739

October 12, 2010

			Matrix Spil	ce.				
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,4-Dichlorobenzene	ppm	0.0660	0	.1	66.0	10-108	L481776-01	WG502030
2,4,5-Trichlorophenol	ppm	0.0709	0	.1	70.9	10-136	L481776-01	WG502030
2,4,6-Trichlorophenol	ppm	0.0772	0	.1	77.2	10-137	L481776-01	WG502030
2,4-Dinitrotoluene	ppm	0.0838	0	.1	83.8	32-137	L481776-01	WG502030
2-Methylphenol	ppm	0.0911	0	.1	91.1	13-110	L481776-01	WG502030
3&4-Methyl Phenol	ppm	0.236	0.100	.1	136.*	10-56	L481776-01	WG502030
Hexachloro-1,3-butadiene	ppm	0.0764	0	.1	76.4	16-118	L481776-01	WG502030
Hexachlorobenzene	ppm	0.0747	0	.1	74.7	41-114	L481776-01	WG502030
Hexachloroethane	ppm	0.137	0	.1	137.*	10-125	L481776-01	WG502030
Nitrobenzene	ppm	0.0704	0	.1	70.4	14-122	L481776-01	WG502030
Pentachlorophenol	ppm	0.0675	0	.1	67.5	0-137	L481776-01	WG502030
Pyridine	ppm	0.0477	0	.1	47.7	0-70	L481776-01	WG502030
2,4,6-Tribromophenol					79.85	10-148		WG502030
2-Fluorobiphenyl					75.67	26-122		WG502030
2-Fluorophenol					52.53	10-87		WG502030
Nitrobenzene-d5					82.04	12-120		WG502030
Phenol-d5					39.10	10-67		WG502030
p-Terphenyl-d14					86.86	34-149		WG502030

		M	Matrix Spik	e Duplicate	2				
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limi	t Ref Samp	Batch
Arsenic	mg/l	1.18	1.17	104.	75-125	0.851	20	L481752-04	WG501428
Barium	mg/l	1.18	1.34	94.3	75-125	0.743	20	L481752-04	WG501428 WG501428
Cadmium	mg/l	1.13	1.11	100.	75-125	1.79	20	L481752-04	WG501428 WG501428
Chromium	mg/1	1.12	1.10	98.9	75-125	1.80	20	L481752-04	WG501428
Lead	mg/l	1.43	1.10	102.	75-125	1.41	20	L481752-04	WG501428
Selenium	mg/l	1.43	1.12	102.	75-125	4.37	20	L481752-04	WG501428 WG501428
Silver	mg/l	1.11	1.08	98.2	75-125	2.74	20	L481752-04	WG501428
311/61	IIIG/1	1.11	1.00	90.2	75-125	2./1	20	LI401/JZ-04	WGJ01420
1,1,1,2-Tetrachloroethane	mg/kg	1.18	1.36	89.7	29-145	14.3	31	L481606-01	WG501535
1,1,1-Trichloroethane	mg/kg	1.41	1.68	107.	23-147	17.5	32	L481606-01	WG501535
1,1,2,2-Tetrachloroethane	mg/kg	1.24	1.34	94.2	18-150	8.11	33	L481606-01	WG501535
1,1,2-Trichloroethane	mg/kg	1.27	1.39	96.5	35-140	9.25	29	L481606-01	WG501535
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	1.48	1.80	113.	10-145	19.3	35	L481606-01	WG501535
1,1-Dichloroethane	mg/kg	1.47	1.72	112.	24-148	15.8	31	L481606-01	WG501535
1,1-Dichloroethene	mg/kg	1.41	1.66	107.	10-149	16.5	34	L481606-01	WG501535
1,1-Dichloropropene	mg/kg	1.44	1.71	110.	10-141	16.8	34	L481606-01	WG501535
1,2,3-Trichlorobenzene	mg/kg	1.27	1.49	96.9	10-129	15.8	43	L481606-01	WG501535
1,2,3-Trichloropropane	mg/kg	1.26	1.34	95.8	30-148	6.21	32	L481606-01	WG501535
1,2,3-Trimethylbenzene	mg/kg	1.40	1.64	107.	10-137	15.8	36	L481606-01	WG501535
1,2,4-Trichlorobenzene	mg/kg	1.31	1.57	99.9	10-119	18.0	44	L481606-01	WG501535
1,2,4-Trimethylbenzene	mg/kg	1.34	1.53	102.	10-145	13.2	41	L481606-01	WG501535
1,2-Dibromo-3-Chloropropane	mg/kg	0.977	1.13	74.4	19-145	14.6	35	L481606-01	WG501535
1,2-Dibromoethane	mg/kg	1.28	1.38	97.9	24-145	7.34	31	L481606-01	WG501535
1,2-Dichlorobenzene	mg/kg	1.35	1.54	103.	12-130	12.8	35	L481606-01	WG501535
1,2-Dichloroethane	mg/kg	1.49	1.66	114.	21-155	10.6	29	L481606-01	WG501535
1,2-Dichloropropane	mg/kg	1.37	1.54	104.	28-144	12.2	30	L481606-01	WG501535
1,3,5-Trimethylbenzene	mg/kg	1.34	1.54	102.	10-135	13.8	39	L481606-01	WG501535
1,3-Dichlorobenzene	mg/kg	1.25	1.43	95.2	10-129	13.3	38	L481606-01	WG501535
1,3-Dichloropropane	mg/kg	1.29	1.41	98.3	31-137	9.14	29	L481606-01	WG501535
1,4-Dichlorobenzene	mg/kg	1.32	1.50	100.	10-121	13.1	36	L481606-01	WG501535
2,2-Dichloropropane	mg/kg	1.41	1.73	107.	18-144	20.8	32	L481606-01	WG501535
2-Butanone (MEK)	mg/kg	6.28	6.79	95.7	21-143	7.86	37	L481606-01	WG501535
2-Chloroethyl vinyl ether	mg/kg	6.45	6.82	98.3	0-176	5.58	50	L481606-01	WG501535
2-Chlorotoluene	mg/kg	1.39	1.58	106.	10-132	12.6	37	L481606-01	WG501535
4-Chlorotoluene	mg/kg	1.34	1.51	102.	10-129	11.6	38	L481606-01	WG501535
4-Methyl-2-pentanone (MIBK)	mg/kg	6.34	6.36	96.6	31-151	0.390	36	L481606-01	WG501535
* Development of this Products in		c .							

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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ESC SICILE NICLES

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Quality Assurance Report Level II

L481739

October 12, 2010

		Matrix Spike D								
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limi	t Ref Samp	Batch	
Acetone	mg/kg	5.80	6.25	88.4	13-158	7.39	34	L481606-01	WG501	
Acrylonitrile	mg/kg	6.48	6.98	98.8	20-154	7.39	35	L481606-01	WG501	
Benzene	mg/kg	1.41	1.63	108.	16-143	14.1	31	L481606-01	WG501	
Bromobenzene	mg/kg	1.37	1.53	104.	14-135	10.7	39	L481606-01	WG501	
Bromodichloromethane	mg/kg	1.28	1.45	97.7	27-139	12.3	30	L481606-01	WG501	
Bromoform	mg/kg	0.924	1.01	70.4	21-144	8.41	34	L481606-01	WG501	
Bromomethane	mg/kg	0.997	1.31	75.9	0-180	27.0	41	L481606-01	WG501	
Carbon tetrachloride	mg/kg	1.24	1.45	94.3	12-149	16.1	34	L481606-01	WG501	
Chlorobenzene	mg/kg	1.31	1.46	100.	17-134	10.8	34	L481606-01	WG501	
Chlorodibromomethane	mg/kg	1.12	1.24	85.3	28-147	10.4	32	L481606-01	WG501	
Chloroethane	mg/kg	0.244	0.316	18.6	0-172	25.8	38	L481606-01	WG501	
Chloroform	mg/kg	1.52	1.75	116.	28-138	13.6	30	L481606-01	WG501	
Chloromethane	mg/kg	1.32	1.57	101.	10-158	17.0	35	L481606-01	WG501	
cis-1,2-Dichloroethene	mg/kg	1.42	1.61	101.	21-147	12.5	31	L481606-01	WG501	
cis-1,3-Dichloropropene	mg/kg	1.29	1.44	98.4	17-145	11.1	32	L481606-01	WG501	
Di-isopropyl ether	mg/kg	1.48	1.64	112.	31-153	10.2	2.9	L481606-01	WG501	
Dibromomethane	mg/kg	1.31	1.45	100.	24-147	9.88	30	L481606-01	WG501	
Dichlorodifluoromethane	mg/kg	1.37	1.70	100.	0-192	21.2	38	L481606-01	WG501 WG501	
Ethylbenzene	mg/kg	1.31	1.46	99.8	12-137	11.1	36	L481606-01	WG501	
Hexachloro-1,3-butadiene	mg/kg	1.28	1.52	97.6	10-123	16.9	50	L481606-01	WG501	
Isopropylbenzene	mg/kg	1.35	1.52	103.	14-134	12.5	37	L481606-01	WG501 WG501	
Methyl tert-butyl ether	mg/kg	1.44	1.58	110.	21-157	9.29	31	L481606-01	WG501	
Methylene Chloride	mg/kg	1.34	1.50	102.	12-149	11.8	31	L481606-01	WG501 WG501	
n-Butylbenzene	mg/kg	1.34	1.76	102.	10-130	18.1	48	L481606-01	WG501 WG501	
n-Propylbenzene	mg/kg	1.37	1.57	104.	10-130	13.9	40	L481606-01	WG501 WG501	
Naphthalene	mg/kg	1.23	1.42	87.6	0-146	14.4	40	L481606-01	WG501 WG501	
-	5.5	1.31	1.53	87.0 99.8	10-131	14.4	43	L481606-01	WG501 WG501	
p-Isopropyltoluene sec-Butylbenzene	mg/kg	1.31	1.53	102.	10-131	15.5	43	L481606-01	WG501 WG501	
-	mg/kg	1.34	1.39	102. 95.3	10-134	10.5	43 35	L481606-01	WG501 WG501	
Styrene	mg/kg						35 39			
tert-Butylbenzene	mg/kg	1.30	1.52	99.2	11-137	15.3	39	L481606-01	WG501	
Tetrachloroethene	mg/kg	1.23	1.42	93.5	10-131	14.6		L481606-01	WG501	
Toluene	mg/kg	1.32	1.48	100.	12-136	11.6	32 33	L481606-01	WG501	
trans-1,2-Dichloroethene	mg/kg	1.37	1.60	104.	10-143	15.5		L481606-01	WG501	
trans-1,3-Dichloropropene	mg/kg	1.30	1.41	99.3	16-147	7.57	32	L481606-01	WG501	
Trichloroethene	mg/kg	1.26	1.52	96.2	10-155	18.4	33	L481606-01	WG501	
Trichlorofluoromethane	mg/kg	1.20	1.63	91.1	10-154	30.5	32	L481606-01	WG501	
Vinyl chloride	mg/kg	1.63	2.00	124.	10-159	20.3	36	L481606-01	WG501	
Xylenes, Total	mg/kg	3.92	4.43	99.6	10-138	12.1	36	L481606-01	WG501	
4-Bromofluorobenzene				98.19	59-140				WG501	
Dibromofluoromethane				107.2	63-139				WG501	
Toluene-d8				101.8	84-116				WG501	
Arsenic	mg/kg	50.4	51.0	82.6	75-125	1.18	20	L481606-02	WG501	
Barium	mg/kg	156.	157.	92.0	75-125	0.639	20	L481606-02	WG501	
Cadmium	mg/kg	41.8	43.7	82.6	75-125	4.44	20	L481606-02	WG501	
Chromium	mg/kg	64.2	64.6	88.4	75-125	0.621	20	L481606-02	WG501	
Lead	mg/kg	47.6	48.9	83.8	75-125	2.69	20	L481606-02	WG501	
Selenium	mg/kg	44.1	43.3	82.2	75-125	1.83	20	L481606-02	WG501	
Silver	mg/kg	42.7	44.4	85.4	75-125	3.90	20	L481606-02	WG501	
Mercury	mg/kg	0.263	0.250	98.4	70-130	5.07	20	L482033-06	WG501	
Mercury	mg/l	0.00287	0.00288	95.7	70-130	0.348	20	L481701-01	WG501	
-		0.00287	0.00288	95.7 81.0	70-130	2.92	20	L481701-01 L481705-01	WG501 WG501	
Mercury	mg/l	0.00243	0.00∠36	01.0	10-130	2.92	∠0	T40T/02-0T	wG501	

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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YOUR LAB OF CHOICE

MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

			trix Spike	-					
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,1-Dichloroethene	mg/l	1.12	1.11	89.3	10-162	0.640	23	L481701-01	WG5017
1,2-Dichloroethane	mg/1	1.27	1.26	102.	29-167	0.860	21	L481701-01	WG5017
2-Butanone (MEK)	mg/l	6.37	6.44	102.	32-151	1.18	26	L481701-01	WG5017
Benzene	mg/l	1.36	1.35	108.	16-158	0.610	21	L481701-01	WG5017
Carbon tetrachloride	mg/l	1.37	1.35	109.	22-168	1.44	24	L481701-01	WG5017
Chlorobenzene	mg/1	1.32	1.24	106.	33-148	6.80	22	L481701-01	WG5017
Chloroform	mg/l	1.24	1.24	99.4	37-147	0.0600	21	L481701-01	WG5017
Tetrachloroethene	mg/1	1.14	1.12	91.6	13-157	2.59	24	L481701-01	WG5017
Frichloroethene	mg/l	1.20	1.23	96.0	18-163	2.64	21	L481701-01	WG5017
Vinyl chloride	mg/l	1.19	1.29	95.3	0-179	7.82	26	L481701-01	WG5017
4-Bromofluorobenzene	-			101.3	75-128				WG5017
Dibromofluoromethane				108.1	79-125				WG5017
Coluene-d8				105.9	87-114				WG5017
a,a,a-Trifluorotoluene				99.13	84-114				WG5017
1,1-Dichloroethene	mg/l	1.05	0.999	84.2	10-162	5.30	23	L481705-01	WG50176
,2-Dichloroethane	mg/l	1.23	1.13	98.0	29-167	8.24	21	L481705-01	WG50176
2-Butanone (MEK)	mg/l	6.40	5.98	102.	32-151	6.82	26	L481705-01	WG50176
Benzene	mg/l	1.28	1.21	102.	16-158	5.74	21	L481705-01	WG50176
Carbon tetrachloride	mg/l	1.29	1.22	103.	22-168	5.87	24	L481705-01	WG50176
Chlorobenzene	mg/l	1.23	1.17	98.6	33-148	5.26	22	L481705-01	WG50176
Chloroform	mg/l	1.20	1.14	96.1	37-147	5.43	21	L481705-01	WG50176
Tetrachloroethene	mg/l	1.14	1.05	91.2	13-157	7.97	24	L481705-01	WG50176
Trichloroethene	mg/l	1.17	1.18	93.7	18-163	0.960	21	L481705-01	WG50176
Vinyl chloride	mg/l	1.14	1.17	91.1	0-179	2.41	26	L481705-01	WG50176
1-Bromofluorobenzene				103.3	75-128				WG50176
Dibromofluoromethane				111.4	79-125				WG50176
Toluene-d8				106.2	87-114				WG50176
a,a,a-Trifluorotoluene				99.50	84-114				WG50176
1,2,4-Trichlorobenzene	mq/kq	0.184	0.159	55.3	37-104	14.9	26	L481606-02	WG50140
2,4,6-Trichlorophenol	mg/kg	0.273	0.250	82.0	27-128	8.82	31	L481606-02	WG50110
2,4-Dichlorophenol	mg/kg	0.251	0.228	75.5	39-116	9.76	23	L481606-02	WG50140
2,4-Dimethylphenol	mg/kg	0.255	0.235	76.6	50-119	8.09	27	L481606-02	WG50110
2,4-Dinitrophenol	mg/kg	0.0417	0.0360	12.5	10-123	14.7	42	L481606-02	WG50140
2,4-Dinitrotoluene	mg/kg	0.284	0.255	85.2	52-121	10.6	23	L481606-02	WG50140
2,6-Dinitrotoluene	mg/kg	0.267	0.252	80.0	53-114	5.70	22	L481606-02	WG50140
2-Chloronaphthalene	mg/kg	0.232	0.230	69.6	52-101	0.659	20	L481606-02	WG50140
2-Chlorophenol	mg/kg	0.176	0.153	52.8	41-112	13.8	27	L481606-02	WG50140
2-Nitrophenol	mg/kg	0.232	0.192	69.8	23-117	19.2	31	L481606-02	WG5014
3,3-Dichlorobenzidine	mg/kg	0.178	0.185	53.4	10-133	3.73	41	L481606-02	WG50140
4,6-Dinitro-2-methylphenol	mg/kg	0.133	0.122	39.9	10-124	8.78	38	L481606-02	WG50140
4-Bromophenyl-phenylether	mg/kg	0.294	0.282	88.4	37-103	4.27	23	L481606-02	WG50140
4-Chloro-3-methylphenol	mg/kg	0.300	0.274	90.1	52-119	9.06	24	L481606-02	WG50140
4-Chlorophenyl-phenylether	mg/kg	0.277	0.257	83.2	53-105	7.51	20	L481606-02	WG5014
1-Nitrophenol	mg/kg	0.246	0.226	73.9	15-140	8.71	40	L481606-02	WG5014
Acenaphthene	mg/kg	0.267	0.242	80.2	52-102	9.74	23	L481606-02	WG5014
Acenaphthylene	mg/kg	0.265	0.257	79.5	54-103	3.18	22	L481606-02	WG5014
Anthracene	mg/kg	0.287	0.266	86.2	55-114	7.79	21	L481606-02	WG5014
Benzidine	mg/kg	0	0.000124		0-45	200.*	50	L481606-02	WG5014
Benzo(a)anthracene	mg/kg	0.254	0.240	76.2	37-124	5.67	33	L481606-02	WG5014
Benzo(a)pyrene	mg/kg	0.266	0.247	79.8	44-129	7.17	27	L481606-02	WG5014
Senzo(b)fluoranthene	mg/kg	0.263	0.242	78.9	28-135	8.05	33	L481606-02	WG5014
Senzo(g,h,i)perylene	mg/kg	0.182	0.169	54.6	25-123	7.64	35	L481606-02	WG5014
<pre>Benzo(k)fluoranthene</pre>	mg/kg	0.280	0.260	84.0	41-116	7.50	34	L481606-02	WG5014
Benzylbutyl phthalate	mg/kg	0.342	0.334	103.	45-143	2.50	39	L481606-02	WG5014
Bis(2-chlorethoxy)methane	mg/kg	0.230	0.211	69.0	48-108	8.42	23	L481606-02	WG5014
	mg/kg	0.207	0.175	62.0	36-115	16.7	30	L481606-02	WG50140
Bis(2-chloroethyl)ether	IIIQ/KQ			02.0	20-112	10./			

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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YOUR LAB OF CHOICE

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Louisville, KY 40223

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Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

		Ma	trix Spik	e Duplicate					
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batcl
Bis(2-ethylhexyl)phthalate	mg/kg	0.341	0.329	102.	40-128	3.63	34	L481606-02	WG501
Chrysene	mg/kg	0.256	0.243	76.7	39-119	4.94	31	L481606-02	WG501
Di-n-butyl phthalate	mg/kg	0.344	0.322	103.	49-121	6.80	22	L481606-02	WG503
Di-n-octyl phthalate	mq/kq	0.326	0.312	98.0	40-132	4.43	27	L481606-02	WG50
Dibenz(a,h)anthracene	mq/kq	0.211	0.200	63.3	29-123	5.52	30	L481606-02	WG50
Diethyl phthalate	mg/kg	0.311	0.288	93.5	51-113	7.69	21	L481606-02	WG50
Dimethyl phthalate	mg/kg	0.294	0.277	88.3	54-108	5.79	23	L481606-02	WG50
Fluoranthene	mg/kg	0.288	0.268	86.4	23-143	7.20	29	L481606-02	WG50
Fluorene	mq/kq	0.275	0.257	82.5	53-107	6.70	22	L481606-02	WG50
Hexachloro-1,3-butadiene	mg/kg	0.209	0.174	62.9	39-113	18.2	26	L481606-02	WG50
Hexachlorobenzene	mg/kg	0.282	0.267	84.5	49-108	5.43	27	L481606-02	WG50
Hexachlorocyclopentadiene	mg/kg	0.0819	0.0719	24.6	10-131	13.0	39	L481606-02	WG50
Hexachloroethane	mq/kq	0.141	0.128	42.3	25-118	9.47	35	L481606-02	WG50
Indeno(1,2,3-cd)pyrene	mg/kg	0.212	0.196	63.7	28-125	7.83	32	L481606-02	WG50
Isophorone	mg/kg	0.228	0.208	68.5	51-115	9.40	22	L481606-02	WG50
n-Nitrosodi-n-propylamine	mg/kg	0.213	0.196	63.9	54-110	8.41	23	L481606-02	WG50
n-Nitrosodimethylamine	mg/kg	0.170	0.144	51.2	20-116	16.7	38	L481606-02	WG50
n-Nitrosodiphenylamine	mg/kg	0.253	0.232	75.9	54-138	8.38	26	L481606-02	WG50
Naphthalene	mg/kg	0.201	0.178	60.3	41-100	12.2	26	L481606-02	WG50
Nitrobenzene	mg/kg	0.182	0.167	54.8	40-102	9.06	24	L481606-02	WG50
Pentachlorophenol	mg/kg	0.184	0.168	55.4	10-146	9.25	35	L481606-02	WG50
Phenanthrene	mg/kg	0.283	0.261	85.0	37-125	8.25	27	L481606-02	WG50
Phenol	mg/kg	0.196	0.168	58.8	52-111	15.0	22	L481606-02	WG50
Pyrene	mg/kg	0.266	0.256	79.9	22-151	3.93	38	L481606-02	WG50
2,4,6-Tribromophenol		0.200	0.250	89.23	25-137	5.95	50	1101000 02	WG50
2-Fluorobiphenyl				74.45	30-120				WG50
2-Fluorophenol				50.21	26-130				WG50
Nitrobenzene-d5				58.35	18-119				WG50
Phenol-d5				65.51	37-141				WG50
p-Terphenyl-d14				102.5	23-143				WG50
l,4-Dichlorobenzene	ppm	0.0674	0.0660	67.4	10-108	2.07	50	L481776-01	WG50
2,4,5-Trichlorophenol	ppm	0.0766	0.0709	76.6	10-136	7.72	45	L481776-01	WG50
2,4,6-Trichlorophenol	ppm	0.0760	0.0772	76.0	10-137	1.56	42	L481776-01	WG50
2,4-Dinitrotoluene	ppm	0.0857	0.0838	85.7	32-137	2.30	36	L481776-01	WG50
2-Methylphenol	ppm	0.0881	0.0911	88.1	13-110	3.36	23	L481776-01	WG50
&4-Methyl Phenol	ppm	0.213	0.236	113.*	10-56	10.6	36	L481776-01	WG50
Hexachloro-1,3-butadiene	ppm	0.0759	0.0764	75.9	16-118	0.549	50	L481776-01	WG50
Hexachlorobenzene	mqq	0.0758	0.0747	75.8	41-114	1.43	28	L481776-01	WG50
Iexachloroethane	mqq	0.145	0.137	145.*	10-125	5.69	50	L481776-01	WG50
litrobenzene	ppm	0.0735	0.0704	73.5	14-122	4.34	46	L481776-01	WG50
Pentachlorophenol	ppm	0.0695	0.0675	69.4	0-137	2.82	50	L481776-01	WG50
Pyridine	ppm	0.0463	0.0477	46.3	0-70	2.96	50	L481776-01	WG50
4,6-Tribromophenol				77.43	10-148				WG50
-Fluorobiphenyl				73.57	26-122				WG50
2-Fluorophenol				48.70	10-87				WG50
Jitrobenzene-d5				83.71	12-120				WG50
Phenol-d5				37.83	10-67				WG50
p-Terphenyl-d14				102.7	34-149				WG50

Batch number /Run number / Sample number cross reference

WG501205: R1407348: L481739-01 WG501428: R1407549: L481739-01 WG501535: R1409488: L481739-02 WG501220: R1409609: L481739-02 WG501526: R1411030: L481739-01 * Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

WG501286: R1411968: L481739-02 WG501461: R1412008: L481739-01 WG501407: R1413168: L481739-02 WG501769: R1413288: L481739-01 WG502030: R1419251: L481739-01 WG502533: R1421365: L481739-01 12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L481739

October 12, 2010

* Calculations are performed prior to rounding of reported values .
 * Performance of this Analyte is outside of established criteria.
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Page 27 of 28



YOUR LAB OF CHOICE MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

Quality Assurance Report Level II

L481739

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

> Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier. 12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

October 12, 2010

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17	Standard Rush (surcharges may apply) ate Needed: <u>10/4/10</u> ax Results: Y	le Sampled	Time Sampled	: Grab, C = Composite	d Filtered	 Skudge DW - Drinking Watel Grounttwater S - Soil/Solid Mastewater Specify Other 	0,	HCI	H	hanol		Other (Specify)	197		8 8.0	124 (34)	100		Relation					None Level 2 (Batch QC Level 3 Level 4 Other: V 8/73 C	,	300
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12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Scott Kelly MACTEC - Louisville, KY 13425 Eastpoint Center Dr. Ste. 122 Louisville, KY 40223

Report Summary

Monday October 11, 2010

Report Number: L482531 Samples Received: 10/01/10 Client Project: 6680-08-9635

Description: RBTC 500 VAC Louisville

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Luchi Auto

Leslie Newton , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487 GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140 NJ - TN002,NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233 AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A, TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences. Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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Mr. Scott Kelly MACTEC - Louisville 13425 Eastpoint Cen Louisville, KY 402:	nter Dr. Ste. 122	REI	PORT OF ANAL	YSIS	Oc	tober 11	,2010	
Date Received : Description : Sample ID : Collected By : Collection Date :	RBTC 500 VAC Loui EAST SHOP SUMP Scott Kelly				Si	C Sample te ID : oject :	# : L482531-01 6680-08-9635	
Parameter		Result	Det. Limit	Units	Limit	Method	Date/Time By I	Dil
TCLP Extraction		-				1311	10/09/10 0801 MVE 1	1
Mercury		BDL	0.0020	mg/l	0.20	7470A	10/09/10 2018 WC 2	2
Arsenic Barium Cadmium Chromium Lead Selenium Silver		BDL 18. BDL BDL 0.32 BDL BDL	0.25 0.75 0.25 0.25 0.25 0.25 0.25 0.25	mg/l mg/l mg/l mg/l mg/l mg/l	5.0 100 1.0 5.0 5.0 1.0 5.0	6010B 6010B 6010B 6010B 6010B 6010B 6010B	10/10/10 0924 ARF 5 10/10/10 0924 ARF 5	5 5 5 5 5 5

BDL - Below Detection Limit Det. Limit - Estimated Quantitation Limit(EQL) Limit - Maximum Contaminant Level as established by the US EPA Note: The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 10/10/10 19:05 Revised: 10/11/10 10:01

Page 2 of 7

Attachment A List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L482531-01	WG502354	SAMP	TCLP Extraction	R1420811	W2
	WG502567	SAMP	Mercury	R1419812	OJ3J6
	WG502607	SAMP	Arsenic	R1420289	0
	WG502607	SAMP	Cadmium	R1420289	0
	WG502607	SAMP	Selenium	R1420289	0

Page 3 of 7

Attachment B Explanation of QC Qualifier Codes

Qualifier	Meaning
0	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
J3	The associated batch QC was outside the established quality control range for precision.
W2	(ESC) - Insufficient sample amount to perform method as required. Sample amount approved per client instruction.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

- Precision The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.
- Surrogate Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Page 4 of 7

Summary of Remarks For Samples Printed 10/11/10 at 10:01:25

TSR Signing Reports: 044 R5 - Desired TAT

Alison's direct dial 859-566-3729

Sample: L482531-01 Account: MACTECLOU Received: 10/01/10 09:00 Due Date: 10/13/10 00:00 RPT Date: 10/10/10 19:05 Relogged from L481739-02

L·A·B SICILEINICIES

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Louisville, KY 40223

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Quality Assurance Report Level II

L482531

October 11, 2010

		Labora	tory Blan	k						
Analyte	Result	Units	-	Rec		Limit		Batch	Date	Analyzed
Mercury	< .0002	mg/l						WG502567	10/09	/10 17:3
Arsenic	< .05	mg/l						WG502607	10/10	/10 08:14
Barium	< .15	mg/l								/10 08:1
Cadmium	< .05	mg/l								/10 08:1
Chromium	< .05	mg/l								/10 08:1
Lead	< .05	mg/l						WG502607	10/10	/10 08:1
Selenium	< .05	mg/l						WG502607	10/10	0/10 08:1
Silver	< .05	mg/l						WG502607	10/10	0/10 08:1
		Du	plicate							
Analyte	Units	Result	Duplicat	e F	RPD	Limit		Ref Sam	р	Batch
Mercury	mg/l	0	0	()	20		L482531	-01	WG50256
Barium	mg/l	0.310	0.308	(.325	20		L482646	-02	WG50260'
Cadmium	mg/l	0	0	(20		L482646		WG50260
Chromium	mg/1	0	0.00850		JA	20		L482646		WG50260
Silver	mg/l	0	0.00490		IA	20		L482646		WG50260
Lead	mg/l	0	0	()	20		L482646	-02	WG50260
		Laboratory	Control	Sample	2					
Analyte	Units	Known Val		Resul	.t	% Rec		Limit		Batch
Mercury	mg/l	.003	0	.00263	3	87.7		85-115		WG50256
Arsenic	mg/l	1.13	1	.10		97.3		85-115		WG50260'
Barium	mg/l	1.13	1	.10		97.3		85-115		WG50260
Cadmium	mg/1	1.13	1	.12		99.1		85-115		WG50260
Chromium	mg/l	1.13	1	.13		100.		85-115		WG50260
Lead	mg/l	1.13	1	.13		100.		85-115		WG50260
Selenium	mg/l	1.13		.11		98.2		85-115		WG50260
Silver	mg/l	1.13	0	.987		87.3		85-115		WG50260
			ix Spike							
Analyte	Units	MS Res Re	f Res	TV	% Rec	Limit		Ref Samp		Batch
Mercury	mg/l	0.00304 0		0015	101.	70-130)	L482531-	01	WG50256
Barium	mg/l	1.28 0.	308 1	.13	86.0	75-125		L482646-	02	WG50260
Cadmium	mg/l	1.03 0	1	.13	91.2	75-125	5	L482646-	02	WG50260
Chromium	mg/l	1.10 0.	00850 1	.13	96.6	75-125		L482646-	02	WG50260
Silver	mg/l	0.600 0.	00490 1	.13	52.7*	75-125		L482646-	02	WG50260
Lead	mg/l	1.16 0	1	.13	20.5*	75-125	1	L482646-	02	WG50260
		Matrix Sp	-	cate						
Analyte	Units	MSD Ref	%Rec		Limit	RPD	Limit	Ref Samp		Batch
Mercury	mg/l	0.000460 0.003	04 15.3*		70-130	147.*	20	L482531-	01	WG50256
Barium	mg/l	1.35 1.28	92.2		75-125	5.32	20	L482646-	02	WG50260
Cadmium		1.09 1.03	96.5		75-125	5.66	20	L482646-		WG50260
Chromium		1.15 1.10	101.		75-125	4.44	20	L482646-		WG50260
Silver		0.863 0.600			75-125	36.0*	20	L482646-		WG50260

* Performance of this Analyte is outside of established criteria. For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Page 5 of 7



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13425 Eastpoint Center Dr. Ste. 122	Quality Assurance Report Level II	
Louisville, KY 40223	L482531	October 11, 2010

		Mat	trix Spike	Duplicate					
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Lead	mg/l	1.11	1.16	19.6*	75-125	4.41	20	L482646-02	WG502607

Batch number /Run number / Sample number cross reference

WG502567: R1419812: L482531-01 WG502607: R1420289: L482531-01 WG502354: R1420811: L482531-01

* Calculations are performed prior to rounding of reported values .
 * Performance of this Analyte is outside of established criteria.
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Page 6 of 7



YOUR LAB OF CHOICE MACTEC - Louisville, KY Mr. Scott Kelly 13425 Eastpoint Center Dr. Ste. 122

Louisville, KY 40223

Quality Assurance Report Level II

L482531

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

> Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier. 12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

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October 11, 2010

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Jonah Huckabay

(482531

From:Leslie NewtonSent:Wednesday, October 06, 2010 4:21 PMTo:Login; TCLPSubject:L481739-02 MACTECLOU

High

Importance:

Attachments: COCL481739

Client needs this re-logged for TCLP Metals. Please put on a different L # than the samples in-house.



(137 KB)

Thomas Andres

Leslie Newton Sr. Technical Service Representative ESC Lab Sciences 12065 Lebanon Rd. Mt. Juliet, TN 37122 615-773-9670 http://www.myesc.esclabsciences.com

WASTE DISPOSAL AND BACKFILL DOCUMENTATION

CONCRETE DEBRIS

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Stop Ticket Stop#: 1282271-9000 Trip#: 9 42027	Pick-up: 10/13/10						1 of 1
Site#: 127503	Miles: 252						
EPA ID#: KYD074075441 PO#: DL1012	Internal Contact BILLIE DZUNDA	(877)381- 2341					
Mailing Address			Site Addre	S S			(None)
DAVID LUEPKE ROBERT BOSCH TOO 1800 WEST CENTRAL MOUNT PROSPECT, I UNITED STATES	ROAD		ROBERT E 500 EAST LOUISVILI UNITED S	MAIN STI .E, KY 40	REET	RP	(
	; (8000) (317)486-2 US DOT#: 314460 [⊃] ickup Demurrage <i>∠</i> 2	2973		DACH, DA		70)259	9-4081
Tractor#_3/2	icitup Demonage	Trailer#	Final Delivery De	murrage_			
Liner Qty1 Pump	/Hose		T_20-08	RO# TC	. нт	·	
PICKUP TIME: 07:00-17:00		RO# TO G		RO# TC	and any second s		
Stop TypeLIVE LOAD Driver#_ <i>4895</i> _	Driver Name	_OPEN TOP		20	Date //	Liner	Qty
HERITAGE ENVIRONMENTAL 7901 WEST MORRIS STREET, P/U	SERVICES LLC (90 , INDIANAPOLIS, IN	00) 46231 UNITED STA	TES		IN	D0932	219012 3-0811
Items Common Name	····	See Manifest	Transaction	Prod	Ref#	Ord	Турө
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SPL INSTRS: SITE CONTACT		240*2438					

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	ease print or type. (Fo	nous 1.G	enerator ID Number		2. Page 1 of	3. Emergency Respo	inse Phone	4. Manifest	Forr t Tracking N	n Approved. C	OMB No.	2050-003
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	MOUNT PRO	ISPECT.	IL 60056 232-2201			500 EAST N	E KY AC	REET)202				
	Generator's Phone: 6. Transporter 1 Comp					GEN: 12750						
	HERITAGE		ORT, LLC					U.S. EPAID	Number 584841	1.4		
	7. Transporter 2 Comp	pany Name						U.S. EPAID		14		
	8. Designated Facility	Name and Site	Sidner									
	HERITAGE 7901 WEST	ENVIRO	NMENTAL SEE	WICES LLC				U.S. EPA ID	Number		-	
	INDIANAPO	LIS, I	N 46231					IND09	32190	12		
	Facility's Phone:		243-0811	lana Maria (Ali			r					
	96. 95. U.S. DOT HM and Packing C	Group (if any))	cuaing Proper Snipping I	lame, Hazard Class, ID Numb	er,	10. Con No.	tainers Type	11. Total Quantity	12. Unit WL/Vol.	13. Wa	iste Codes	5
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GENERATOR	P.PGIII	, (FÓÓ7)	ERG#171	HOIC, OULID,	N.U.S.,	1	41	74	4	E007		
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	14. Solicial Handling In	stautions and										
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	I certify that the wa	aste minimizatio	on statement identified in	40 CFR 262.27(a) (if I am a lar							,	
l	Generator's/Offeror's Pr		me wind ill	PREAL	Signa	Maicha	A	1.	,	Month	Day	Year
<u>-</u>	16. International Shipme	ents	Import to U.S.	· LOON TOOL	Export from U.S	mina		udill		10	13	10
	Transporter signature (fi):			5. Port of er Date leav			· · · · · · · · · · · · · · · · · · ·			
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2		Eric	540	TT	1	2	•	lo	t	10	Day	Year
L AN	Trapsporter 2 Printed/Ty	ped Name	-		Signat	ure				Month	Day	Year
-	18. Discrepancy											
	18a. Discrepancy Indicat	tion Space	Quantity	• Туре		Residue	Γ	Partial Rejec	tion		" F	
							L	ir aruan KƏğƏC		∟_]F	ull Rejectio	on
	18b. Alternate Facility (or	Generator)			<u> </u>	Manifest Reference		U.S. EPA ID Nur	nber			
	.											
	Facility's Phone: 18c. Signature of Alternat	te Facility (or G	enerator)				l			\$ 5 44		
										Month	Day	Year
	19. Hazardous Waste Re 1.	port Managem	ent Method Codes (i.e., c	odes for hazardous waste treat		d recycling systems)		·····			L	
1		H12			3.			4.				
	20. Designated Facility O	wher or Operat	or: Certification of receipt	of hazardous materials covera	i of by the manifest	except as noted in Item	18a	l				
ľ	Printed/Typed Name	Ď		1 1.11	Signatu	re A				Month	Day	Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. $\mathcal{N}^{(1)}$

GENERATOR

TR ANSPORTER INT'L

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DESIGNATED FACILITY

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DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

						at a market
ł	CHE	RITAG	$E \mathcal{E}$	ric s	- 1 0	
Skop-Ticket	ENVIRO	INMENTAL SERV	ACES			
Stop#: 1282270-9000		/10				
Trip#: 942026	Pick-up: 10/13/10 - 10/13					· · · · · · · · · · · · · · · · · · ·
Site#: 127503	Miles: 252					
EPA ID#: KYD074075441 PO#: DL1012	Internal Contact BILLIE DZUNDA (877)38	31-2341			(1)	ione)
			Site Address			,
Mailing Address			ROBERT BOS 500 EAST MA	IN STREE	T	
DAVID LUEPKE ROBERT BOSCH TOOL	COBP		LOUISVILLE,	KY 40202		
1800 WEST CENTRAL MOUNT PROSPECT, IL			UNITED STA	TES		
UNITED STATES			Phone# (224 ROA	I)232-2201 CH, DAVID) - (270)259-	4081
	(8000) (317)486-2973					
HERITAGE TRANSPORT, LLC	US DOT#: 314460					
IND058494114	Pickup Demurrage 120	MOU "	Final Delivery Dem			
Emergency haw		Trailer#	20-24		T	
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PPE: GLVS,GOGLS,APROR SPL INSTRS: SITE CONTA	CT SCOTT KELLY 502/64	4		,	1.1	
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2. w						
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DRUMMED WASTE

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print or type. (Form designed for use on elite (12-pitch) typewriter.) NIFORM HAZARDOUS 1. Generator ID Number WASTE MANIFEST	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	rgency Response		4. Manifest 1	racking Nu	umber 37409	OMAS	, }
Generator's Name and Mailing Address POBERT BOSCH TODI. CORF / DHVID LUEFRE 1600 HEST CENTRAL PUAD NOUNT PROSPECT, 11 60056 (224)232-72001 enerator's Phone:	806 SCN L.DL	or's Site Address (H 100 HN 51 KY 4	RAET 0202	/ 1949-	IG LUE	entradoaria CHE CHIER CHIER	so intel Steplet Stepři († Stýkt t
Transporter 1 Company Name HEFITAGE-TRANSPORT, LLD		anal hyn gant medd anal hyn gant medd	santa Jarada Consigna ap	U.S. EPAID N	38.4 <i>5</i> :4	<u>114</u>	ali - Marana Aliyayanyah Aliyayanyah	interioù Ny ioniù Lonnoù M
Transporter 2 Company Name Designated Facility Name and Site Address			nen fin soli Tusto († 1777)	U.S. EPA ID N		rini kongenti gen de Stanij generatione	and and and and and and and and and and	der die en werden der werden der
HERITAGE ENVIRONMENTAL SERVICEB LLC 7901 WEST NORRIS STREET INDIAMAPOLIS, IN 44231 acility's Phone: (317)243-0811			28943 	INDO		012		
a. 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, M and Packing Group (if any))		10. Contair No.	ners Type	11. Total Quantity	12. Unit Wt./Vol.	13. \	Waste Cod	es
(RD_NADO77_NAZARDOLS WASTE, SOLID, N. 2,PG111,(F007),EPG#171	.0.5.,	002	Рм	ditect (170) 170-j (170-0) 11-0	G	<u>F(s)7</u>	alina se <u>alina se</u> alina se alina se	
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NOTICE AND CERTIFICATION



Generator Name: ROBERT BOSCH TOOL CORP Manifest Tracking No.: 000374090WAS EPA I.D. No.: KYD074075441

(1) Waste Does Not Meet Applicable Treatment Standards: This is a restricted waste that does not meet the applicable treatment standards set forth in Subpart D of 40 CFR Part 268.

I certify that the information provided on this and any additional pages of this LDR notification is true, accurate and complete.

Authorized	Signature: Jon Room	Print Na	me: <u>] </u>	D RUM	104
Company	Title: <u>B14.5.</u>	Date:	12/17/	<u>с</u>	
(1) Manifest Page/Line	(2) Hazardous Waste Codes	(3) Wastewater Or Non Wastewater	(4) Subcategory (if applicable)	(5) Underlying Constituents	(6) Applicable Certification
1.1	F007	NWW		NA	1
1.2	F007	NWW		NA	1

WASTEWATER

Nov. 8. 2010 10:31AM MSD CMF IWD



No. 5362 P. 1/2

Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville, KY 40203-1911 502-540-6000 www.msdlouky.org

November 08, 2010

FAX 224 232-2702

Mr, David Luepke Robert Bosch Tool Corporation 1800 West Central Road Mount Prospect, IL 60056

Subject: U.D.R. # 28895 – Approximately 160 gallons of wastewater that was generated from sampling and cleanup activities related to groundwater monitoring wells at 500 E. Main St., Louisville, Ky, 40202.

Dear Mr. Luepke:

This correspondence approves your request to discharge the above referenced material to an on-site combined sewer connection. The discharge window is from November 8 through 24, 2010. The terms of your approval are listed below.

The Standard Terms of your approval are as follows:

- screen/remove grit prior to discharge;
- if IWD inspection of the material prior to or during discharge reveals a violation of
 MSD's Wastewater Discharge Regulations, and/or the conditions outline herein, approval will be revoked and not reinstated until corrective action is taken;
- failure to comply with MSD Wastewater Discharge Regulations or violations of conditions outlined herein may result in enforcement action;
- should MSD determine at any time that the discharge herein approved may cause an adverse effect to MSD operations, including but not limited to WDR Sections 2.01(a)(7), Danger to life or safety of any person; 2.01(a)(8), A strong or offensive odor which prevents the effective maintenance or operation of the treatment works; or 2.01(a)(10), Interference with operation, maintenance or performance of the treatment works, this approval may be revoked.



Beneficial Use of Louisville's Blosolids www.louisvillegreen.com

No. 5362 P. 2/2

Mr. David Luepke November 8, 2010 Page 2

In addition, the following Special Conditions shall apply to this discharge:

- any discharges into this combined sewer system should not exceed 50 gpm;
- no discharge is allowed within 72 hours of a .3 inches or greater precipitation event within a 24 hour moving window.

Please call me at 540-6910 if you have any questions or if the discharge cannot be completed in the above specified discharge time.

Sincerely,

10h / 1 5

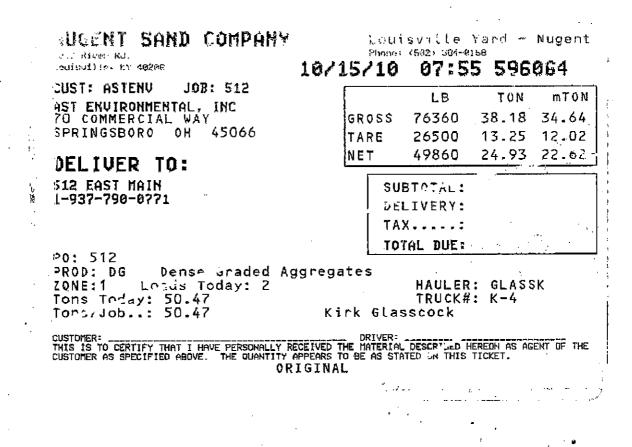
Lisa A. Gaus Emergency Response Pretreatment Administrator

glk/LAG 2010 11 02 Robt Bosch MACTEC UDR 28895

cc: UDR file

Scott Kelly, MACTEC Engineering & Consulting, Inc., 13425 Eastpoint Centre Dr., Ste. 122, Louisville, Ky. 40223, ph. 502 253-2541 fax 502 253-2501

BACKFILL DOCUMENTATION



NUGENT SAND COMPANY

1833 River Rd. Louisville, NY 40295

CUST: ASTENV JOB: 512 AST ENVIRONMENTAL, INC 70 COMMERCIAL WAY SPRINGSBORO OH 45066

DELIVER TO: 512 EAST MAIN 1-937-790-0771

Louisville Yard - Nugent Phone: (502) 504-0150

10/15/10 07:25 596058

	LB	TON	mTON
GROSS	77580	38.79	35.19
TARE	26500	13.25	12-02
NET	51080	25.54	27

SUBTOTAL: DELIVERY: TAX.....

TOTAL DUE:

P0: 512		
PROD: DG Dense Graded	Aggregates	
ZONE:1 Loads Today: 1	HAULER:	
Tons Today: 25.54	TRUCK#:	K-4
Tons/Job: 25.54	Kirk Glasscock	

CUSTOMER: THIS IS TO CERTIFY THAT I HAVE PERSONALLY RECEIVED THE MATERIAL DESCRIBED MERSON AS AGENT OF THE CUSTOMER AS SPECIFIED ABOVE. THE QUANTITY APPEARS TO BE AS STATED ON THIS TICKET. ORIGINAL