Limited Waste Removal Action Report
Red Devil Mine
Red Devil, Alaska

November 19, 1999

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Prepared for

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CONTENTS

1.0 INTRODUCTION 1

1.1 Scope of Work 1
1.2 Site Description 1
1.3 Background 2

2.0 FIELD INVESTIGATION 2

2.1 Deviations from the Work Plan 2
2.2 Field Procedures 3

2.2.1 Field-Screening Procedures 3
2.2.2 Soil Investigation 3
2.2.3 Surface-Water Investigation 3
2.2.4 Sediment Investigation 4
2.2.5 Decontamination Procedures 4

2.3 Waste Removal and Site Characterization Activities 4

2.3.1 Background Metals 4
2.3.2 Battery Storage 4
2.3.3 Transformer Areas 5
2.3.4 Drum Areas 5
2.3.5 Retort Building 5
2.3.6 Chemical Storage Area 6
2.3.7 Tailings Piles 6
2.3.8 Settling Ponds 6
2.3.9 Red Devil Creek 6
2.3.10 Kuskokwim River 7

3.0 ANALYTICAL PROGRAM 7

4.0 DATA QUALITY ASSESSMENT 7

5.0 ANALYTICAL RESULTS 7

5.1 Cleanup Levels 7
5.2 Background Metals 7
5.3 Battery Storage 8
5.4 Transformer Areas 8
5.5 Drum Areas 8
5.6 Retort Building 8

CONTENTS (continued)

5.7 Chemical Storage Area 9
5.8 Tailings Piles 9
5.9 Settling Ponds 9
5.10 Red Devil Creek 9
5.11 Kuskokwim River 10

6.0 CONCLUSIONS 11

6.1 Background Metals 11
6.2 Battery Storage 12
6.3 Transformer Areas 12
6.4 Drum Area 12
6.5 Retort Building 12
6.6 Chemical Storage Area 12
6.7 Tailings Piles 12
6.8 Settling Ponds 13
6.9 Red Devil Creek 13
6.10 Kuskokwim River 13

7.0 BIBLIOGRAPHY 13

TABLES

1 Waste Removal and Characterization Summary
2 Soil Analytical Results
3 Surface-Water Analytical Results
4 Sediment Analytical Results

FIGURES

1 Site Location and Vicinity Map
2 Site Plan with Sampling Locations
3 Selected Results for Samples Collected near the Retort Building

APPENDIXES

A Photographs
B Materials Tracking/Disposal Log
C Analytical Laboratory Reports
D Data Quality Assessment

DISTRIBUTION

1.0 INTRODUCTION

The Bureau of Land Management (BLM), Alaska State Office, retained Harding Lawson Associates/Wilder Construction Company Joint Venture (HLA/Wilder) to conduct limited waste removal and characterization activities at the former Red Devil Mine facilities near Red Devil, Alaska (Figure 1). The scope of work (SOW) was assigned to HLA/Wilder under Delivery Order 0014 of Contract 1422-N660-C97-3025. This report documents the field activities, analytical results, and conclusions.

The field program for this investigation followed the SOW and procedures presented in HLA/Wilder's work plan (WP) titled *Limited Waste Removal Work Plan, Red Devil Mine, Red Devil, Alaska* (HLA/Wilder, 1999). Deviations from the WP are summarized in Section 2.1. Companion documents to the WP include the *Quality Assurance Program Plan, Hazardous Materials Removal Actions, Various Locations, Alaska* (QAPP) (HLA/Wilder, 1997b); *Safety and Health Plan, Hazardous Materials Removal Actions, Various Locations, Alaska* (SHP) (HLA/Wilder, 1997a); and a letter to Mr. Joseph Bogus, dated July 9, 1999, amending the program SHP for site-specific conditions expected during this investigation.

1.1 Scope of Work

The SOW for this project is based on the results of the site investigation (SI) (Roy F. Weston, Inc. [Weston], 1989), and conditions noted during a HLA/Wilder site visit conducted June 23, 1998. This SOW is not considered a site abatement or cleanup. The SOW for this project is outlined below.

- Prepare a site-specific safety and health plan.
- Install a culvert crossing at Red Devil Creek to provide access to the retort side of the mine site.
- Remove and dispose the following materials:
  - Five 100-pound bags of copper sulfate,
  - Fifteen 50-pound bags of sodium hydroxide,
  - One hundred seventy five 100-pound bags of potassium carbonate,
  - Oil drained from 2 switchgears at the steam plant,
  - Thirty-three 55-gallon drums containing various amounts of unknown material,
  - One 55-gallon drum containing aero xanthate (a salt used as a collector agent in flotation of sulfide minerals),
  - Eight 5-gallon buckets of grease-like substance,
  - One 55-gallon drum (maximum) of soil with visible free-mercury,
  - Approximately 50 lead-acid batteries,
  - Two 55-gallon drums (maximum) of friable asbestos-containing material loose in the work areas.
- Dispose chemicals and wastes in accordance with appropriate laws and regulations and provide certificates of disposal/destruction.
- Collect samples to evaluate contaminant concentrations in areas of known or suspected contamination.
- Collect surface-water and sediment samples to assess potential migration of contaminants associated with mining operations.
- Prepare a report summarizing removal activities, analytical results, chemical characterization and disposal, and conclusions. Include a photographic log documenting field conditions and activities.

The WP contains the full text of the delivery order.

1.2 Site Description

The Red Devil Mine site is in a remote part of western Alaska, on the south side of the Kuskokwim River (Figure 2). The mine occupies approximately 10 acres of BLM-owned land (Weston, 1989). An airstrip at the village of Red

Devil provides access to the area. From the airstrip, the mine site can be accessed by boat on the Kuskokwim River or along an unimproved road.

The mine site consists of the following areas:

- A housing area with eight individual units
- Equipment storage buildings
- Laboratory
- Engine shop
- Mine portal
- Chemical storage sheds
- Steam plant
- Ball mill and crusher
- Retort building
- Settling ponds
- Five aboveground storage tanks (ASTs)

Currently, the buildings are dilapidated and structurally unsound. Mining material and debris is spread across much of the site. Red Devil Creek runs through the mine site, separating the mill, crusher, ASTs, steam plant, and chemical storage sheds from the access road.

1.3 Background

The Red Devil Mine started producing mercury in 1933. The mine was owned and operated by New Idria-Alaska Quicksilver Mining Company from 1933 to 1946. DeCoursey Mountain Mining Company, also known as DeCoursey Brewis Company and Alaska Mines and Minerals, Inc., resumed mining operations in 1952, discontinuously producing mercury until 1971. At times, the mine was one of the largest producers of mercury in the United States and produced a total of 35,000 flasks of mercury according to the SI (Weston, 1989).

The SI included collecting surface-water, creek sediment, and mine tailings samples and analyzing them for mercury, arsenic, and antimony. Select samples were analyzed for additional metals. One residential well was sampled. Thirty-one transformers were inventoried and analyzed for polychlorinated biphenyls (PCBs). Chemicals stored at the site were characterized and their quantities estimated. Results from the SI showed mercury, antimony, and arsenic in the sediment and tailings. The surface-water results were similar to background samples (Weston, 1989).

Two of the transformers had PCB concentrations over 50 parts per million (ppm) and were removed from the site (Weston, 1989). The chemicals stored at the site were identified as copper sulfate, sodium hydroxide, and potassium carbonate.

The mine site has been inspected by the U.S. Environmental Protection Agency (EPA) (1971, 1979, and 1987), the Alaska Department of Environmental Conservation (ADEC) (1985, 1987, and 1997), and the BLM (1988) (Weston, 1989). The Weston SI report presents analytical results from site inspections/investigations conducted in 1971, 1979, and 1988. The site was given a "no further action" flag by the EPA Superfund Program in 1990.

2.0 FIELD INVESTIGATION

2.1 Deviations from the Work Plan

The field program followed the procedures in the WP with the exceptions summarized below. Deviations from the WP were discussed with and approved onsite by Mike Alcorn, the BLM project investigator, as authorized by Wayne Svejnoha, BLM Contractor Officer's Representative.

- The culvert crossing at Red Devil Creek was not installed because of the large amount of fill (tailings) that would need to be placed in the creek. Approval to use an old access road, which crosses the creek approximately 200 feet north of the collapsed bridge (Figure 2), was obtained from the BLM and the State of Alaska Department of Fish and Game.
- The contents of five ASTs were measured.
- Surface-water samples were not collected from the settling ponds because they were dry.
- Three additional soil samples were collected from the tailings in front (northwest) of the retort building and analyzed for target analyte list (TAL) metals.
- Four 55-gallon drums and three 1 cubic yard Supersacks™ of mercury-contaminated material and debris were removed and disposed.

- A sample was not collected from the excavated mercury-contaminated material for toxicity characteristic leaching procedure (TCLP) analysis. Two samples with the highest mercury concentration collected from in situ soil at the retort building were analyzed for mercury using TCLP.
- Background samples were analyzed for TAL metals only.
- Oil was removed and disposed from two oil bath air cleaners and a compressor at the steam plant.
- One 55-gallon drum of solid and one 55-gallon drum of liquid sodium dichromate dihydrate were removed and disposed from the chemical storage area.
- Twenty-one bags of antifreeze crystals and one bag of barite was removed and disposed from the metal storage building.
- Five Supersacks™ of soil and debris were removed and disposed from the chemical storage area.
- One transformer containing oil was found in the living quarters area. The oil was drained into a drum for disposal and the empty carcass left onsite.
- Oil drained from three vehicles at the mine site was removed and disposed.
- Approximately 100 batteries were removed from the site instead of the 50 in the SOW.

2.2 Field Procedures

Field procedures were conducted in accordance with procedures described in the WP and QAPP.

2.2.1 Field-Screening Procedures

Headspace screening was used to provide semiqualitative information about the presence of volatile organic compounds at the site. Soil samples for headspace screening were collected with a dedicated disposable sampling trowel. Soil was transferred into a quart-sized, plastic resealable bag until it was approximately half full. Soil temperatures were brought to between 55 and 70 degrees Fahrenheit in a heated vehicle to obtain consistent soil temperatures before taking readings. After a minimum of 15 minutes, or when the sample had reached the desired temperature range (established by touch), the probe of the photoionization detector was inserted into the bag for approximately 30 seconds, and the maximum organic vapor headspace reading was recorded.

A mercury vapor meter was used to monitor air quality in the exclusion zone and the support zone while mercury-contaminated material was being removed from the retort exhaust port.

2.2.2 Soil Investigation

Surface-soil samples were collected as discrete samples to obtain quantitative contaminant concentration data.

Surface soil is defined as the upper 0.5 feet of soil. Surface-soil samples were collected with dedicated disposable sampling trowels. Each sample was immediately containerized. Field personnel used a new pair of nitrile gloves for each sample and completely filled each container. Containers for volatile analyses were packed first. The sample containers were labeled and immediately placed in a cooler packed with a frozen ice substitute.

2.2.3 Surface-Water Investigation

Surface-water samples were collected by immersing the sample container at an angle to allow water to enter slowly, minimizing the aeration of the sample until the container was full. At collocated surface-water and sediment sample locations, the surface-water sample was collected first. Downstream samples were collected first to minimize disturbing sediment that might affect downstream surface-water samples.

Observations made during sample collection, such as sample depth, flow conditions, sheen, and a description of sample location, were recorded in the field logbook.

2.2.4 Sediment Investigation

Sediment samples were collected from Red Devil Creek using dedicated disposable sampling trowels. A Ponar dredge was used to collect sediment samples from the Kuskokwim River. The Ponar dredge is a clamshell-type scoop activated by a counter-lever system. The shell is opened, latched in place, and slowly lowered to the bottom. When tension is released on the lowering cable, the latch releases and the lifting action of the cable on the lever system closes the scoop.

Sample collection observations were recorded in the field logbook. Sample locations were marked with survey flagging along the nearest bank.

2.2.5 Decontamination Procedures

Dedicated disposable sampling trowels were used for soil sampling, and sediment sampling at Red Devil Creek. The Ponar dredge was rinsed with river water between each sample and samples were collected from the center of the dredge bucket. Surface-water samples were collected by immersing the sample containers.

Sample containers were provided by the analytical laboratory. Rinsate blanks were not collected as part of this investigation because dedicated disposable sampling equipment was used.

2.3 Waste Removal and Site Characterization Activities

Specific field procedures, sampling activities, and field observations for each of the areas of concern are presented below. Analytical results are discussed in section 5.0. Waste removal and site characterization activities were conducted July 16 through 28, 1999. Table 1 summarizes removal/disposal quantities associated with each area. Photographs taken during site characterization activities are included in Appendix A. A materials tracking/disposal log is in Appendix B.

2.3.1 Background Metals

One soil sample was collected southeast of the mine site to establish background metals concentrations in native soil (Figure 2). The sample was collected approximately 0.5 feet below ground surface (bgs). The soil was a coarse-grained sand mixed with organic material. The area did not appear impacted by mine activities.

Two surface-water and two sediment samples were collected to establish background metal concentrations in the Kuskokwim River and Red Devil Creek (Figure 2). One surface-water sample and one sediment sample were collected from Red Devil Creek upgradient of the mine site. One surface-water sample and one sediment sample were collected from the Kuskokwim River upgradient of the mouth of Red Devil Creek. Background sediment and surface-water samples were collected in a series, starting at the furthest downstream location and working upstream; all upgradient of observed mine activity disturbances.

2.3.2 Battery Storage

Five EP-2 boxes of batteries were removed from the mine site (approximately 100 batteries). The batteries were taken to Excide in Anchorage, Alaska, for recycling. Most of the batteries were in the shop and storage buildings on the west side of the mine site. The roof was removed from one of the shop buildings to provide safe access to the stored batteries. Batteries were also removed from three vehicles.

The SOW authorized the collection of a maximum of four soil samples from battery storage areas; however, most of the batteries were on concrete or wood flooring and only two soil samples were collected. One sample was collected from an area outside Building A (Figure 2) where whole and broken batteries were piled. One sample was collected from a gravel storage pad on the east side of the mine site where three batteries were removed (Figure 2). Both samples were collected approximately 0.5 feet bgs.

2.3.3 Transformer Areas

Two soil samples were collected from areas where transformers were stored. One sample was collected near three large transformers at the steam plant and one sample was collected from the gravel storage pad on the east side of the mine site (Figure 2). Both samples were collected approximately 0.5 feet bgs. Empty transformers were also stored on the shop pad and several were found near the housing area.

Field screening results indicated that two drums on the gravel storage pad contained PCB-contaminated oil (greater than 50 ppm PCBs). One transformer found near the housing area contained oil which field screening by Philip Services Corp. (Philip) indicated PCBs above 50 ppm. The transformer was drained into one of the PCB-contaminated drums on the storage pad. The drums containing PCB-contaminated oil were transported to Philip's Burlington Environmental, Inc. (BEI) disposal facility in Georgetown, Washington. Field screening results indicated one drum on the gravel storage pad contained suspected non-PCB-contaminated (less than 50 ppm PCBs) transformer oil, which was transported to Energy Recovery Services, Inc. (ERS) in Anchorage for recycling.

Oil was drained from two switchgears, two oil-bath air cleaners, and one compressor at the steam plant. Results of field screening by Philip indicated the switchgear oil had less than 50 ppm PCBs. Oil from the switchgears, air cleaners, and compressor was placed in one 55-gallon drum and transported to ERS for recycling.

2.3.4 Drum Areas

There were three main drum storage areas; the first was north of the retort building and contained 89 drums; the second was near the steam plant and contained 92 drums; and the third was near the shop pad and contained approximately 25 drums (Figure 2). The majority of the drums were empty. Drums were also found near the housing area and on the gravel storage pad east of Red Devil Creek. Eight 5-gallon buckets of grease were removed from the shop areas and packed into three 55-gallon drums. Three drums of Stoddard solvent were at the drum storage area near the steam plant. Philip characterized the contents of drums and compatible materials were bulked for transportation and disposal. Seventeen drums of used oil were transported to ERS for recycling. Three drums of grease, and three drums of Stoddard solvent were removed from the mine site and transported to BEI for disposal.

Four soil samples were collected from the drum storage areas. Samples were collected approximately 0.5 feet bgs.

2.3.5 Retort Building

Mercury was visible on the equipment and fixtures throughout the retort building. HLA/Wilder was tasked to remove and dispose one 55-gallon drum of mercury-contaminated material from the retort building; however, the area of concern was the concrete base and ash of the retort exhaust port. The exhaust port base consisted of a wooden box approximately 6-foot square with a concrete bottom. On top of the box was a layer of lumber and a 2.5- to 3-inch layer of concrete. A 2- to 4-inch layer of ash with visible mercury covered the concrete. The ash on top of the concrete was placed into two 55-gallon drums. After the ash was removed, the concrete was broken into small pieces and placed into two 55-gallon drums. Next, the lumber was removed and stacked next to the exhaust port. The base of the exhaust port had a layer of mercury-contaminated ash approximately 6 inches deep. The ash from the base was shoveled into plastic bags and placed into Supersacks™.

Two drums of mercury-contaminated ash, two drums of mercury-contaminated concrete, and three Supersacks™ of mercury-contaminated ash were removed and disposed from the retort building. Visible mercury was collected with a syringe from areas around the retort building. Approximately five pounds of free mercury was collected in a glass jar and placed in one of the drums of mercury-contaminated material. In addition, two Supersacks™ of mercury-contaminated personal protective equipment (PPE) and debris were disposed. The drums and Supersacks™ of mercury-contaminated material were transported to BEI.

Three soil samples were collected behind (east) the retort building (Figure 2). One sample was collected near the base of the retort exhaust port; one sample was collected near the middle of the building, between the ball mill area and the retort area; and one sample was collected from the north end of the building behind the ball mill area. Samples were collected between 0.25 and 0.5 feet bgs.

2.3.6 Chemical Storage Area

There were two chemical storage sheds near the retort building. The east shed, closest to the retort building, contained potassium carbonate. The west shed contained copper sulfate, sodium hydroxide, and sodium dichromate dihydrate. The sheds were dilapidated and the roof and west wall of the west shed, and the roof of the east shed were removed to allow safe access. The floors of both sheds had holes where the wood had rotted. The pH of the chemicals was tested and ranged from 9 to 13 for the potassium carbonate and sodium hydroxide. Two 55-gallon drums of copper sulfate; 2 Supersacks™ of sodium hydroxide; 1 drum of sodium dichromate dihydrate (solid); 1 drum of sodium dichromate dihydrate (liquid); and 7 Supersacks™ of potassium carbonate were removed and disposed from the chemical storage sheds. In addition, 5 Supersacks™ of chemicals/soil/debris mix were removed and disposed from the front (west) of the west shed. Chemical-contaminated PPE was disposed with the mercury-contaminated PPE. The drums and Supersacks™ of chemicals and contaminated soil were transported to BEI.

Two soil samples were collected from the chemical storage areas; one sample was collected from the area of excavated soil west of the west shed, the second sample was collected near the east shed (Figure 2). Both samples were collected between 0.25 feet and 0.5 feet bgs. Mercury was visible in the sample collected near the east shed.

2.3.7 Tailings Piles

Tailings were evident throughout the mine site and were presumably used as fill for leveling building and storage areas, and as a base for the former bridge crossing Red Devil Creek. The original SOW included collecting three soil samples from the tailings piles west of the retort building to the creek, and west of the creek where tailings were used for the former bridge support. An additional three samples were added to the SOW after visible mercury was found in the tailings near the retort building.

A road to access the drum storage area and ASTs was in front (northwest) of the retort building. Beyond the storage pad the topography slopes downward toward the creek. Four soil samples were collected from the west edge of the pad in front of the retort building. One sample was collected from tailings down slope of the retort building and south of the settling pond area. One sample was collected from tailings on the west bank of Red Devil Creek in the area of the collapsed bridge. Sample locations are shown on Figure 2. Samples were collected approximately 0.5 feet bgs.

2.3.8 Settling Ponds

Three settling ponds associated with mining operations were northwest of the retort building, near Red Devil Creek. The pond area was dry at the time of the removal activities and there was no visible differentiation between ponds. The south end of the pond area appeared to have been filled and graded. A berm encompassed most of the pond area. Three sediment samples were collected from the settling pond area (Figure 2). The samples were collected between 0.25 and 0.5 feet bgs. The soil at the north end of the pond area consisted of approximately 3 inches of silt/organic material above coarse-grained sand. The soil at the south end had a thin layer of organic material over sandy gravel.

2.3.9 Red Devil Creek

Three sediment samples and two surface-water samples were collected from Red Devil Creek. One sediment sample and one surface-water sample were collected near the mouth of the creek at the Kuskokwim River. One sediment sample was collected from below the north end of the settling pond area. One sediment and one surface-water sample were collected below the southwest end of the settling pond area and downgradient of the for-

mer bridge where tailings were used for support on both sides of the creek.

2.3.10 Kuskokwim River

Two sediment samples and two surface-water samples were collected from the Kuskokwim River. The sample sets were collected approximately 550 feet and 1,100 feet downstream from the mouth of Red Devil Creek and approximately 30 feet from the south river bank.

3.0 ANALYTICAL PROGRAM

Sample numbers, sample depths, and requested chemical analyses are summarized in the sample record log in Appendix C.

Commercial Testing & Engineering Company, Environmental Laboratory Services, Anchorage, performed laboratory analysis.

Sample preparation and chemical analyses were performed using methods described in *Test Methods for Evaluation of Solid Waste* (EPA, 1986, updated through January 1998).

The following analytical methods were used:

Target compound list:

- Volatile organic compounds (VOCs) using EPA Method 8260B
- Semivolatile organic compounds (SVOCs) using EPA Method 8270
- PCBs/pesticides using EPA Method 8081/8082

Target analyte list:

- Metals using EPA Methods 6010/7000.

Additional analyses:

- Lead by EPA Method 7421
- Mercury by EPA Method 7470
- TCLP mercury by EPA Method 1311/7470

4.0 DATA QUALITY ASSESSMENT

HLA/Wilder assessed data quality for all project and quality control (QC) soil samples collected and analyzed during the investigation. The results of the data quality assessment and checklists are in Appendix D. Based on HLA/Wilder's review the laboratory data are considered acceptable

5.0 ANALYTICAL RESULTS

Analytical results are presented on Tables 2 through 4. Laboratory data packages are in Appendix C.

5.1 Cleanup Levels

Soil results were compared to ADEC (1999) soil cleanup levels established in Title 18, Alaska Administrative Code, Chapter 75 (18 AAC 75), Method Two, Table B1, under 40 inch zone, most conservative pathway; EPA Region 9 (1999) Preliminary Remedial Goals for Industrial Soil; and EPA Region 3 (1999) Risk-based Concentration Tables. Background concentrations of antimony, arsenic, and mercury measured in sample 99SLRDMG01 exceeded the cleanup levels. The background concentrations for these three metals were used for comparison in Table 2 and the discussion of results in the following sections.

Surface-water results were compared to background concentrations measured in samples 99SWRDMK03 and 99SWRDME04. Analytical results for surface water are presented on Table 3.

Sediment results were compared to background concentrations measured in samples 9SDRDMK03 and 99SDRDME05. Analytical results for sediment are provided on Table 4. Typically, cleanup levels for sediment are based on a site-specific risk analysis, which was beyond the project SOW.

5.2 Background Metals

One background soil sample (99SLRDMG01) was collected west of the mine site, from an area that appeared unaffected by mine activities, and analyzed for TAL metals. Results are presented on Table 2. The sample location is on Figure 2.

The concentration of antimony (27.6 milligrams per kilogram [mg/kg]), arsenic (160 mg/kg), and mercury (3.49 mg/kg) were above the cleanup levels (3.6, 2, and 1.4 mg/kg, respectively). These background concentrations were used instead of

cleanup levels to show exceedences in other soil results on Table 2 and in the following discussions.

Background sediment and surface-water samples were collected from Red Devil Creek and the Kuskokwim River and are discussed in Sections 5.10 and 5.11, respectively.

5.3 Battery Storage

Two project soil samples (99SLRDMB01 and 99SLRDMB03) and one QC sample (99SLRDMB02) were collected from two battery storage areas and analyzed for lead. Results are on Table 2. Sample locations are on Figure 2.

The lead concentration exceeded the cleanup level for industrial soil (1,000 mg/kg) in all three samples. Samples 99SLRDMB01 (13,500 mg/kg) and 99SLRDMB02 (10,700 mg/kg) were collected outside Building A where whole and broken batteries were piled. Sample 99SLRDMB03 (1,080 mg/kg) was collected from the storage pad east of Red Devil Creek. The background lead concentration was 6.79 mg/kg.

5.4 Transformer Areas

Two project soil samples (99SLRDMA01 and 99SLRDMA02) were collected from transformer areas at the steam plant and gravel storage pad, respectively, and analyzed for VOCs, SVOCs, and PCB/pesticides. Results are on Table 2. Sample locations are on Figure 2.

SVOCs and PCB/pesticides were not detected at or above the method reporting limits in either sample. VOCs were not detected at or above the method reporting limits in sample 99SLRDMA01; however, the method detection limit for benzene (0.041 mg/kg) exceeded the cleanup level (0.02 mg/kg). The concentration of benzene in sample 99SLRDMA02 (0.0988 mg/kg) exceeded the cleanup level. Toluene, naphthalene, and p&m xylene were detected in sample 99SLRDMA02, however, the concentrations were below their associated cleanup levels.

5.5 Drum Areas

Four project soil samples (99SLRDMD01 and 99SLRDMD03 through 99SLRDMD05) were collected from four drum storage areas at the site and analyzed for TAL metals, VOCs, SVOCs, and PCB/pesticides. One QC sample (99SLRDMD02) was collected and analyzed for VOCs, SVOCs, and PCB/Pesticides. Results are on Table 2 and sample locations are on Figure 2.

SVOCs and PCB/pesticides were not detected at or above the method reporting limits. Toluene was detected in sample 99SLRDMD05 (0.0354 mg/kg), however, the concentration was less than the cleanup level (5.4 mg/kg). Naphthalene was detected in samples 99SLRDMD01 (0.0696 mg/kg), 99SLRDMD02 (0.157 mg/kg), and 99SLRDMD05 (0.0576 mg/kg), however, the concentrations were less then the cleanup level (43 mg/kg). The method detection limit for benzene (0.031 to 0.049 mg/kg) exceeded the cleanup level.

The concentration of antimony exceeded the 27.6 mg/kg background concentration in samples 99SLRDMD03 (83.8 mg/kg) and 99SLRDMD04 (1,000 mg/kg). The concentration of arsenic exceeded the 160 mg/kg background concentration in samples 99SLRDMD04 (8,740 mg/kg), and 99SLRDMD05 (1,160 mg/kg). The method detection limit for arsenic in sample 99SLRDMD03 (229 mg/kg) exceeded the background concentration. The concentration of mercury exceeded the 3.49 mg/kg background concentration in samples 99SLRDMD01 (44 mg/kg), 99SLRDMD03 (344 mg/kg), 99SLRDMD04 (311 mg/kg), and 99SLRDMD05 (88 mg/kg).

5.6 Retort Building

Four project soil samples (99SLRDMR01 through 99SLRDMR04) were collected in front (northwest) of the retort building and analyzed for TAL metals. Three project samples (99SLRDMR05 through 99SLRDMR07) and one QC sample (99SLRDMR08) were collected behind (southeast) the retort building and analyzed for mercury. Two samples (99SLRDMR04 and 99SLRDMR05) were analyzed for mercury using TCLP. Results are on

Table 2 and sample locations are shown on Figures 2 and 3.

The concentration of antimony in samples 99SLRDMR01 through 99SLRDMR04 ranged from 529 to 1,520 mg/kg, which exceeded the background concentration. The concentration of arsenic in samples 99SLRDMR01 through 99SLRDMR04 ranged from 1,380 to 3,130 mg/kg, which exceeded the background concentration. The concentration of mercury in samples 99SLRDMR01 through 99SLRDMR08 ranged from 445 to 23,800 mg/kg, which exceeded the background concentration.

TCLP mercury results did not exceed allowable limits.

5.7 Chemical Storage Area

Two project samples (99SLRDMC01 and 99SLRDMC02) were collected from the chemical storage area and analyzed for TAL metals, VOCs, SVOCs, and PCB/pesticides. Results are on Table 2 and Figure 3.

SVOCs and PCB/pesticides were not detected at or above their method detection limits. Naphthalene was detected in sample 99SLRDMC02 (0.0487 mg/kg), however, the concentration was below the cleanup level (43 mg/kg). The method detection limit for benzene (0.034 and 0.047 mg/kg) exceeded the cleanup level. The concentration of antimony in samples 99SLRDMC01 (503 mg/kg), and 99SLRDMC02 (566 mg/kg) exceeded the background concentration. The concentration of arsenic in sample 99SLRDMC02 (720 mg/kg) exceeded the background concentration. The concentration of chromium in sample 99SLRDMC01 (255 mg/kg) exceeded the cleanup level (26 mg/kg) and the background concentration (12 mg/kg). The concentration of mercury in samples 99SLRDMC01 (185 mg/kg) and 99SLRDMC02 (35,300 mg/kg) exceeded the background concentration.

5.8 Tailings Piles

Two project soil samples (99SLRDMT01 and 99SLRDMT02) were collected from tailings piles and analyzed for TAL metals. Results are on Table 2 and sample locations are on Figure 2.

The concentration of antimony in samples 99SLRDMT01 (1,780 mg/kg) and 99SLRDMT02 (52.8 mg/kg) exceeded the background concentration. The concentration of arsenic in sample 99SLRDMT01 (2,280 mg/kg) exceeded the background concentration. The method detection limit for arsenic in sample 99SLRDMT02 (377 mg/kg) exceeded the background concentration. The concentration of mercury in samples 99SLRDMT01 (269 mg/kg) and 99SLRDMT02 (100 mg/kg) exceeded the background concentration.

5.9 Settling Ponds

Three project soil samples (99SDRDMS01, 99SDRDMS03, and 99SDRDMS04) and one QC sample (99SDRDMS02) were collected from the former settling pond area and analyzed for TAL metals. Results are on Table 2 and sample locations are shown on Figure 2.

The concentration of antimony ranged from 162 to 892 mg/kg, which exceeded the background concentration. The concentration of arsenic ranged from 2,450 to 3,680 mg/kg, which exceeded the background concentration. Sample 99SDRDMS03 had a chromium concentration of 27.1 mg/kg, which exceeded the cleanup level and background concentration. The concentration of mercury ranged from 191 to 982 mg/kg, which exceeded the background concentration.

5.10 Red Devil Creek

Surface Water

Two project surface-water samples (99SWRDME01 and 99SWRDME02) and one QC sample (99SWRDME03) were collected from Red Devil Creek. Samples were analyzed for TAL

metals, VOCs, SVOCs, and PCB/pesticides. Analytical results are presented on Table 3 and Figure 2 shows sample locations.

A background sample (99SWRDME04) from Red Devil Creek was collected upstream at a point that appeared unaffected by mine activities and analyzed for TAL metals. These background concentrations are used instead of cleanup levels to show exceedences in surface-water samples collected from Red Devil Creek on Table 3 and in the following discussion.

VOCs, SVOCs, and PCB/pesticides were not detected at or above the method detection limits. The concentration of antimony ranged from 0.0754 to 0.366 milligrams per liter (mg/L), which exceeded the background level (not detected at or above 0.00556 mg/L). The concentration of arsenic ranged from 0.0249 to 0.116 mg/L, which exceeded the background level (not detected at or above 0.00556 mg/L). The concentration of aluminum in sample 99SWRDME02 (0.185 mg/L) exceeded the background level (not detected at or above 0.111 mg/L). The concentration of barium in sample 99SWRDME01 (0.0298 mg/L) exceeded the background concentration (0.0232 mg/L). The concentration of mercury in samples 99SWRDME01 (0.00143 mg/L) and 99SWRDME03 (0.000262 mg/L) exceeded the background level (not detected at or above 0.0002 mg/L). The concentration of sodium ranged from 1.64 to 2.71 mg/L, which exceeded the background concentration of 1.53 mg/L. The concentrations of calcium and magnesium in sample 99SWRDME01 (16.2 and 10.4 mg/L) slightly exceeded the background concentrations (14.9 and 7.77 mg/L, respectively).

Sediment

Three project sediment samples (99SDRDME01, 99SDRDME02, and 99SDRDME03) and one QC sample (99SDRDME04) were collected from Red Devil Creek and analyzed for TAL Metals. Results are presented on Table 4 and sample locations are on Figure 2. Sediment samples 99SDRDME01 and 99SDRDME03 were collected with surface-water samples 99SWRDME01 and 99SWRDME02, respectively.

A background sample, 99SDRDME05, was collected upstream of the mine facilities at the location of 99SWRDME04 and analyzed for TAL metals. These background concentrations were used instead of cleanup levels to show exceedences in sediment samples collected from Red Devil Creek on Table 4 and in the following discussion.

The concentrations of antimony (238 to 963 mg/kg), arsenic (975 to 2,030 mg/kg), barium (275 to 487 mg/kg), beryllium (0.712 to 1.01 mg/kg), cadmium (0.37 to 0.474 mg/kg), calcium (3,150 to 6,790 mg/kg), chromium (18.8 to 24.9 mg/kg), copper (40.4 to 49.6 mg/kg), magnesium (3,550 to 7,820 mg/kg), mercury (48.4 to 399 mg/kg), nickel (41.3 to 53.3 mg/kg), potassium (1,670 to 2,100 mg/kg), sodium (127 to 214 mg/kg), and thallium (0.296 to 0.636 mg/kg) exceeded background concentrations. The concentration of aluminum in samples 99SDRDME02 (8,420 mg/kg) and 99SDRDME04 (8,490 mg/kg) exceeded the background concentration (6,800 mg/kg). The concentration of cobalt in sample 99SDRDME01 (16.5 mg/kg) exceeded the background concentration (14.8 mg/kg). The concentration of lead in samples 99SDRDME02 (9.07 mg/kg), 99SDRDME03 (12.7 mg/kg), and 99SDRDME04 (11.3 mg/kg) exceeded the background concentration (7.76 mg/kg). The concentration of selenium in sample 99SDRDME01 (0.243 mg/kg) exceeded the background concentration (not detected at or above 0.230 mg/kg). The concentration of zinc in sample 99SDRDME02 (122 mg/kg) exceeded the background concentration (87.2 mg/kg).

5.11 Kuskokwim River

Surface Water

Three project surface-water samples (99SWRDMKO1 through 99SWRDMK03) were collected from the Kuskokwim River and analyzed for TAL metals. Sample 99SWRDMK03 was collected upstream from the mouth of Red Devil Creek and was considered background. These background concentrations are used instead of cleanup levels to show exceedences in surface-water samples collected from the Kuskokwim River on Table 3 and in the following discussion.

The concentration of aluminum in sample 99SWRDMK01 (1.76 mg/L) slightly exceeded the background concentration (1.71 mg/L). The concentration of barium in sample 99SWRDMK01 (0.0549 mg/L) slightly exceeded the background concentration (0.0547 mg/L). The concentration of iron in sample 99SWRDMK01 (3.73 mg/L) slightly exceeded the background concentration (3.49 mg/L). The concentration of manganese in sample 99SWRDMK01 (0.0877 mg/L) slightly exceeded the background concentration (0.0832 mg/L). The concentrations of calcium and magnesium in sample 99SWRDMK01 (17.3 and 4.73 mg/L) slightly exceed the background concentrations (17.2 and 4.72 mg/L, respectively).

Sediment

Three project sediment samples (99SDRDMK01 through 99SDRDMK03) were collected from the Kuskokwim River and analyzed for TAL metals. Sample 99SDRDMK03 was collected upstream from the mouth of Red Devil Creek and was considered background. These background concentrations were used instead of cleanup levels to show exceedences in sediment samples collected from the Kuskokwim River on Table 4 and in the following discussion. Sediment samples collected from the Kuskokwim River were collected at the same locations as the surface-water samples.

The concentration of antimony in sample 99SDRDMK01 (7.78 mg/kg) exceeded the background concentration (not detected at or above 0.303mg/kg). The concentration of arsenic in samples 99SDRDMK01 (104 mg/kg) and 99SDRDMK02 (12.4 mg/kg) exceeded the background concentration (7.1 mg/kg). The concentration of mercury in samples 99SDRDMK01 (55.5 mg/kg) and 99SDRDMK02 (0.185 mg/kg) exceeded the background level (0.138 mg/kg). The concentration of manganese in samples 99SDRDMK01 (1,190 mg/kg) and 99SDRDMK02 (406 mg/kg) exceed the background level (351 mg/kg). The concentration of barium in sample 99SDRDMK01 (335 mg/kg) exceeded the background level (164 mg/kg). The concentration of calcium in sample 99SDRDMK02 (3,330 mg/kg) exceeded the background level (3,210 mg/kg). The concentration of chromium in sample 99SDRDMK02 (24.2 mg/kg) exceeded the background level (23.5 mg/kg). The concentration of iron in sample 99SDRDMK01 (31,800 mg/kg) exceeded the background level (23,400 mg/kg).

6.0 CONCLUSIONS

Conclusions for each investigation area are presented below.

6.1 Background Metals

One background soil sample was collected and analyzed to establish metal concentrations in native soil. The antimony, arsenic, and mercury concentrations were greater than cleanup levels established in 18 AAC 75, Method Two, Table B1, under 40 inch zone, most conservative pathway.

The background soil sample mercury concentration (3.49 mg/kg) was similar to mercury concentrations for background concentrations for samples discussed in the SI report (6.4, 7.8, and 8.0 mg/kg)(Weston, 1989) and reported concentrations for samples collected by the U.S. Geological Survey (USGS)(0.16 to 2.22 mg/kg with one sample reported at 36.1 mg/kg)(Bailey and Gray, 1997; USGS, 1996, 1998, and 1999).

Background sediment samples were collected from the Kuskokwim River and Red Devil Creek. Background surface-water samples were also collected from the Kuskokwim River and Red Devil Creek.

The background surface-water sample mercury concentrations from Red Devil Creek and Kuskokwim River (not detected at 0.00020 mg/L) were generally similar to samples discussed in the SI report (0.0002 to 0.0017 mg/L) (Weston, 1989), and samples collected by the USGS (not detected at 0.00010 mg/L, 0.000013 and 0.0000106 mg/L) (Bailey and Gray, 1997; USGS, 1999).

The background sediment sample mercury concentrations from Red Devil Creek (0.0309 mg/kg) and Kuskokwim River (0.138 mg/kg) were generally similar to samples collected by the USGS from Red Devil Creek (0.279 mg/kg) and Kuskokwim River (0.168 mg/kg)(USGS, 1999).

The background surface-water and sediment results were used for comparison with results for other investigation samples. The background concentrations for antimony, arsenic, and mercury were used for comparison with results for other investigation samples.

6.2 Battery Storage

The lead concentrations in samples collected from battery storage areas were above cleanup levels. The lateral and vertical extent of contamination was not identified during the limited removal action.

6.3 Transformer Areas

The soil sample collected from the gravel storage pad adjacent to the transformers had a cleanup level exceedance of benzene. PCBs were not detected.

6.4 Drum Area

The samples collected from the drum storage areas had mercury concentrations above background levels. The highest mercury concentration was detected in the sample collected near the retort building. The concentration of antimony was above background in the samples collected near the retort building and next to the shop pad. The arsenic concentration was above background in the samples collected next to the shop pad and on the gravel storage pad. The highest concentrations of antimony and arsenic were detected in the sample collected near the shop pad. The lateral and vertical extent of contamination was not identified during the limited removal action.

6.5 Retort Building

The four samples collected in front (northwest) of the retort building had arsenic, antimony, and mercury concentrations above background levels. The highest antimony and arsenic concentrations were detected in sample 99SLRDMR01. The highest concentration of mercury was detected in sample 99SLRDMR04 (Figure 3). Mercury was visible in the soil near 99SLRDMR01.

The three samples collected behind the retort building were analyzed for mercury. The mercury concentration in the samples exceeded background levels with the highest mercury concentration detected in the sample collected near the retort exhaust port. Material at this sample location appeared layered with gray ash and black soot. The lateral and vertical extent of contamination was not identified during the limited removal action.

There was visible mercury in the troughs and on equipment in the retort building. The building was dilapidated with portions of the metal siding missing or loose. Suspected asbestos-containing insulation was exposed on the roof supports.

6.6 Chemical Storage Area

Antimony, chromium, and mercury concentrations were above cleanup and background levels in the sample collected from the west chemical shed. The chromium exceedance was possibly related to open bags of sodium dichromate dihydrate that were stored in the shed. The lateral and vertical extent of contamination was not identified during the limited removal action.

Antimony, arsenic, and mercury concentrations were above background levels in the sample collected from the east chemical shed. Mercury was visible in the soil at the sample location.

Although an effort was made to remove chemicals from the lumber and bricks beside the shed, copper sulfate (blue-green material) was visible on some of the building debris at the west chemical storage shed. Both chemical sheds had holes in the flooring where chemicals may have fallen through to the ground surface below.

6.7 Tailings Piles

Antimony, arsenic, and mercury concentrations were above background levels in the two samples collected from tailings piles. Tailings from mine activities were used throughout the mine site as fill material. The extent of the tailings was not identified during the limited removal action.

6.8 Settling Ponds

Antimony, arsenic, and mercury concentrations were above background levels in the samples collected from the settling ponds. The concentration of chromium was slightly above the cleanup level in sample 99SDRDMS03 collected near the center of the settling ponds. The mercury and antimony concentrations were highest in the sample collected on the west side of the settling ponds; an area where fill and grading may have occurred since the settling ponds were used.

Although the settling ponds were dry at the time of the limited removal action, there is a possibility of seasonal ponding. Standing water was noted in the settling ponds during the HLA/Wilder June 1998 site visit.

6.9 Red Devil Creek

Antimony, arsenic, and mercury concentrations were above background levels in the surface-water samples collected near the mouth of Red Devil Creek. Sixteen of the 23 metals analyzed were above background concentrations in the collocated sediment sample.

Aluminum and antimony concentrations were above background levels in the surface-water sample collected from Red Devil Creek below the settling ponds. The concentration of mercury in the QC duplicate sample was above the cleanup and background level. The collocated project and QC sediment samples had concentrations above background in 15 out of 23 and 16 out of 23, respectively, of the metals analyzed.

The sediment sample collected from Red Devil Creek downstream of the settling ponds had concentrations above background levels in 17 out of the 23 metals analyzed.

6.10 Kuskokwim River

Aluminum, iron, and manganese concentrations were above background levels in the surface-water sample collected approximately 1,100 feet downstream from the mouth of Red Devil Creek. The collocated sediment sample had concentrations above background in 6 out of the 23 metals analyzed.

Aluminum, iron, and manganese concentrations in the surface-water sample collected approximately 550 feet down river from the mouth of Red Devil Creek were similar to background levels. The collocated sediment sample had concentrations slightly above background in 3 out of the 23 metals analyzed.

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TABLES

Table 1. Waste Removal and Characterization Summary

Area of Concern	Quantity/Description of Material Removed
Battery Storage	5 EP-2 boxes/batteries
Transformer Areas	
Power Plant	1 55-gallon drum/used oil
Gravel Storage Pad	2 55-gallon drums/suspected PCB-contaminated transformer oil
	1 55-gallon drum/suspected non-PCB-contaminated transformer oil
Drum Areas	
Power Plant	13 55-gallon drums/used oil
	3 55-gallon drums/Stoddard solvent
Shop Pad	4 55-gallon drums/used oil
	3 55-gallon drums/grease
Near Retort Building	None
Retort Building	2 55-gallon drums/mercury-contaminated ash
	2 55-gallon drums/mercury-contaminated concrete
	3 Supersacks™/mercury-contaminated ash
	2 Supersacks™/mercury-contaminated PPE and debris
Chemical Storage	2 55-gallon drums/sodium dichromate dihydrate
	7 Supersacks™/potassium carbonate
	5 Supersacks™/chemical-contaminated soil and debris
	2 Supersacks™/sodium hydroxide
	2 55-gallon drums/copper sulfate

PCB Polychlorinated biphenyls
PPE Personal protective equipment

Table 2. Soil Analytical Results

Analyte	Method	Regulatory Level[a]	Unit	99SLRDMG01 Background Soil	99SLRDMB01 Battery Pile - Near Building A	99SLRDMB02 Battery Pile - Near Building A	99SLRDMB03 Battery Pile - Gravel Storage Pad	99SLRDMR01 Transformer Drums West of Retort Building	99SLRDMR02 West of Retort Building	99SLRDMR03 West of Retort Building	99SLRDMR04 West of Retort Building	99SLRDMR05 East of Retort Building - Near Exhaust port Base	99SLRDMR06 East of Retort Building - Middle	99SLRDMR07 East of Retort Building - North End	99SLRDMR08 East of Retort Building - North End	99SLRDMT01 Tailings Pile - South of Settling Ponds
			Sample Number	99SLRDMG01	99SLRDMB01	99SLRDMB02	99SLRDMB03	99SLRDMR01	99SLRDMR02	99SLRDMR03	99SLRDMR04	99SLRDMR05	99SLRDMR06	99SLRDMR07	99SLRDMR08	99SLRDMT01
			Sample Location	Background Soil	Battery Pile - Near Building A	Battery Pile - Near Building A	Battery Pile - Gravel Storage Pad	Transformer Drums West of Retort Building	West of Retort Building	West of Retort Building	West of Retort Building	East of Retort Building - Near Exhaust port Base	East of Retort Building - Middle	East of Retort Building - North End	East of Retort Building - North End	Tailings Pile - South of Settling Ponds
			Date Collected	7/23/99	7/17/99	7/17/99	7/23/99	7/19/99	7/19/99	7/19/99	7/19/99	7/22/99	7/22/99	7/22/99	7/22/99	7/19/99
			Sample Type	PR	PR	QC	PR	PR	PR	PR	PR	PR	PR	PR	QC	PR
Target Analyte List																
Aluminum	6010B	100,000[b]	mg/kg	**10,300**	NA	NA	NA	4,400	3,640	2,920	3,340	NA	NA	NA	NA	8,850
Antimony	7041	3.6	mg/kg	**27.6**	NA	NA	NA	1,520	529	629	744	NA	NA	NA	NA	1,780
Arsenic	7060	2	mg/kg	**160**	NA	NA	NA	3,130	1,380	2,270	2,490	NA	NA	NA	NA	2,280
Barium	6010B	1,100	mg/kg	**44**	NA	NA	NA	287	211	193	182	NA	NA	NA	NA	614
Beryllium	7091	1.9	mg/kg	**0.22**	NA	NA	NA	0.824	0.871	1.49	0.0745	NA	NA	NA	NA	1.14
Cadmium	7131	5	mg/kg	**0.134**	NA	NA	NA	0.54	0.584	0.55	0.368	NA	NA	NA	NA	0.463
Calcium	6010B	- -	mg/kg	**253**	NA	NA	NA	5,630	2,620	3,190	3,290	NA	NA	NA	NA	6,790
Chromium	7191	26	mg/kg	**12**	NA	NA	NA	10.9	12.9	11.1	23.5	NA	NA	NA	NA	23.1
Cobalt	6010B	29,000[b]	mg/kg	**2.61**	NA	NA	NA	17.0	18.7	14.9	21.3	NA	NA	NA	NA	17.8
Copper	6010B	70,000[b]	mg/kg	**8.31**	NA	NA	NA	57.2	70.2	69.0	77.2	NA	NA	NA	NA	121
Iron	6010B	100,000[b]	mg/kg	**12,000**	NA	NA	NA	24,400	28,700	31,200	38,800	NA	NA	NA	NA	34,600
Lead	7421	1,000	mg/kg	**6.79**	13,500	10,700	1,080	12.6	48.5	55.3	900	NA	NA	NA	NA	13.8
Magnesium	6010B	- -	mg/kg	**712**	NA	NA	NA	1,360	1,520	4,890	4,320	NA	NA	NA	NA	7,140
Manganese	6010B	45,000[b]	mg/kg	**45.4**	NA	NA	NA	746	733	748	719	NA	NA	NA	NA	551
Mercury	7471	1.4	mg/kg	**3.49**	NA	NA	NA	1,090	445	975	11,200	23,800	4,010	3,330	7,220	269
Nickel	6010B	87	mg/kg	**5.83**	NA	NA	NA	44.5	59.6	36.8	64.1	NA	NA	NA	NA	55.1
Potassium	6010B	- -	mg/kg	**ND (430)**	NA	NA	NA	1,080	743	957	818	NA	NA	NA	NA	2370 J
Selenium	7740	3.5	mg/kg	**ND (0.414)**	NA	NA	NA	ND (0.242)	ND (0.197)	0.353	ND (2.09)	NA	NA	NA	NA	0.241
Silver	7761	21	mg/kg	**0.142**	NA	NA	NA	0.131	0.121	0.209	ND (0.0419)	NA	NA	NA	NA	0.164
Sodium	6010B	- -	mg/kg	**ND (95.5)**	NA	NA	NA	67.7	ND (39.3)	56.3	55.5	NA	NA	NA	NA	ND (40.3)
Thallium	7841	140[c]	mg/kg	**ND (0.414)**	NA	NA	NA	ND (0.242)	ND (0.197)	ND (0.210)	0.280	NA	NA	NA	NA	0.358
Vanadium	6010B	710	mg/kg	**17.6**	NA	NA	NA	23.0	24.9	19.0	23.3	NA	NA	NA	NA	22.8
Zinc	6010B	9,100	mg/kg	**13.8**	NA	NA	NA	115	115	116	116	NA	NA	NA	NA	113
Mercury	TCLP 1311/7470	0.2[d]	mg/L	**NA**	NA	NA	NA	NA	NA	NA	0.0026	0.00835	NA	NA	NA	NA
TCL VOCs																
Benzene	8260	0.02	mg/kg	**NA**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	8260	5.4	mg/kg	**NA**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	8260	43	mg/kg	**NA**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p&m-Xylene	8260	78	mg/kg	**NA**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2. Soil Analytical Results (continued)

Analyte	Method	Regulatory Level[a]	Unit	99SLRDMT02	99SLRDMD01	99SLRDMD02	99SLRDMD03	99SLRDMD04	99SLRDMD05	99SLRDMA01	99SLRDMA02	99SLRDMC01	99SLRDMC02	99SDRDMS01	99SDRDMS02	99SDRDMS03	99SDRDMS04
Sample Location				Tailings Pile – West of Red Devil Creek	Drum Area Near Steam Plant	Drum Area Near Steam Plant	Drum Area Near Retort Building	Drum Area Near Shop Pad	Near PCB Drum on Gravel Storage Pad	Transformers Near Steam Plant	Transformers on Gravel Storage Pad	Chemical Storage Shed - West	Chemical Storage Shed - East	Settling Ponds	Settling Ponds	Settling Ponds	Settling Ponds
Date Collected				7/19/99	7/20/99	7/20/99	7/21/99	7/21/99	7/23/99	7/20/99	7/20/99	7/22/99	7/22/99	7/19/99	7/19/99	7/19/99	7/19/99
Sample Type				PR	PR	QC	PR	PR	PR	PR	PR	PR	PR	PR	QC	PR	PR
Target Analyte List																	
Aluminum	6010B	100,000[b]	mg/kg	NA	NA	NA	NA	NA	1,890	NA	NA	NA	NA	1,450	1,460	1,450	8,250
Antimony	7041	3.6	mg/kg	52.8	13.4	NA	83.8	1,000	8.53	NA	NA	503	566	480 J	162 J	512	892
Arsenic	7060	2	mg/kg	ND (377)	66.0	NA	ND (229)	8,740	1,160	NA	NA	ND (498)	720	3,390	3,680	3,040	2,450
Barium	6010B	1,100	mg/kg	186	225	NA	145	416	122	NA	NA	170	183	65	81.1	90.7	556
Beryllium	7091	1.9	mg/kg	0.953	0.769	NA	0.652	0.724	0.692	NA	NA	0.783	0.779	0.808	0.679	0.985	1.12
Cadmium	7131	5	mg/kg	0.545	0.533	NA	0.459	0.34	0.296	NA	NA	0.733	1.05	0.3	0.306	0.281	0.353
Calcium	6010B	--	mg/kg	2,220	1,610	NA	1,430	3,750	6,460	NA	NA	3,830	3,700	1,060	1,220	5,850	4,410
Chromium	7191	26	mg/kg	12.2	15	NA	17.9	24.4	22.1	NA	NA	255	22.1	12.9	13.8	27.1	24.3
Cobalt	6010B	29,000[b]	mg/kg	20.6	19.1	NA	15.6	14.5	22.7	NA	NA	17.6	19.2	14.8	12.7	16.6	17.8
Copper	6010B	70,000[b]	mg/kg	54.9	70.1	NA	106	59.1	77.2	NA	NA	246	91.6	55	54.5	62	60.9
Iron	6010B	100,000[b]	mg/kg	NA	NA	NA	NA	NA	37,500	NA	NA	NA	NA	37,200	35,400	46,800	31,700
Lead	7421	1,000	mg/kg	16.3	31.3	NA	39.2	9.76	13.7	NA	NA	20.3	37.7	127 J	255 J	88.9	91.3
Magnesium	6010B	--	mg/kg	804	742	NA	1,400	3,340	9,540	NA	NA	1,050	1,150	865	894	7,580	5,220
Manganese	6010B	45,000[b]	mg/kg	1,680	1,450	NA	660	580	641	NA	NA	676	868	580	446	937	676
Mercury	7471	1.4	mg/kg	100	44	NA	344	311	88	NA	NA	185	35,300	479 J	191 J	476	982
Nickel	6010B	87	mg/kg	72.6	66.1	NA	42.2	43.3	62.9	NA	NA	40.2	57.1	43	35.1	44.9	48.1
Potassium	6010B	--	mg/kg	671 J	848 J	NA	665 J	1,690 J	863	NA	NA	677 J	892 J	746	730	662	2,680 J
Selenium	7740	3.5	mg/kg	0.256	ND (0.210)	NA	ND (0.229)	ND (0.225)	0.406	NA	NA	ND (0.249)	ND (0.235)	ND (0.228) J	0.41 J	0.307	ND (0.228)
Silver	7761	21	mg/kg	0.136	0.255	NA	0.179	0.0661	0.163	NA	NA	0.309	0.0657	0.252	0.295	0.197	0.128
Sodium	6010B	--	mg/kg	NA	NA	NA	NA	NA	ND (38.8)	NA	NA	4,550	3,640	ND (49.8)	ND (46.5)	ND (42.2)	219
Thallium	7841	140[c]	mg/kg	ND (0.188)	ND (0.210)	NA	ND (0.229)	0.265	ND (0.195)	NA	NA	ND (0.249)	ND (0.235)	ND (0.228)	0.294	0.578	0.401
Vanadium	6010B	710	mg/kg	22.1	29.2	NA	29.1	23.2	25.5	NA	NA	24.7	22.8	15.7	14.6	21.9	24
Zinc	6010B	9,100	mg/kg	115	142	NA	123	93.6	109	NA	NA	121	196	94.1	88.8	92.6	101
Mercury	TCLP 1311/7470	0.2[d]	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCL VOCs																	
Benzene	8260	0.02	mg/kg	NA	ND (0.037)	ND (0.049)	ND (0.049)	ND (0.031)	ND (0.031)	ND (0.041)	0.0988	ND (0.047)	ND (0.034)	NA	NA	NA	NA
Toluene	8260	5.4	mg/kg	NA	ND (0.037)	ND (0.049)	ND (0.049)	ND (0.031)	0.0354	ND (0.041)	0.216	ND (0.047)	ND (0.034)	NA	NA	NA	NA
Naphthalene	8260	43	mg/kg	NA	0.0696 J	0.157 J	ND (0.049)	ND (0.031)	0.0576	ND (0.041)	0.111	ND (0.047)	0.0487	NA	NA	NA	NA
p&m-Xylene	8260	78	mg/kg	NA	ND (0.037)	ND (0.049)	ND (0.049)	ND (0.031)	ND (0.031)	ND (0.041)	0.0598	ND (0.047)	ND (0.34)	NA	NA	NA	NA

a. Unless otherwise stated, cleanup level established in Title 18, Alaska Administrative Code, Chapter 75, Method 2, Table B1, under 40 inch zone, most conservative pathway.
b. U.S. Environmental Protection Agency (EPA) Region 9 Preliminary Remedial Goals for industrial soil, www.epa.gov/reion09/waste/sfund/prg/index. September 15, 1999.
c. EPA Region 3 Risk-based concentration tables, www.epa.gov/reg3hwmd/risk/riskmenu. September 15, 1999.
d. Code of Federal Regulations, Title 40, part 261, section 24, *Maximum Concentrations of Contaminants for the Toxicity Characteristic.*

-- Not applicable
mg/kg Milligrams per kilogram
mg/L Milligrams per liter
NA Not analyzed
ND Not detected at or above the method detection limit in parentheses
PR Project sample
QC Quality control sample
TCL Target compound list
TCLP Toxicity characteristic leaching procedure
VOCs Volatile organic compounds

Data Qualifiers:
J Estimated concentration

Notes:
Results highlighted with a box exceed regulatory levels or background concentrations for antimony, arsenic, and mercury.
Background samples are highlighted with bold text for reference.
All metal analyses results are presented. For other analyses, only those analytes that were detected in at least one sample are presented.

Table 3. Surface-Water Analytical Results

		Sample Number	99SWRDMK03	99SWRDMK01	99SWRDMK02	99SWRDME04	99SWRDME01	99SWRDME02	99SWRDME03
		Sample Location	**Kuskokwim River Background**	Kuskokwim River 1,100 ft Downstream	Kuskokwim River 550 ft Downstream	**Red Devil Creek Background**	Red Devil Creek Mouth	Red Devil Creek Below Settling Ponds	Red Devil Creek Below Settling Ponds
		Date Collected	**7/16/99**	7/16/99	7/16/99	**7/16/99**	7/16/99	7/16/99	7/16/99
		Sample Type	**PR**	PR	PR	**PR**	PR	PR	QC
Analyte	Method	Unit							
Target Analyte List									
Aluminum	6010B	mg/L	**1.71**	1.76	1.48	**ND (0.111)**	ND (0.111)	0.185	ND (0.111)
Antimony	7041	mg/L	**ND (0.00556)**	ND (0.0556)	ND (0.00556)	**ND (0.00556)**	0.366	0.0754	0.0878
Arsenic	7060	mg/L	**ND (0.00556)**	ND (0.00556)	ND (0.00556)	**ND (0.00556)**	0.116	0.0249	0.0303
Barium	6010B	mg/L	**0.0547**	0.0549	0.0508	**0.0232**	0.0298	0.0227	0.0227
Beryllium	7091	mg/L	**ND (0.000556)**	ND (0.000556)	ND (0.000556)	**ND (0.000556)**	ND (0.000556)	ND (0.000556)	ND (0.000556)
Cadmium	7131	mg/L	**ND (0.000556)**	ND (0.000556)	ND (0.000556)	**ND (0.000556)**	ND (0.000556)	ND (0.000556)	ND (0.000556)
Calcium	6010B	mg/L	**17.2**	17.3	17	**14.9**	16.2	14.2	14.1
Chromium	7191	mg/L	**ND (0.00556)**	ND (0.00556)	ND (0.00556)	**ND (0.00556)**	ND (0.00556)	ND (0.00556)	ND (0.00556)
Cobalt	6010B	mg/L	**ND (0.0111)**	ND (0.0111)	ND (0.0111)	**ND (0.0111)**	ND (0.0111)	ND (0.0111)	ND (0.0111)
Copper	6010B	mg/L	**ND (0.0111)**	ND (0.0111)	ND (0.0111)	**ND (0.0111)**	ND (0.0111)	ND (0.0111)	ND (0.0111)
Iron	6010B	mg/L	**3.49**	3.73	3.12	**0.0934**	0.089	0.106 J	ND (0.0556) J
Lead	7421	mg/L	**ND (0.00556)**	ND (0.00556)	ND (0.00556)	**ND (0.00556)**	ND (0.00556)	ND (0.00556)	ND (0.00556)
Magnesium	6010B	mg/L	**4.72**	4.73	4.59	**7.77**	10.4	7.61	7.59
Manganese	6010B	mg/L	**0.0832**	0.0877	0.0809	**ND (0.0222)**	ND (0.0222)	ND (0.0222)	ND (0.0222)
Mercury	7471	mg/L	**ND (0.000200)**	ND (0.000200)	ND (0.000200)	**ND (0.000200)**	0.00143	ND (0.000200)	0.000262
Nickel	6010B	mg/L	**ND (0.0222)**	ND (0.0222)	ND (0.0222)	**ND (0.0222)**	ND (0.0222)	ND (0.0222)	ND (0.0222)
Potassium	6010B	mg/L	**ND (5.0)**	ND (5.0)	ND (5.0)	**ND (5.00)**	ND (5.00)	ND (5.00)	ND (5.00)
Selenium	7740	mg/L	**ND (0.00556)**	ND (0.00556)	ND (0.00556)	**ND (0.00556)**	ND (0.00556)	ND (0.00556)	ND (0.00556)
Silver	7761	mg/L	**ND (0.00111)**	ND (0.00111)	ND (0.00111)	**ND (0.00111)**	ND (0.00111)	ND (0.00111)	ND (0.00111)
Sodium	6010B	mg/L	**2.04**	2.02	2.03	**1.53**	2.71	1.67	1.64
Thallium	7841	mg/L	**ND (0.00556)**	ND (0.00556)	ND (0.00556)	**ND (0.00556)**	ND (0.00556)	ND (0.00556)	ND (0.00556)
Vanadium	6010B	mg/L	**ND (0.0111)**	ND (0.0111)	ND (0.0111)	**ND (0.0111)**	ND (0.0111)	ND (0.0111)	ND (0.0111)
Zinc	6010B	mg/L	**ND (0.0222)**	ND (0.0222)	ND (0.0222)	**ND (0.0222)**	ND (0.0222)	ND (0.0222)	ND (0.0222)

ft Feet
mg/L Milligrams per liter
ND Not detected at or above the method detection limit in parentheses
PR Project sample
QC Quality control sample

Data Qualifiers:
J Estimated concentration

Notes:

Results highlighted with a box exceed background concentrations.
Background samples have been highlighted with bold text for reference.
All metal analyses results are presented. Samples collected from Red Devil Creek were also analyzed for volatile organic compounds, semivolatile organic compounds, and polychlorinated biphenyls/pesticides, which were not detected at or above the method detection limits.

Table 4. Sediment Analytical Results

Analyte	Method	Unit	99SDRDMK03	99SDRDMK01	99SDRDMK02	99SDRDME05	99SDRDME01	99SDRDME02	99SDRDME03	99SDRDME04
		Sample Location	**Kuskokwim River Background**	Kuskokwim River 1,100 ft Downstream	Kuskokwim River 550 ft Downstream	**Red Devil Creek Background**	Red Devil Creek Mouth	Red Devil Creek Below Settling Ponds	Red Devil Creek Below Settling Ponds	Red Devil Creek Below Settling Ponds
		Date Collected	**7/16/99**	7/16/99	7/16/99	**7/16/99**	7/16/99	7/16/99	7/16/99	7/16/99
		Sample Type	**PR**	PR	PR	**PR**	PR	PR	PR	QC
Target Analyte List										
Aluminum	6010B	mg/kg	**11,300**	6,790	10,500	**6,800**	5,680	8,420	6,650	8,490
Antimony	7041	mg/kg	**ND (0.303)**	7.78	ND (3.04)	**18.4**	238	618	963	809
Arsenic	7060	mg/kg	**7.1**	104	12.4	**61.8**	975	1,590	2,030	1,940
Barium	6010B	mg/kg	**164**	335	116	**125**	275	405	482	487
Beryllium	7091	mg/kg	**0.505**	0.215	0.399	**0.26**	0.712	0.922	0.963	1.01
Cadmium	7131	mg/kg	**0.399**	0.191	0.233	**0.315**	0.37	0.344	0.474	0.373
Calcium	6010B	mg/kg	**3,210**	2,070	3,330	**1,860**	3,150	6,340	3,360 J	6,790 J
Chromium	7191	mg/kg	**23.5**	15.3	24.2	**15.3**	18.8	24.9	18.8	24.3
Cobalt	6010B	mg/kg	**13.1**	8.55	7.87	**14.8**	16.5	14.2	10.5	11.4
Copper	6010B	mg/kg	**28.7**	22.3	13.5	**23.2**	40.4	49.6	40.9	47.3
Iron	6010B	mg/kg	**23,400**	31,800	22,600	**38,200**	35,500	32,700	28,400	31,800
Lead	7421	mg/kg	**8.37**	4.25	4.68	**7.76**	6.68	9.07	12.7	11.3
Magnesium	6010B	mg/kg	**4,820**	3,580	4,540	**2,220**	3,550	6,620	4,480 J	7,820 J
Manganese	6010B	mg/kg	**351**	1,190	406	**1,240**	1,120	711	584	769
Mercury	7471	mg/kg	**0.138**	55.5	0.185	**0.309**	166	48.4	292	399
Nickel	6010B	mg/kg	**30.3**	27	23.7	**35.5**	50.2	53.3	41.3	50.6
Potassium	6010B	mg/kg	**946**	874	747	**566**	1,670	2,100	2,030	1,880
Selenium	7740	mg/kg	**ND (0.303)**	ND (0.215)	ND (0.304)	**ND (0.230)**	0.243	ND (0.250)	ND (0.249)	ND (0.245)
Silver	7761	mg/kg	**0.074**	ND (0.0429)	ND (0.0608)	**0.13**	0.0963	0.0831	0.096	0.101
Sodium	6010B	mg/kg	**131**	89.1	113	**ND (49.2)**	127	214	181	199
Thallium	7841	mg/kg	**ND (0.303)**	ND (0.215)	ND (0.304)	**ND (0.230)**	0.636	0.296	0.304	0.333
Vanadium	6010B	mg/kg	**43**	28.8	30.3	**31.7**	21.5	24	20.1	26
Zinc	6010B	mg/kg	**82.7**	58	62.8	**87.2**	83.5	122	80.2	83.6

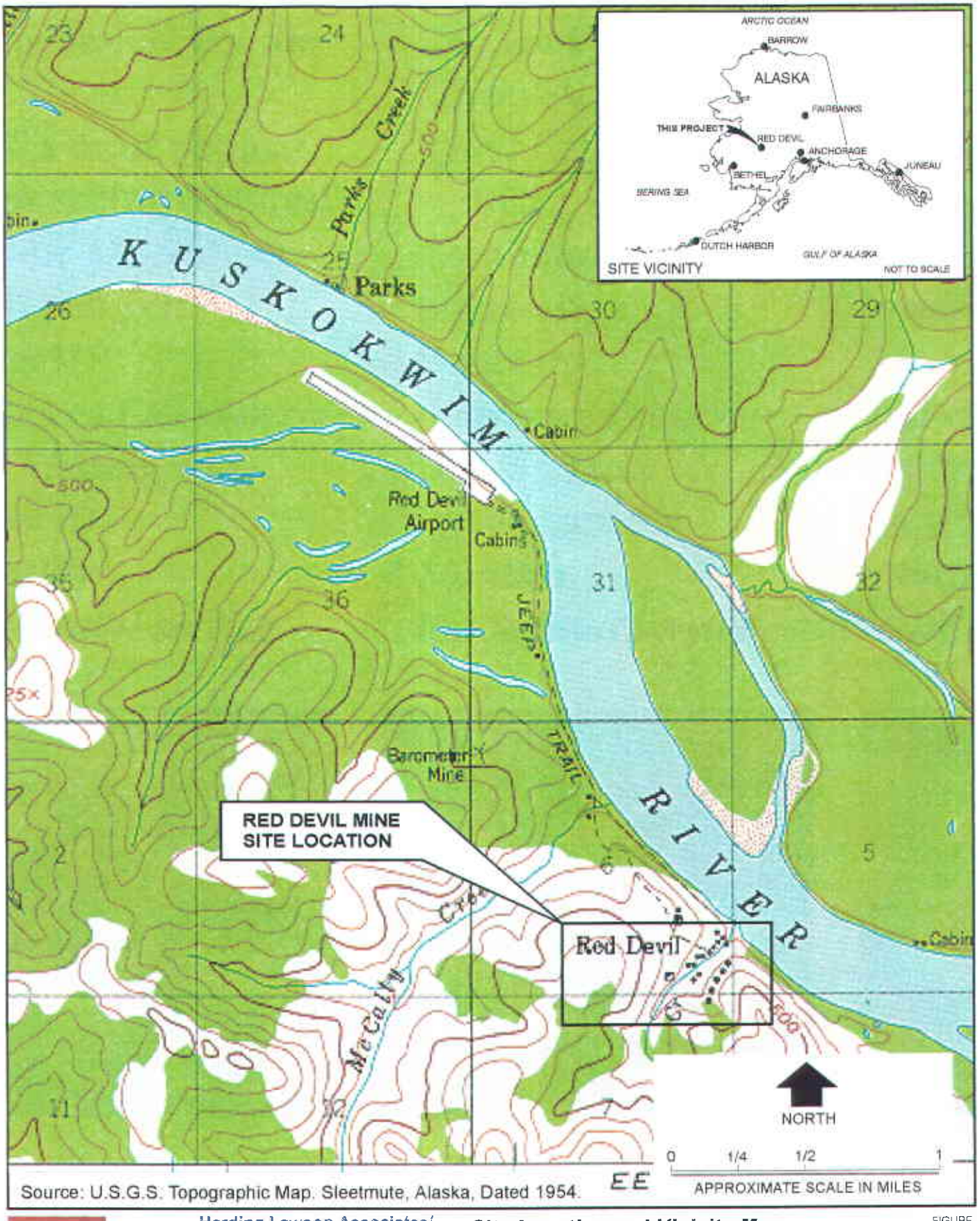
ft Feet
mg/kg Milligrams per kilogram
ND Not detected at or above the method detection limit in parentheses
PR Project sample
QC Quality control sample

Data Qualifiers:
J Estimated concentration

Notes:
Background samples have been highlighted with bold text for reference.
Results highlighted with a box exceed the background concentration.

FIGURES

FIGURES



Source: U.S.G.S. Topographic Map. Sleetmute, Alaska, Dated 1954.

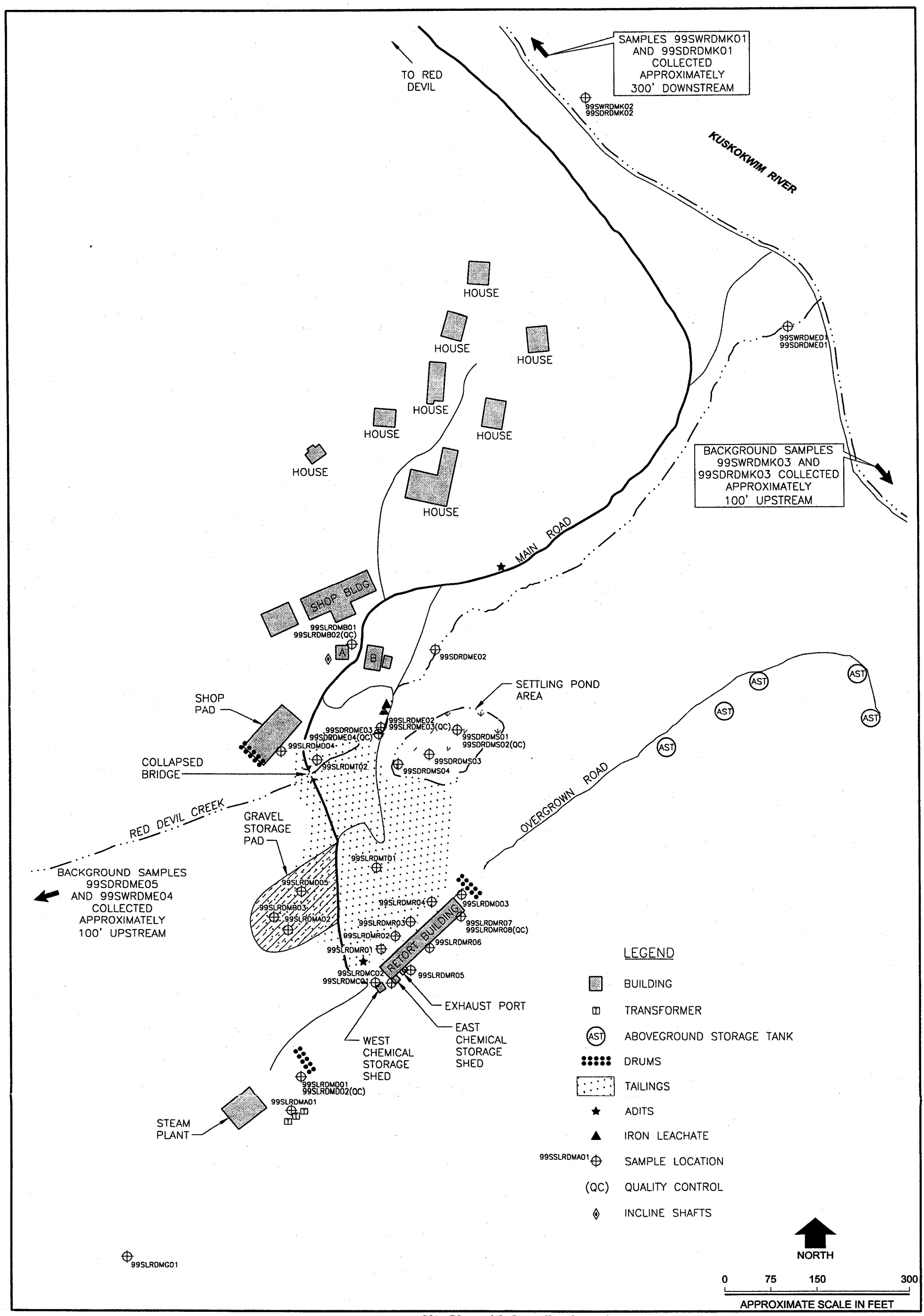
Harding Lawson Associates/
Wilder Construction Company
Joint Venture

Site Location and Vicinity Map

Limited Waste Removal Action Report
Red Devil, Alaska

FIGURE 1

DRAWN	PROJECT NUMBER	APPROVED	DATE	FILE NAME
CEH	47411		11/99	47411a3.cdr



Harding Lawson Associates/
Wilder Construction Company
Joint Venture

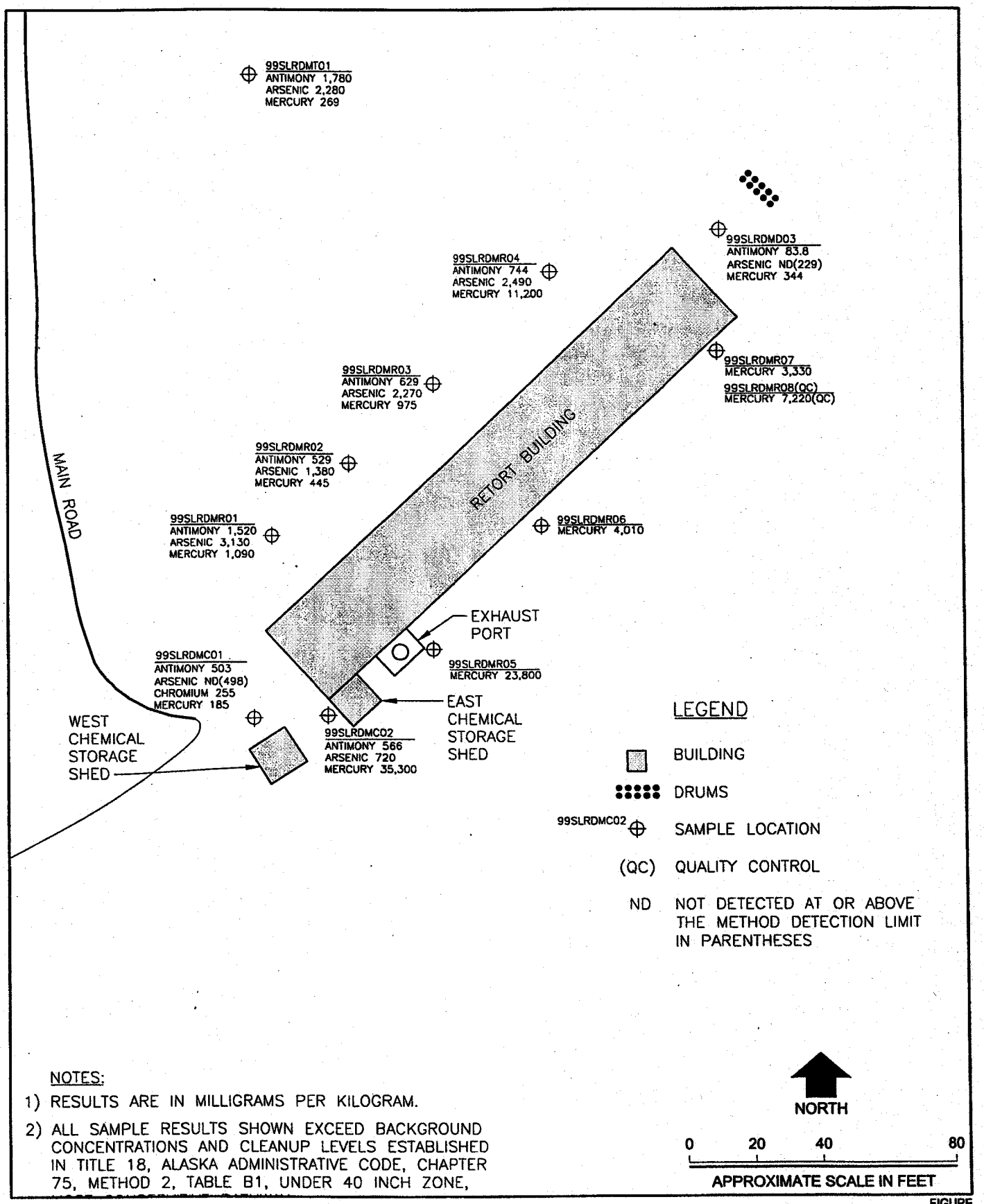
WILDER

Site Plan with Sampling Locations

Limited Waste Removal Action Report
Red Devil, Alaska

FIGURE **2**

DRAWN	PROJECT NUMBER	APPROVED	DATE	FILE NAME
CEH	47411		10/99	47411a1.dwg



NOTES:

1) RESULTS ARE IN MILLIGRAMS PER KILOGRAM.

2) ALL SAMPLE RESULTS SHOWN EXCEED BACKGROUND CONCENTRATIONS AND CLEANUP LEVELS ESTABLISHED IN TITLE 18, ALASKA ADMINISTRATIVE CODE, CHAPTER 75, METHOD 2, TABLE B1, UNDER 40 INCH ZONE,

HLA WILDER

Harding Lawson Associates/ Wilder Construction Company
Joint Venture

Selected Results for Samples Collected Near the Retort Building

Limited Waste Removal Action Report
Red Devil, Alaska

FIGURE **3**

DRAWN	PROJECT NUMBER	APPROVED	DATE	FILE NAME
CEH	47411		10/99	47411a2.dwg

APPENDIX A

APPENDIX A

PHOTOGRAPHS

Whole and broken batteries piled on north side of Building A, June 23, 1998.

Batteries inside Building B, June 23, 1998.

Area of piled batteries north of Building A, after removal action. Location of Sample 99SLRDMB01 and 99SLRDMB02 (quality control), July 17, 1999.

EP-2 full of whole and broken batteries, July 17, 1999.

Batteries on gravel storage pad southeast of Red Devil Creek.
Sample 99SLRDMB03 collected from disturbed area in middle of photograph.

Three large transformers near Steam plant. Sample 99SLRDMA01 collected northwest of middle transformer.

Empty transformers on a gravel storage pad. Marker shows location of Sample 99SLRDMA02.

Chemical storage shed before removal activities, June 23, 1998.

West chemical storage shed before removal actions, June 23, 1998.

West chemical storage shed with half of the roof removed, July 17, 1999.

West chemical storage shed after removal of chemicals.

Removing roof from east chemical storage shed.

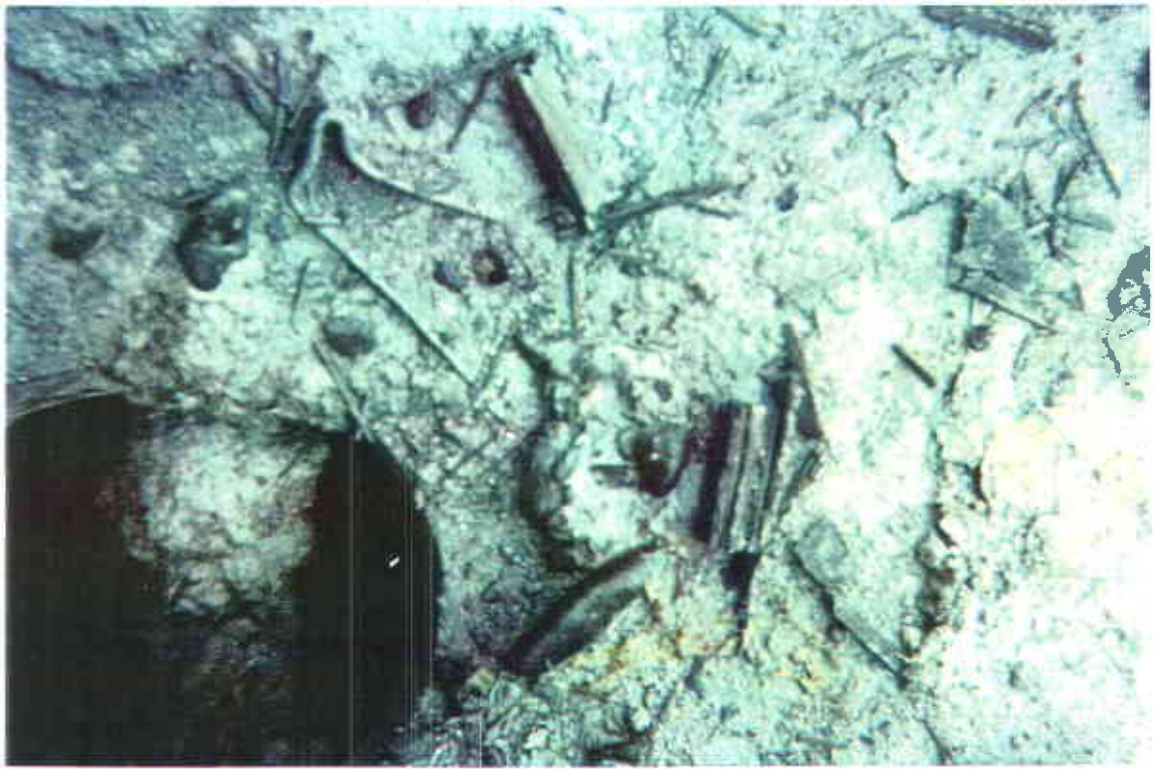
East chemical storage shed after removal of chemicals.

Supersacks™ and drums of chemicals from east and west chemical storage sheds.

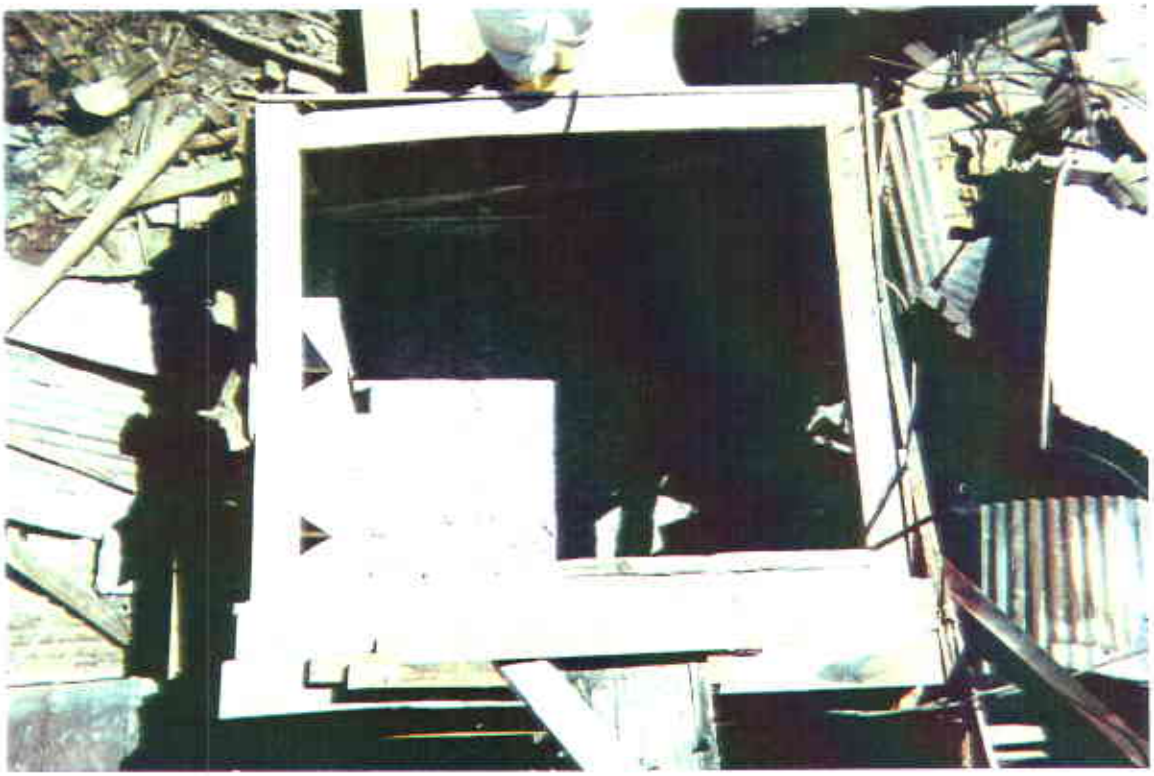
Location of Sample 99SLRDMC01 collected west of the west chemical storage shed.

Location of Sample 99SLRDMC02 collected south of east chemical storage shed.
Mercury was visible around the sample location.

Mercury around base of support post in Retort Building. A syringe was used to pick up some of the mercury.



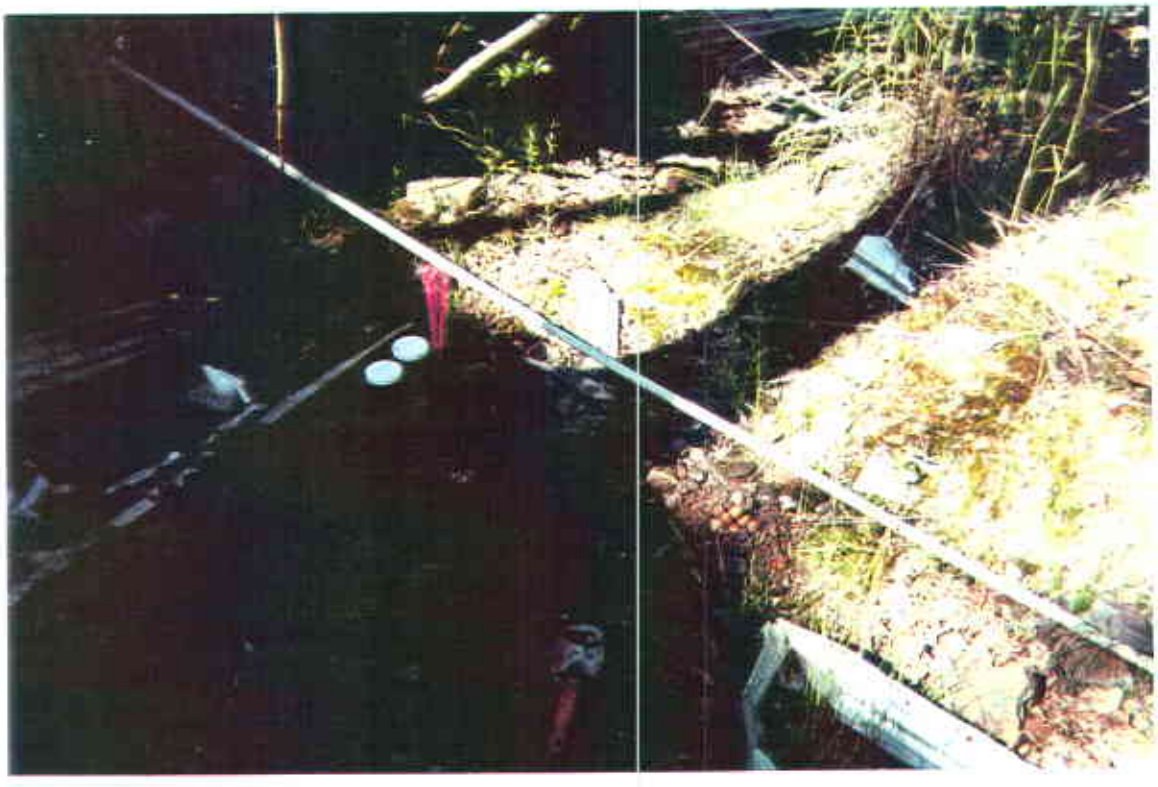
Mercury in the ash layer on top of wood and concrete cover of exhaust port at Retort Building.



Mercury-contaminated ash in bottom of exhaust port at Retort Building
A wood and concrete cover was removed to access the ash for removal.

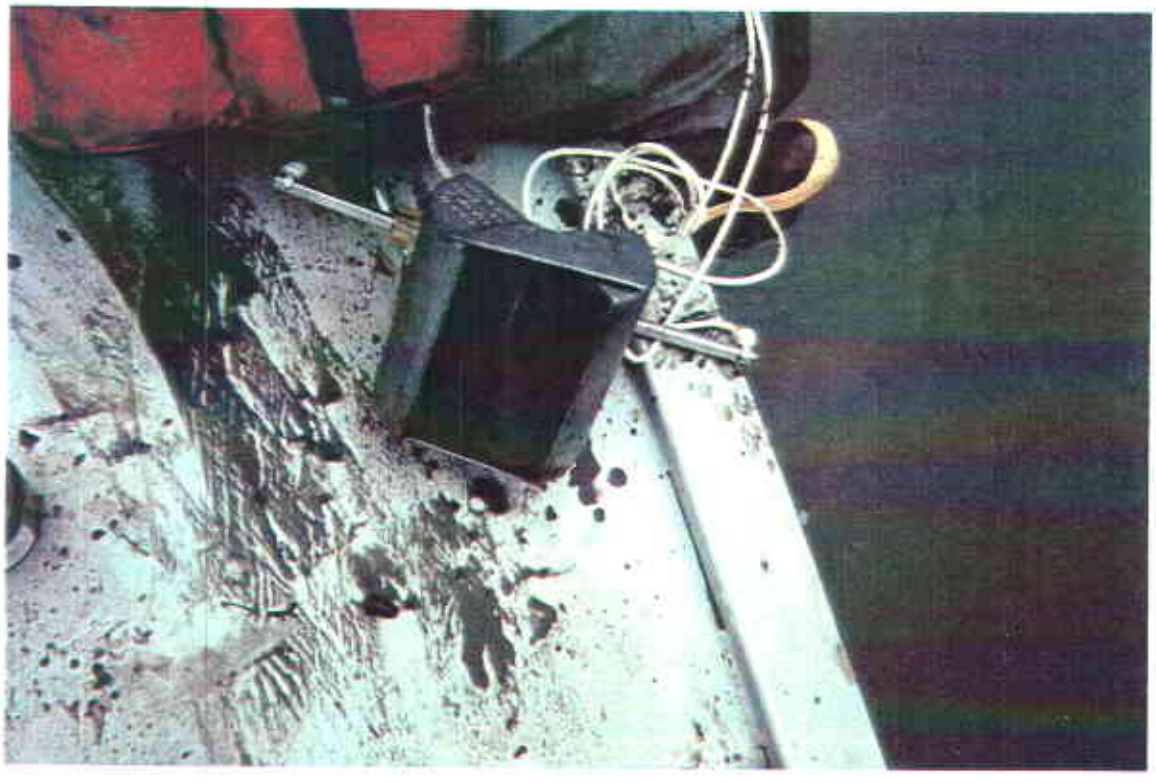
Sample 99SLRDMR05 was collected north of the exhaust port at the Retort Building.

Location of sample 99SLRDMR06 collected near the middle of the Retort Building on the east side.



Location of Sample 99SLRDMR07 and 99SLRDMR08 (quality control) collected near the north end of the Retort Building on the east side. Metal balls used in the mill process were found just below the surface soil here.

Collecting a surface water and sediment sample from the Kuskokwim River.



A Ponar dredge was used to collect sediment samples from the Kuskokwim River.

Collecting surface water and sediment sample from Red Devil Creek (99SWRDME01 and 99SDRME01).

Location of surface water Sample 99SWRDME02 and sediment sample 99SDRDME03. The access road leaving the creek was used to access the east side of mine site.

Settling pond area; no standing water, therefore only sediment samples were collected.

Tailing piles and Retort Building.

Emptying the oil bath air filter at Steam Plant. Both filters contained approximately 100 gallons of water and between 7 and 10 gallons of oil/water mix.

Draining oil from Ingersoll-Rand compressor at Steam Plant.

Draining oil from one of the vehicles on the gravel storage pad.

Drum storage area near Steam Plant.

Location of Samples 99SLRDMD01 and 99SLRDM02 (quality control) collected from drum storage area near steam plant.

Marker shows the location of Sample 99SLRDMD04 collected near shop pad.

Eight 5-gallon buckets of grease that were removed from site.

APPENDIX B

APPENDIX B

MATERIALS TRACKING/DISPOSAL LOG

Container ID #	Source of Material	Waste Description	Weight	Container	Date of work	SHIPPING NAME	profile #
D-1	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	500	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-2	Power Plant drum pile	Used Oil	424	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-3	Power Plant drum pile	Used Oil	466	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-4	Power Plant drum pile	Used Oil	499	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-5	Power Plant drum pile	Used Oil	470	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-6	Power Plant drum pile	Used Oil	490	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-7	Power Plant drum pile	Used Oil	460	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-8	Power Plant drum pile	Used Oil	470	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-9	Power Plant drum pile	Stoddard Solvent	440	DM55	7/20/99	Waste Flammable Liquid, NOS, (Stoddard)	
D-10	Power Plant drum pile	Used Oil	410	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-11	Power Plant drum pile	Used Oil	470	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-12	Power Plant drum pile	Used Oil	460	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-13	Power Plant drum pile	Used Oil	405	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-14	Power Plant drum pile	Stoddard Solvent	450	DM55	7/20/99	Waste Flammable Liquid, NOS, (Stoddard)	
D-15	Power Plant drum pile	Used Oil	490	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-16	Power Plant Interior	oil from switches,air cleaners, compressor	405	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-17	Shop building on west side of Red Devil Creek	Used Oil (consolidated or transferred to good drum)	460	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-18	Shop building on west side of Red Devil Creek	Used Oil (consolidated or transferred to good drum)	470	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-19	Shop building on west side of Red Devil Creek	Used Oil (consolidated or transferred to good drum)	490	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-20	Power Plant drum pile	Stoddard Solvent	340	DM55	7/20/99	Waste Flammable Liquid, NOS, (Stoddard)	
D-21	Concrete from Chimney base at Mill / Retort	MERCURY CONTAMINATED CONCRETE	595	DM55	7/22/99	Soil w/ Mercury >260 ppm	162412-00
D-22	Ash from top of Concrete Chimney Base at Mill	MERCURY CONTAMINATED SOIL	580	DM55	7/22/99	Soil w/ Mercury >260 ppm	162412-00
D-23	Concrete from Chimney base at Mill / Retort	MERCURY CONTAMINATED CONCRETE	660	DM55	7/22/99	Soil w/ Mercury >260 ppm	162412-00
D-24	Ash from top of Concrete Chimney Base at Mill	MERCURY CONTAMINATED SOIL	660	DM55	7/22/99	Soil w/ Mercury >260 ppm	162412-00
D-25	Scrap area below Mill / Retort building	Used Oil [suspected non PCB transformer oil]	225	DM55	7/23/99	NOT REGULATED BY DOT	CL2510
D-26	Southern Chemical Storage Building	COPPER SULFATE	260	DF55	7/19/99	NOT REGULATED BY DOT	162405-00
D-27	Southern Chemical Storage Building	SODIUM DICHROMATE DIHYDRATE (solid)	375	DF55	7/19/99	Waste Corrosive, Solid, Oxidizing, NOS (Chromic Acid)	162410-00
D-28	Southern Chemical Storage Building	COPPER SULFATE	310	DF55	7/19/99	NOT REGULATED BY DOT	162405-00
D-29	Southern Chemical Storage Building	SODIUM DICHROMATE DIHYDRATE (liquid)	522	DF85	7/19/99	Waste Corrosive, Liquid, Oxidizing, (Chromic Acid)	162409-00
D-30(D4A)	Shop building on west side of Red Devil Creek	GREASE (55 gallon drum, 5 gallon pail)	551	DM85	7/23/99	NOT REGULATED BY DOT	162407-00
D-31(D4B)	Shop building on west side of Red Devil Creek	GREASE (55 gallon drum, 5 gallon pail)	357	DM85	7/23/99	NOT REGULATED BY DOT	162407-00
D-32(D4C)	Shop building on west side of Red Devil Creek	GREASE (6- 5 gallon pails)	351	DM85	7/23/99	NOT REGULATED BY DOT	162407-00
D-33(D1A)	Scrap area below Mill / Rretort building	Suspected Transformer Oil (possible PCB's)	320	DM55	7/20/99	Polychlorinated Biphenyls	162408-00
D-34(D1B)	Scrap area below Mill bldg & xfrmr from housing area	Suspected Transformer Oil (possible PCB's)	593	DM55	7/20/99	Polychlorinated Biphenyls	162408-00
D-35(D5A)	Shop building on west side of Red Devil Creek	Used Oil (consolidated or transferred to good drum)					
D-36	Mercury recovered w/syringe in mill/retort area	Free mercury	5	CF	7/23/99	Waste Mercury, 8, UN2809, pgII	161411-00
D-37(D3A)	parts building on West side of Site	Antifreeze crystals / Barytes	335	DF55			

Prepared by Tom Johnston,
Philip Services Corp.

Container ID #	Source of Material	Waste Description	Weight	Container	Date of work	SHIPPING NAME	profile #
BAG-1	Southern Chemical Storage Building	POTASSIUM CARBONATE	515	1 cy bag	7/19/99	NOT REGULATED BY DOT	162403-00
BAG-2	Southern Chemical Storage Building	POTASSIUM CARBONATE	905	1 cy bag	7/19/99	NOT REGULATED BY DOT	162403-00
BAG-3	Southern Chemical Storage Building	POTASSIUM CARBONATE / dirt / debris	502	1 cy bag	7/19/99	NOT REGULATED BY DOT	162403-00
BAG-4	Southern Chemical Storage Building	POTASSIUM CARBONATE	890	1 cy bag	7/19/99	NOT REGULATED BY DOT	162403-00
BAG-5	Northern Chemical Storage Building	POTASSIUM CARBONATE	695	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-6	Northern Chemical Storage Building	POTASSIUM CARBONATE	770	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-7	Northern Chemical Storage Building	POTASSIUM CARBONATE	800	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-8	Northern Chemical Storage Building	POTASSIUM CARBONATE	550	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-9	Northern Chemical Storage Building	POTASSIUM CARBONATE / dirt / debris	910	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-10	Ash from area below chimney	MERCURY CONTAMINATED SOIL	945	1 cy bag	7/22/99	Hazardous Waste Solid, NOS (Mercury)	162412-00
BAG-11	Clean-up from around chemical storage buildings	POTASSIUM CARBONATE / dirt / debris	355	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-12	Southern Chemical Storage Building	SODIUM HYDROXIDE	280	1 cy bag	7/19/99	Waste Sodium Hydroxide, Solid	162404-00
BAG-13	Ash from area below chimney	MERCURY CONTAMINATED SOIL	830	1 cy bag	7/22/99	Hazardous Waste Solid, NOS (Mercury)	162412-00
BAG-14	Clean-up from around chemical storage buildings	POTASSIUM CARBONATE / dirt / debris	695	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-15	Ash from area below chimney	MERCURY CONTAMINATED SOIL	1550	1 cy bag	7/22/99	Hazardous Waste Solid, NOS (Mercury)	162412-00
BAG-16	Southern Chemical Storage Building	SODIUM HYDROXIDE	275	1 cy bag	7/19/99	Waste Sodium Hydroxide, Solid	162404-00
BAG-17	Clean-up from around chemical storage buildings	POTASSIUM CARBONATE / dirt / debris	890	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-18	PPE used during cleanup of chemicals/mercury	PPE (Mercury <260ppm)	105	1 cy bag	7/23/99	Hazardous Waste Solid, NOS (Mercury)	16413-00
BAG-19	PPE used during cleanup of chemicals/mercury	PPE (Mercury <260ppm)	180	1 cy bag	7/23/99	Hazardous Waste Solid, NOS (Mercury)	16413-00
BOX-1	Buildings on west side of site	LEAD ACID BATTERIES	1385	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
BOX-2	Buildings on west side of site	LEAD ACID BATTERIES	1295	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
BOX-3	Buildings on west side of site	LEAD ACID BATTERIES	1123	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
BOX-4	Buildings on west side of site	LEAD ACID BATTERIES	1415	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
BOX-5	Scrap area below Mill / Retort building	LEAD ACID BATTERIES	1150	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
		Total weight of all containers=	**34778**				

	D-1	Used Oil (consolidated or transferred to good drum)	500	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-2	Used Oil	424	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-3	Used Oil	466	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-4	Used Oil	499	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-5	Used Oil	470	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-6	Used Oil	490	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-7	Used Oil	460	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-8	Used Oil	470	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-10	Used Oil	410	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-11	Used Oil	470	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-12	Used Oil	460	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-13	Used Oil	405	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-15	Used Oil	490	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-16	oil from switches,air cleaners, compressor	405	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-17	Used Oil (consolidated or transferred to good drum)	460	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-18	Used Oil (consolidated or transferred to good drum)	470	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-19	Used Oil (consolidated or transferred to good drum)	490	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-25	Used Oil [suspected non PCB transformer oil]	225	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-35	Used Oil (consolidated or transferred to good drum)	450	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
9197E, 1a	D-36	Free mercury	5	CF	Waste Mercury, 8, UN2809, pgII	161411-00	BEI-Georgetown
9197E, 1b	BAG-10	MERCURY CONTAMINATED SOIL	945	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	162412-00	BEI-Georgetown
	BAG-13	MERCURY CONTAMINATED SOIL	830	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	162412-00	BEI-Georgetown
	BAG-15	MERCURY CONTAMINATED SOIL	1550	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	162412-00	BEI-Georgetown
9197E, 1c	BAG-18	PPE (Mercury <260ppm)	105	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	16413-00	BEI-Georgetown
	BAG-19	PPE (Mercury <260ppm)	180	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	16413-00	BEI-Georgetown
9197E, 1d	D-21	MERCURY CONTAMINATED CONCRETE	595	DM55	Soil w/ Mercury >260 ppm	162412-00	BEI-Georgetown
	D-22	MERCURY CONTAMINATED SOIL	580	DM55	Soil w/ Mercury >260 ppm	162412-00	BEI-Georgetown
	D-23	MERCURY CONTAMINATED CONCRETE	660	DM55	Soil w/ Mercury >260 ppm	162412-00	BEI-Georgetown
	D-24	MERCURY CONTAMINATED SOIL	660	DM55	Soil w/ Mercury >260 ppm	162412-00	BEI-Georgetown
9197E, 2a	BAG-12	SODIUM HYDROXIDE	280	1 cy bag	Waste Sodium Hydroxide, Solid	162404-00	BEI-Georgetown
	BAG-16	SODIUM HYDROXIDE	275	1 cy bag	Waste Sodium Hydroxide, Solid	162404-00	BEI-Georgetown
9197E, 2b	D-9	Stoddard Solvent	440	DM55	Waste Flammable Liquid, NOS, (Stoddard)	162420-00	BEI-Georgetown
	D-14	Stoddard Solvent	450	DM55	Waste Flammable Liquid, NOS, (Stoddard)	162420-00	BEI-Georgetown
	D-20	Stoddard Solvent	340	DM55	Waste Flammable Liquid, NOS, (Stoddard)	162420-00	BEI-Georgetown
9197E, 2c	D-33	Suspected Transformer Oil (possible PCB's)	320	DM55	Polychlorinated Biphenyls	162408-00	BEI-Georgetown

	D-1	Used Oil (consolidated or transferred to good drum)	500	DM55	NOT REGULATED BY DOT	CL2510	Energy Recovery
	D-34	Suspected Transformer Oil (possible PCB's)	593	DM55	Polychlorinated Biphenyls	162408-00	BEI-Georgetown
9197E, 2d	D-30	GREASE (55 gallon drum, 5 gallon pail)	551	DM85	NOT REGULATED BY DOT	162407-00	BEI-Georgetown
	D-31	GREASE (55 gallon drum, 5 gallon pail)	357	DM85	NOT REGULATED BY DOT	162407-00	BEI-Georgetown
	D-32	GREASE (6- 5 gallon pails)	351	DM85	NOT REGULATED BY DOT	162407-00	BEI-Georgetown
9197E, 2e	D-37	Antifreeze crystals / Barytes	335	DF55	NOT REGULATED BY DOT		BEI-Georgetown
	D-27	SODIUM DICHROMATE DIHYDRATE (solid)	375	DF55	Waste Corrosive, Solid, Oxidizing, NOS (Chromic Acid)	162410-00	BEI-Georgetown
	D-29	SODIUM DICHROMATE DIHYDRATE (liquid)	522	DF55	Waste Corrosive, Liquid, Oxidizing, (Chromic Acid)	162409-00	BEI-Georgetown
9197A, 1a	BAG-1	POTASSIUM CARBONATE	515	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-2	POTASSIUM CARBONATE	905	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-3	POTASSIUM CARBONATE / dirt / debris	502	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-4	POTASSIUM CARBONATE	890	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-5	POTASSIUM CARBONATE	695	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-6	POTASSIUM CARBONATE	770	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-7	POTASSIUM CARBONATE	800	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-8	POTASSIUM CARBONATE	550	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-9	POTASSIUM CARBONATE / dirt / debris	910	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-11	POTASSIUM CARBONATE / dirt / debris	355	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-14	POTASSIUM CARBONATE / dirt / debris	695	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
	BAG-17	POTASSIUM CARBONATE / dirt / debris	890	1 cy bag	NOT REGULATED BY DOT	162403-00	BEI-Georgetown
9197A, 1b	D-28	COPPER SULFATE	310	DF55	NOT REGULATED BY DOT	162405-00	BEI-Georgetown
	D-26	COPPER SULFATE	260	DF55	NOT REGULATED BY DOT	162405-00	BEI-Georgetown
9197J, 1a	BOX-1	LEAD ACID BATTERIES	1385	EP-2 box	Batteries, Wet, Filled with Acid	162406-00	Exide
	BOX-2	LEAD ACID BATTERIES	1295	EP-2 box	Batteries, Wet, Filled with Acid	162406-00	Exide
	BOX-3	LEAD ACID BATTERIES	1123	EP-2 box	Batteries, Wet, Filled with Acid	162406-00	Exide
	BOX-4	LEAD ACID BATTERIES	1415	EP-2 box	Batteries, Wet, Filled with Acid	162406-00	Exide
	BOX-5	LEAD ACID BATTERIES	1150	EP-2 box	Batteries, Wet, Filled with Acid	162406-00	Exide

Container ID #	Source of Material	Waste Description	Weight	Container	Date of work	SHIPPING NAME	profile #
D-1	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	500	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-2	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	424	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-3	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	466	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-4	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	499	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-5	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	470	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-6	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	490	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-7	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	460	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-8	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	470	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-10	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	410	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-11	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	470	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-12	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	460	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-13	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	405	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-15	Power Plant drum pile	Used Oil (consolidated or transferred to good drum)	490	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-16	Power Plant Interior	Used Oil from switches,air cleaners, compressor	405	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-17	Shop building on west side of Red Devil Creek	Used Oil (consolidated or transferred to good drum)	460	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-18	Shop building on west side of Red Devil Creek	Used Oil (consolidated or transferred to good drum)	470	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-19	Shop building on west side of Red Devil Creek	Used Oil (consolidated or transferred to good drum)	490	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-25	Scrap area below Mill / Rretort building	Used Oil [suspected non PCB transformer oil]	225	DM55	7/23/99	NOT REGULATED BY DOT	CL2510
D-26	Southern Chemical Storage Building	COPPER SULFATE	260	DF55	7/19/99	NOT REGULATED BY DOT	162405-00
D-28	Southern Chemical Storage Building	COPPER SULFATE	310	DF55	7/19/99	NOT REGULATED BY DOT	162405-00
D-30	Shop building on west side of Red Devil Creek	GREASE (55 gallon drum, 5 gallon pail)	551	DM85	7/23/99	NOT REGULATED BY DOT	162407-00
D-31	Shop building on west side of Red Devil Creek	GREASE (55 gallon drum, 5 gallon pail)	357	DM85	7/23/99	NOT REGULATED BY DOT	162407-00
D-32	Shop building on west side of Red Devil Creek	GREASE (6- 5 gallon pails)	351	DM85	7/23/99	NOT REGULATED BY DOT	162407-00
D-35	Shop building on west side of Red Devil Creek	Used Oil (consolidated or transferred to good drum)	450	DM55	7/20/99	NOT REGULATED BY DOT	CL2510
D-37	parts building on West side of Site	Barytes / Antifreeze Crystals	335	DF55	7/26/99	NOT REGULATED BY DOT	
BAG-1	Southern Chemical Storage Building	POTASSIUM CARBONATE	515	1 cy bag	7/19/99	NOT REGULATED BY DOT	162403-00
BAG-2	Southern Chemical Storage Building	POTASSIUM CARBONATE	905	1 cy bag	7/19/99	NOT REGULATED BY DOT	162403-00
BAG-3	Southern Chemical Storage Building	POTASSIUM CARBONATE / dirt / debris	502	1 cy bag	7/19/99	NOT REGULATED BY DOT	162403-00
BAG-4	Southern Chemical Storage Building	POTASSIUM CARBONATE	890	1 cy bag	7/19/99	NOT REGULATED BY DOT	162403-00
BAG-5	Northern Chemical Storage Building	POTASSIUM CARBONATE	695	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-6	Northern Chemical Storage Building	POTASSIUM CARBONATE	770	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-7	Northern Chemical Storage Building	POTASSIUM CARBONATE	800	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-8	Northern Chemical Storage Building	POTASSIUM CARBONATE	550	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-9	Northern Chemical Storage Building	POTASSIUM CARBONATE / dirt / debris	910	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-11	Clean-up from around chemical storage buildings	POTASSIUM CARBONATE / dirt / debris	355	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BAG-14	Clean-up from around chemical storage buildings	POTASSIUM CARBONATE / dirt / debris	695	1 cy bag	7/19/99	Waste Sodium Hydroxide, Solid	162404-00
BAG-17	Clean-up from around chemical storage buildings	POTASSIUM CARBONATE / dirt / debris	890	1 cy bag	7/20/99	NOT REGULATED BY DOT	162403-00
BOX-1	Buildings on west side of site	LEAD ACID BATTERIES	1385	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
BOX-2	Buildings on west side of site	LEAD ACID BATTERIES	1295	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
BOX-3	Buildings on west side of site	LEAD ACID BATTERIES	1123	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
BOX-4	Buildings on west side of site	LEAD ACID BATTERIES	1415	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
BOX-5	Scrap area below Mill / Rretort building	LEAD ACID BATTERIES	1150	EP-2 box	7/18/99	Batteries, Wet, Filled with Acid	162406-00
		Total weight of non hazardous waste items=	**25523**				

Prepared by Tom Johnston,
Philip Services Corp.
11/1/99

Container ID #	Waste Description	Weight	Source of Material	Container	Date of work	SHIPPING NAME	profile #
D-09	Stoddard Solvent	440	Power Plant drum pile	DM55	7/20/99	Waste Flammable Liquid, NOS, (Stoddard)	
D-14	Stoddard Solvent	450	Power Plant drum pile	DM55	7/20/99	Waste Flammable Liquid, NOS, (Stoddard)	
D-20	Stoddard Solvent	340	Power Plant drum pile	DM55	7/20/99	Waste Flammable Liquid, NOS, (Stoddard)	
D-21	MERCURY CONTAMINATED CONCRETE	595	Concrete from Chimney base at Mill / Retort	DM55	7/22/99	Soil w/ Mercury >260 ppm	162412-00
D-22	MERCURY CONTAMINATED SOIL	580	Ash from top of Concrete Chimney Base at Mill	DM55	7/22/99	Soil w/ Mercury >260 ppm	162412-00
D-23	MERCURY CONTAMINATED CONCRETE	660	Concrete from Chimney base at Mill / Retort	DM55	7/22/99	Soil w/ Mercury >260 ppm	162412-00
D-24	MERCURY CONTAMINATED SOIL	660	Ash from top of Concrete Chimney Base at Mill	DM55	7/22/99	Soil w/ Mercury >260 ppm	162412-00
D-27	SODIUM DICHROMATE DIHYDRATE (solid)	375	Southern Chemical Storage Building	DF55	7/19/99	Waste Corrosive, Solid, Oxidizing, NOS (Chromic Acid)	162410-00
D-29	SODIUM DICHROMATE DIHYDRATE (liquid)	522	Southern Chemical Storage Building	DF55	7/19/99	Waste Corrosive, Liquid, Oxidizing, (Chromic Acid)	162409-00
D-33	Suspected Transformer Oil (possible PCB's)	320	Scrap area below Mill / Rretort building	DM55	7/20/99	Polychlorinated Biphenyls	162408-00
D-34	Suspected Transformer Oil (possible PCB's)	593	Scrap area below Mill bldg & xfrmr from housing area	DM55	7/20/99	Polychlorinated Biphenyls	162408-00
D-36	Free mercury	5	Mercury recovered w/syringe in mill/retort area	DF55	7/23/99	Waste Mercury, 8, UN2809, pgII	161411-00
BAG-12	SODIUM HYDROXIDE	280	Southern Chemical Storage Building	1 cy bag	7/19/99	Waste Sodium Hydroxide, Solid	162404-00
BAG-16	SODIUM HYDROXIDE	275	Southern Chemical Storage Building	1 cy bag	7/19/99	Waste Sodium Hydroxide, Solid	162404-00
BAG-13	MERCURY CONTAMINATED SOIL	830	Ash from area below chimney	1 cy bag	7/22/99	Hazardous Waste Solid, NOS (Mercury)	162412-00
BAG-10	MERCURY CONTAMINATED SOIL	945	Ash from area below chimney	1 cy bag	7/22/99	Hazardous Waste Solid, NOS (Mercury)	162412-00
BAG-15	MERCURY CONTAMINATED SOIL	1550	Ash from area below chimney	1 cy bag	7/22/99	Hazardous Waste Solid, NOS (Mercury)	162412-00
BAG-18	PPE (Mercury <260ppm)	105	PPE used during cleanup of chemicals/mercury	1 cy bag	7/23/99	Hazardous Waste Solid, NOS (Mercury)	16413-00
BAG-19	PPE (Mercury <260ppm)	180	PPE used during cleanup of chemicals/mercury	1 cy bag	7/23/99	Hazardous Waste Solid, NOS (Mercury)	16413-00
	Total weight of hazardous waste items=	***9705***					

Prepared by Tom Johnston,
Philip Services Corp.
11/1/99

Manifest, Line #	Waste Description	Container ID #	Weight	Container	SHIPPING NAME	profile #
Hazardous Waste Manifest #1						
9197E, 1a	Mercury recovered w/syringe in mill/retort area	D-36	5	DF55	Waste Mercury, 8, UN2809, pgII	161411-00
9197E, 1b	MERCURY CONTAMINATED CONCRETE	D-21	595	DM55	Hazardous Waste Solid, NOS (Mercury)	162412-00
	MERCURY CONTAMINATED CONCRETE	D-23	660	DM55	Hazardous Waste Solid, NOS (Mercury)	162412-00
	MERCURY CONTAMINATED SOIL	D-22	580	DM55	Hazardous Waste Solid, NOS (Mercury)	162412-00
	MERCURY CONTAMINATED SOIL	D-24	660	DM55	Hazardous Waste Solid, NOS (Mercury)	162412-00
9197E, 1c	Mercury Contaminated Ash (Mercury >260ppm)	BAG-13	830	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	162412-00
	Mercury Contaminated Ash (Mercury >260ppm)	BAG-10	945	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	162412-00
	Mercury Contaminated Ash (Mercury >260ppm)	BAG-15	1550	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	162412-00
9197E, 1d	PPE used during cleanup of chemicals/mercury (<260ppm)	BAG-18	105	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	16413-00
	PPE used during cleanup of chemicals/mercury (<260ppm)	BAG-19	180	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	16413-00
9197E, 2a	SODIUM HYDROXIDE	BAG-12	280	1 cy bag	Waste Sodium Hydroxide, Solid	162404-00
	SODIUM HYDROXIDE	BAG-16	275	1 cy bag	Waste Sodium Hydroxide, Solid	162404-00
9197E, 2b	Stoddard Solvent	D-09	440	DM55	Waste Flammable Liquid, NOS, (Stoddard)	
	Stoddard Solvent	D-14	450	DM55	Waste Flammable Liquid, NOS, (Stoddard)	
	Stoddard Solvent	D-20	340	DM55	Waste Flammable Liquid, NOS, (Stoddard)	
9197E, 2c	Suspected Transformer Oil (possible PCB's)	D-33	320	DM55	Polychlorinated Biphenyls	162408-00
	Suspected Transformer Oil (possible PCB's)	D-34	593	DM55	Polychlorinated Biphenyls	162408-00
9197E, 2d	GREASE (55 gallon drum, 5 gallon pail)	D-30	551	DM85	NOT REGULATED BY DOT	162407-00
	GREASE (55 gallon drum, 5 gallon pail)	D-31	357	DM85	NOT REGULATED BY DOT	162407-00
	GREASE (6- 5 gallon pails)	D-32	351	DM85	NOT REGULATED BY DOT	162407-00
9197E, 2e	Barytes / Antifreeze Crystals	D-36	335	DF55	NOT REGULATED BY DOT	
Hazardous Waste Manifest #2						
9197F, 1a	SODIUM DICHROMATE DIHYDRATE (solid)	D-27	375	DF55	Waste Corrosive, Liquid, Oxidizing, (Chromic Acid)	162409-00
9197F, 1b	SODIUM DICHROMATE DIHYDRATE (liquid)	D-29	522	DF55	Waste Corrosive, Solid, Oxidizing, NOS (Chromic Acid)	162410-00

Prepared by Tom Johnston,
Philip Services Corp.
11/1/99

Manifest, Line #	Waste Description	Container ID #	Weight	Container	SHIPPING NAME	profile #
Non Hazardous Waste Manifest #1						
RDEV1,1a	Used Oil (consolidated or transferred to good drum)	D-1	500	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-2	424	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-3	466	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-4	499	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-5	470	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-6	490	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-7	460	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-8	470	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-10	410	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-11	470	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-12	460	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-13	405	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-15	490	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil from switches,air cleaners, compressor	D-16	405	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-17	460	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-18	470	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-19	490	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil [suspected non PCB transformer oil]	D-25	225	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-35	450	DM55	NOT REGULATED BY DOT	CL2510
	Total weight of 19 drums (55 gallon) used oil =		**8514**			
Non Hazardous Waste Manifest #2						
RDEV2, 1a	POTASSIUM CARBONATE	BAG-1	515	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-2	905	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE / dirt / debris	BAG-3	502	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-4	890	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-5	695	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-6	770	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-7	800	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-8	550	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE / dirt / debris	BAG-9	910	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE / dirt / debris	BAG-14	695	1 cy bag	NOT REGULATED BY DOT	162404-00
	POTASSIUM CARBONATE / dirt / debris	BAG-11	355	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE / dirt / debris	BAG-17	890	1 cy bag	NOT REGULATED BY DOT	162403-00
	Total weight for 12 supersacks of Potassium Carbonate=		**8477**			
RDEV2, 1b	COPPER SULFATE	D-26	260	DF55	NOT REGULATED BY DOT	162405-00
RDEV2, 1b	COPPER SULFATE	D-28	310	DF55	NOT REGULATED BY DOT	162405-00
	Total weight for 2 blue plastic drums of Copper Sulfate =		**570**			
Non Hazardous Waste Manifest #3						
RDEV3, 1a	LEAD ACID BATTERIES	BOX-1	1385	EP-2 box	Batteries, Wet, Filled with Acid	162406-00
	LEAD ACID BATTERIES	BOX-2	1295	EP-2 box	Batteries, Wet, Filled with Acid	162406-00

Prepared by Tom Johnston,
Philip Services Corp.
11/1/99

Manifest, Line #	Waste Description	Container ID #	Weight	Container	SHIPPING NAME	profile #
	LEAD ACID BATTERIES	BOX-3	1123	EP-2 box	Batteries, Wet, Filled with Acid	162406-00
	LEAD ACID BATTERIES	BOX-4	1415	EP-2 box	Batteries, Wet, Filled with Acid	162406-00
--------	LEAD ACID BATTERIES	BOX-5	1150	EP-2 box	Batteries, Wet, Filled with Acid	162406-00
	Total weight for 5 EP-2 boxes containing broken batteries =		**6368**			
	Total weight of hazardous materials/waste		**59157**			

Prepared by Tom Johnston,
Philip Services Corp.
11/1/99

Cell: B35
Comment: Tom Johnston:
This is material found in drum in Southern Chemical Storage Bldg. marked Aeroxanthate.

Prepared by Tom Johnston,
Philip Services Corp.
11/1/99

Manifest, Line #	Waste Description	Container ID #	Weight	Container	SHIPPING NAME	profile #
1a	Mercury recovered w/syringe in mill/retort area	D-36	5	FB	Waste Mercury, 8, UN2809, pgII	161411-00
1b	MERCURY CONTAMINATED CONCRETE	D-21	595	DM55	Hazardous Waste Solid, NOS (Mercury)	162412-00
	MERCURY CONTAMINATED CONCRETE	D-23	660	DM55	Hazardous Waste Solid, NOS (Mercury)	162412-00
	MERCURY CONTAMINATED SOIL	D-22	580	DM55	Hazardous Waste Solid, NOS (Mercury)	162412-00
	MERCURY CONTAMINATED SOIL	D-24	660	DM55	Hazardous Waste Solid, NOS (Mercury)	162412-00
1c	Mercury Contaminated Ash (Mercury >260ppm)	BAG-13	830	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	162412-00
	Mercury Contaminated Ash (Mercury >260ppm)	BAG-10	945	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	162412-00
	Mercury Contaminated Ash (Mercury >260ppm)	BAG-15	1550	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	162412-00
1d	PPE used during cleanup of chemicals/mercury (<260ppm)	BAG-18	105	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	16413-00
	PPE used during cleanup of chemicals/mercury (<260ppm)	BAG-19	180	1 cy bag	Hazardous Waste Solid, NOS (Mercury)	16413-00
2a	SODIUM HYDROXIDE	BAG-12	280	1 cy bag	Waste Sodium Hydroxide, Solid	162404-00
	SODIUM HYDROXIDE	BAG-16	275	1 cy bag	Waste Sodium Hydroxide, Solid	162404-00
2b	Stoddard Solvent	D-9	440	DM55	Waste Flammable Liquid, NOS, (Stoddard)	
	Stoddard Solvent	D-14	450	DM55	Waste Flammable Liquid, NOS, (Stoddard)	
	Stoddard Solvent	D-20	340	DM55	Waste Flammable Liquid, NOS, (Stoddard)	
2c	Suspected Transformer Oil (possible PCB's)	D-33	320	DM55	Polychlorinated Biphenyls	162408-00
	Suspected Transformer Oil (possible PCB's)	D-34	593	DM55	Polychlorinated Biphenyls	162408-00
NON-HAZARDOUS WASTE ON THIS LOAD						
2d	GREASE (55 gallon drum, 5 gallon pail)	D-30	551	DM85	NOT REGULATED BY DOT	162407-00
	GREASE (55 gallon drum, 5 gallon pail)	D-31	357	DM85	NOT REGULATED BY DOT	162407-00
	GREASE (6- 5 gallon pails)	D-32	351	DM85	NOT REGULATED BY DOT	162407-00
2e	Barytes / Antifreeze Crystals	D-36	335	DF55	NOT REGULATED BY DOT	
These items are on separate manifests						
1a	SODIUM DICHROMATE DIHYDRATE (solid)	D-27	375	DF55	Waste Corrosive, Liquid, Oxidizing, (Chromic Acid)	162409-00
1b	SODIUM DICHROMATE DIHYDRATE (liquid)	D-29	522	DF55	Waste Corrosive, Solid, Oxidizing, NOS (Chromic Acid)	162410-00
	Total weight of items =		11299			

Prepared by Tom Johnston,
Philip Services Corp.
11/1/99

Cell: B36
Comment: This is material found in drum in Southern Chemical Storage Bldg. marked Aeroxanthate.

Prepared by Tom Johnston,
Philip Services Corp.
11/1/99

Manifest, Line #	Waste Description	Container ID #	Weight	Container	SHIPPING NAME	profile #
Non Hazardous Waste Manifest #1						
RDEV1, 11a	Used Oil (consolidated or transferred to good drum)	D-1	500	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-2	424	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-3	466	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-4	499	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-5	470	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-6	490	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-7	460	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-8	470	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-10	410	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-11	470	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-12	460	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-13	405	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-15	490	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil from switches,air cleaners, compressor	D-16	405	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-17	460	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-18	470	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-19	490	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil [suspected non PCB transformer oil]	D-25	225	DM55	NOT REGULATED BY DOT	CL2510
	Used Oil (consolidated or transferred to good drum)	D-35	450	DM55	NOT REGULATED BY DOT	CL2510
	Total weight of 19 drums (55 gallon) used oil =		**8514**			
Non Hazardous Waste Manifest #2						
RDEV2, 11a	POTASSIUM CARBONATE	BAG-1	515	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-2	905	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE / dirt / debris	BAG-3	502	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-4	890	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-5	695	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-6	770	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-7	800	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE	BAG-8	550	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE / dirt / debris	BAG-9	910	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE / dirt / debris	BAG-14	695	1 cy bag	NOT REGULATED BY DOT	162404-00
	POTASSIUM CARBONATE / dirt / debris	BAG-11	355	1 cy bag	NOT REGULATED BY DOT	162403-00
	POTASSIUM CARBONATE / dirt / debris	BAG-17	890	1 cy bag	NOT REGULATED BY DOT	162403-00
	Total weight for 12 supersacks of Potassium Carbonate=		**8477**			
RDEV2, 11b	COPPER SULFATE	D-26	260	DF55	NOT REGULATED BY DOT	162405-00
RDEV2, 11b	COPPER SULFATE	D-28	310	DF55	NOT REGULATED BY DOT	162405-00
	Total weight for 2 blue plastic drums of Copper Sulfate =		**570**			
Non Hazardous Waste Manifest #3						
BOL#72599	LEAD ACID BATTERIES	BOX-1	1385	EP-2 box	Batteries, Wet, Filled with Acid	162406-00
	LEAD ACID BATTERIES	BOX-2	1295	EP-2 box	Batteries, Wet, Filled with Acid	162406-00
	LEAD ACID BATTERIES	BOX-3	1123	EP-2 box	Batteries, Wet, Filled with Acid	162406-00
	LEAD ACID BATTERIES	BOX-4	1415	EP-2 box	Batteries, Wet, Filled with Acid	162406-00
	LEAD ACID BATTERIES	BOX-5	1150	EP-2 box	Batteries, Wet, Filled with Acid	162406-00
	Total weight for 5 EP-2 boxes containing broken batteries =		**6368**			
	Total weight of 37 Non-Hazardous waste items going on DC-6		**23929**			

Prepared by Tom Johnston,
Philip Services Corp.
11/1/99

APPENDIX C

APPENDIX C

ANALYTICAL LABORATORY REPORTS

BLM -
Red Devil Mine
Limited Waste Removal Action
Job # 47411

SAMPLE INFORMATION					TYPE		ANALYSIS									
SAMPLE NO.	Sample Location	Date	Time	Matrix	PR	QC	pH	Conductivity (millisiemens per centimeter)	Temperature (degrees Fahrenheit)	TAL 6010/7000	TCL 8260	TCL 8270	TCL 8081/8082	Lead 7421	Mercury 7471	Mercury TCLP
99SWRDMK01	Kuskokwim River ~ 1,100' from RDC mouth	7/16/99	8:40	SW	X		7.65	0.134	13.9	X						
99SWRDMK02	Kuskokwim River ~ 550' from RDC mouth	7/16/99	8:55	SW	X		8.22	0.131	13.8	X						
99SWRDMK03	Kuskokwim River ~550' upriver from RDC mouth	7/16/99	9:55	SW	X		8.03	0.129	13.8	X						
99SDRDMK01	Kuskokwim River ~ 1,100' from RDC mouth	7/16/99	8:40	SD	X					X						
99SDRDMK02	Kuskokwim River ~ 550' from RDC mouth	7/16/99	8:55	SD	X					X						
99SDRDMK03	Kuskokwim River ~550' upriver from RDC mouth	7/16/99	9:55	SD	X					X						
99SWRDME01	Red Devil Creek mouth	7/16/99	10:30	SW	X		8.40	0.175	9.1	X	X	X	X			
99SWRDME02	Red Devil Creek below settling ponds - south	7/16/99	12:15	SW	X		8.45	0.138	10.1	X	X	X	X			
99SWRDME03	Duplicate of E02	7/16/99	12:35	SW		X				X	X	X	X			
99SWRDME04	Red Devil Creek background	7/16/99	15:15	SW	X					X						
99SDRDME01	Red Devil Creek mouth	7/16/99	10:30	SD	X					X						
99SDRDME02	Red devil Creek below settling ponds - north	7/16/99	11:45	SD	X					X						
99SDRDME03	Red Devil Creek below settling ponds - south	7/16/99	12:15	SD	X					X						
99SDRDME04	Duplicate of E03	7/16/99	12:40	SD		X				X						
99SDRDME05	Red Devil Creek background	7/16/99	15:15	SD	X					X						
99SLRDMB01	Battery storage near shop	7/17/99	8:45	SL	X									X		
99SLRDMB02	Duplicate of B01	7/17/99	8:50	SL		X								X		
99SLRDMR01	West of retort building - south	7/19/99	2:15	SL	X					X						
99SLRDMR02	West of retort building	7/19/99	2:20	SL	X					X						
99SLRDMR03	West of retort building	7/19/99	2:30	SL	X					X						
99SLRDMR04	West of retort building - north	7/19/99	3:10	SL	X					X						X
99SDRDMS01	Settling ponds - north	7/19/99	3:30	SD	X					X						
99SDRDMS02	Duplicate of S01	7/19/99	3:35	SD		X				X						
99SDRDMS03	Settling ponds - middle	7/19/99	3:40	SD	X					X						
99SDRDMS04	Settling ponds - south	7/19/99	3:45	SD	X					X						
99SLRDMT01	Tailings south of settling pond area	7/19/99	5:00	SL	X					X						
99SLRDMT02	Tailings west of RDC	7/19/99	5:10	SL	X					X						
99SLRDMD01	Drum area near power plant	7/20/99	2:35	SL	X					X	X	X	X			

BLM -
Red Devil Mine
Limited Waste Removal Action
Job # 47411

SAMPLE INFORMATION					TYPE		ANALYSIS									
SAMPLE NO.	Sample Location	Date	Time	Matrix	PR	QC	pH	Conductivity (millisiemens per centimeter)	Temperature (degrees Fahrenheit)	TAL 6010/7000	TCL 8260	TCL 8270	TCL 8081/8082	Lead 7421	Mercury 7471	Mercury TCLP
99SLRDMD02	Duplicate od D01	7/20/99	2:45	SL		X					X	X	X			
99SLRDMA01	Transformers near power plant	7/20/99	3:30	SL	X						X	X	X			
99SLRDMA02	Transformers on storage pad	7/20/99	4:00	SL	X						X	X	X			
99SLRDMD03	Drum storage near retort building	7/21/99	10:30	SL	X					X	X	X	X			
99SLRDMD04	drum storage near shop[	7/21/99	1:45	SL	X					X	X	X	X			
99SLRDMC01	Chemical shed -south	7/22/99	4:10	SL	X					X	X	X	X			
99SLRDMC02	Chemical shed -north	7/22/99	4:20	SL	X					X	X	X	X			
99SLRDMR05	Retort building - east side, near chimney	7/22/99	4:35	SL	X										X	X
99SLRDMR06	Retort building - middle, east side	7/22/99	4:45	SL	X										X	
99SLRDMR07	Retort building - north end, east side	7/22/99	5:00	SL	X										X	
99SLRDMR08	Duplicate of R07	7/22/99	5:05	SL		X									X	
99SLRDMG01	Background soil	7/23/99	2:30	SL	X					X						
99SLRDMD05	PCB drum on storage pad	7/23/99	2:50	SL	X					X	X	X	X			
99SLRDMB03	Battery area on storage pad	7/23/99	3:15	SL	X									X		

PR	Project sample
QC	Quality control sample
SD	Sediment
SL	Soil
SW	Surface water

Srlog.xls

RECEIVED

SEP 17 1999

HARDING LAWSON
ASSOCIATES

CTE Environmental Services
Alaska Division
Laboratory Data Report

Project: BLMRed Devil 47411

Client: Harding Lawson & Assoc

CTE Work Order: 994642

Contents:

Chain of Custody
Quality Control Summary Forms

Note:

Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the proper regulatory authority and/or CTE's Quality Assurance Program Plan.

Case Narrative

Customer:

Project:

Due 9/10

FACSIMILE TRANSMISSION

To: JOYCE WINDEBANK

Fax Number: 9 561.5301

994642

From: BRYAN LUND

Date: 8/30/99

Subject: BLM RED DEVIL

Project Number: 47411

Number of pages (including this cover sheet): 1

Remarks:

JOYCE –

WE WANT TO RUN TCLP Hg ON FOLLOWING SOIL SAMPLES:

994642-1 (1) 99SLRDMR05 refer 993745-19

994642-2 (2) 99SLRDMR04 refer 993745-4

By

cc:

Transmitted by: BDL

This facsimile message contains confidential information intended only for the use of the person to whom it is addressed. Anyone reading this message other than the intended recipient or the employee responsible for delivering this facsimile to the intended recipient is strictly prohibited under applicable law from distributing or copying this information. Please notify us immediately by telephoning us collect at (907) 563-8102 if you have received this facsimile due to a transmission error. Thank you.

Harding Lawson Associates
Engineering and Environmental Services
601 East 57th Place
Anchorage, Alaska 99518 - (907) 563-8102

FAX (907) 561-4574

CT&E Environmental Services Inc.

SAMPLE RECEIPT FORM

CT&E WO#: 994642

Yes	No	
		Are samples **RUSH**, priority, or *within 72 hrs* of **hold time**?
		If yes, have you done *e-mail notification*?
		Are samples *within 24 hrs* of **hold time** or **due date**?
		If yes, have you *spoken with* Supervisor?
		Are there any **problems** (e.g., ids, analyses)?
		Were samples preserved correctly and pH verified?
		Has Project Manager been notified of problems?
		Is this an ACOE/AFCEE/ADEC project?
		Will a **data package** be required?
		If this is for PWS, provide **PWSID**.
		Is there a **quote** for this project?
		Will **courier** charges apply?

Completed by (sign): _____ (print): _____

*** The following *must* be completed for *all* ACOE & AFCEE projects: ***

Yes	No		Notes:
		Is cooler temperature 4 ± C?	
		thermometer used:	
		Was there an airbill, etc? note #:	
		Was cooler sealed with custody seals?	
		#/where?	
		Were seals intact upon arrival?	
		Was there a COC with cooler?	
		Was the COC filled out properly?	
		Did the COC indicate ACOE/AFCEE project?	
		Did the COC and samples correspond?	
		Were samples screened with Geiger counter?	
		Were all samples packed to prevent breakage?	
		packing material:	
		Were all samples unbroken and clearly labelled?	
		Were all samples sealed in separate plastic bags?	
		Were all bottles for volatiles free of headspace?	
		Were correct container/sample sizes submitted?	
		Was client notified of problems? (specify below)	

Individual contacted: _____

Date & Time: _____ Phone/Fax #: _____

Due Date: 9-10-99

Received Date/Time: 7/27 → 8/30

Cooler Temperature: _____

Sample Condition: Good / Poor

Matrix of each Sample:

2	" "	Soil
	" "	
	" "	
	" "	
	Trip Blank	
	MS/MSD	

Additional Sample Remarks:

- ____ AK101s/____ 8260s field pres'd?
- ____ Field-filtered for dissolved____?
- ____ Lab-filter for dissolved____?
- ____ Ref Lab required? _____

Notes: _____

# of each Container Received:

	950 ml amber	unpres'd
	950 ml amber	w/ HCl
	500 ml amber	w/ H2SO4
	1L cubies	unpres'd
	1L cubies	w/ HNO3
	1L cubies	w/ H2SO4
	1L cubies	w/ NaOH + ZnAc
	120 ml coli	bottles
	60 ml	Nalg
	8 oz amber	unpres'd
	4 oz amber	unpres'd
	4 oz w/ septa	w/ MeOH
	40 ml vials	w/ HCl
	Other (specify)	
	Other (specify)	

#/Log In Proofed by: _____

Form Number: F004r2

CT&E Environmental Services Inc.
Laboratory Division

Laboratory Analysis Report

September 10, 1999

Bryan Lund
Harding Lawson & Assoc
601 East 57th Place
Anchorage, AK 99518

Client Name	Harding Lawson & Assoc
Project ID	BLMRed Devil 47411 [994642]
Printed	September 10, 1999

Enclosed are the analytical results associated with the above project.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by CT&E. A copy of our Quality Control Manual that outlines this program is available at your request.

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth in our Quality Assurance Program Plan.

If you have any questions regarding this report or if we can be of any other assistance, please call your CT&E Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value that falls below PQL, but is greater than the MDL.
B - Indicates the analyte is found in the blank associated with the sample.
* - The analyte has exceeded allowable limits.
GT - Greater Than
D - Secondary Dilution
LT - Less Than
! - Surrogate out of range

150

200 W. Potter Drive, **Anchorage, AK 99518-1605** — Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road, **Fairbanks, AK 99709-5471** — Tel: (907) 474-8656 Fax: (907) 474-9685

INVOICE (Duplicate)

CT&E Environmental Services Inc.

Laboratory Division

FEDERAL I.D.: 22-3334380

200 W. Potter Drive
Anchorage, AK 99518-1605
Tel: (907) 562-2343
Fax: (907) 561-5301

INVOICE NO. 52247807 Workorder Date: 09/01/99
DATE 09/14/99 CT&E Ref.# 994642
Account # HARLAWP

Client PO: Work Auth # 002
Project Name: BLMRed Devil 47411

PLEASE REMIT TO: P.O. Box 10001-1019, Pasadena, CA 91110-1019

DIRECT PAYMENT INQUIRIES TO: 1919 S. Highland Ave., Suite 210-B, Lombard, IL 60148-4991 Tel. (630) 953-9300 Fax (630) 953-9306

TERMS: Net 30 Days. A Service Charge of One and a Half Percent (1½%) Per Month Will Be Charged on Overdue Accounts.

Bill To
Harding Lawson & Assoc
601 E 57th Place
Anchorage, AK 99518

Contact Accounts Payable
Phone (907)563-8102
Ordered By

Special Instructions

Client Sample ID/CT&E Sample ID	Parameter	Charge
99SLRDMR05[994642001]	TCLP HG SW846-7470	75.00
99SLRDMR04[994642002]	TCLP HG SW846-7470	75.00
	TOTAL DUE	$150.00

CONTROL NO.
R- 43353

INVOICE (Duplicate)

CT&E Environmental Services Inc.

Laboratory Division

200 W. Potter Drive
Anchorage, AK 99518-1605
Tel: (907) 562-2343
Fax: (907) 561-5301

FEDERAL I.D.: 22-3334380

INVOICE NO. 52247807
DATE 09/14/99

Workorder Date: 09/01/99
CT&E Ref.# 994642
Account # HARLAWP

Client PO: Work Auth # 002
Project Name: BLMRed Devil 47411

PLEASE REMIT TO: P.O. Box 10001-1019, Pasadena, CA 91110-1019

DIRECT PAYMENT INQUIRIES TO: 1919 S. Highland Ave., Suite 210-B, Lombard, IL 60148-4991 Tel. (630) 953-9300 Fax (630) 953-9306

TERMS: Net 30 Days. A Service Charge of One and a Half Percent (1½%) Per Month Will Be Charged on Overdue Accounts.

Bill To
Harding Lawson & Assoc
601 E 57th Place
Anchorage, AK 99518

Contact Accounts Payable
Phone (907)563-8102
Ordered By

Special Instructions

Client Sample ID/CT&E Sample ID	Parameter	Charge
99SLRDMR05[994642001]	TCLP HG SW846-7470	75.00
99SLRDMR04[994642002]	TCLP HG SW846-7470	75.00
	TOTAL DUE	$150.00

CONTROL NO.
R- 43353

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	BLMRed Devil 47411		
QC Batch	MXX 6275 (65874)		
Original		**Prep Date**	09/08/99 10:30
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW7470/E245.1

QC results affect the following production samples:

994642001 994642002

QC results for Method Blank [261592]

Run Instrument: HgAA Leeman AutoAnalyzer PS200

Parameter	Analyzed	Result	PQL	Units
Mercury by Cold Vapor	09/08/99	0.000200 U	0.000200	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	BLMRed Devil 47411		
QC Batch	MXX 6275 (65874)		
Original		**Prep Date**	09/08/99 10:30
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW7470/E245.1

QC results affect the following production samples:

994642001 994642002

QC results for Lab Check Standard [261593]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Mercury by Cold Vapor	LCS	0.00183	91.5	85-115			.002mg/L	09/08/99	F3

F-701

RECEIVED

AUG 19 1999

HARDING LAWSON
ASSOCIATES

CTE Environmental Services
Alaska Division
Laboratory Data Report

Project: Red Devil Mine 47411

Client: Harding Lawson & Assoc

CTE Work Order: 993500

Contents:

Chain of Custody
Quality Control Summary Forms

Note:

Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the proper regulatory authority and/or CTE's Quality Assurance Program Plan.

Case Narrative

Customer: HARLAWP **Harding Lawson & Assoc**

Project: 993500 **Red Devil Mine 47411**

993500011 PS

8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.

8270 - CCV recovery for bis(2-chloroisopropyl)ether is biased low. The result for this compound is estimated.

8270 - LCS/LCSD RPD for 2-methylphenol(o-cresol), bis(2-chloroisopropyl)ether, 3&4-methylphenol, 2-chlorophenol, hexachloroethane, nitrobenzene, 2-nitrophenol,benzoic acid is biased high. Positive hits for these compounds are estimated.

8270 - LCS/LCSD RPD for n-nitrosodimethlamine, pyridine, aniline, phenol, bis(2-chloroethyl)ether, 1,3,-dichlorobenzene, 1,4-dichlorobenzene, benzyl alcohol, 1,2-dichlorobenzene is biased high. Positive hits for these compounds are estimated.

8270 - LCS/LCSD RPD for bis(2-chloroethoxyl)methane, 1,2,4-trichlorobenzene, naphthalene, hexachlorobutadiene, 2,4-dichlorophenol, 2-methylnaphthalene, and hexachlorocyclopentadien is biased high. Positive hits for these compounds are estimated.

993500012 PS

8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.

8270 - CCV recovery for bis(2-chloroisopropyl)ether is biased low. The result for this compound is estimated.

8270 - LCS/LCSD RPD for bis(2-chloroethoxyl)methane, 1,2,4-trichlorobenzene, naphthalene, hexachlorobutadiene, 2,4-dichlorophenol, 2-methylnaphthalene, and hexachlorocyclopentadien is biased high. Positive hits for these compounds are estimated.

8270 - LCS/LCSD RPD for n-nitrosodimethlamine, pyridine, aniline, phenol, bis(2-chloroethyl)ether, 1,3,-dichlorobenzene, 1,4-dichlorobenzene, benzyl alcohol, 1,2-dichlorobenzene is biased high. Positive hits for these compounds are estimated.

8270 - LCS/LCSD RPD for 2-methylphenol(o-cresol), bis(2-chloroisopropyl)ether, 3&4-methylphenol, 2-chlorophenol, hexachloroethane, nitrobenzene, 2-nitrophenol,benzoic acid is biased high. Positive hits for these compounds are estimated.

993500013 PS

8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.

8270 - CCV recovery for bis(2-chloroisopropyl)ether is biased low. The result for this compound is estimated.

8270 - LCS/LCSD RPD for 2-methylphenol(o-cresol), bis(2-chloroisopropyl)ether, 3&4-methylphenol, 2-chlorophenol, hexachloroethane, nitrobenzene, 2-nitrophenol,benzoic acid is biased high. Positive hits for these compounds are estimated.

8270 - LCS/LCSD RPD for n-nitrosodimethlamine, pyridine, aniline, phenol, bis(2-chloroethyl)ether, 1,3,-dichlorobenzene, 1,4-dichlorobenzene, benzyl alcohol, 1,2-dichlorobenzene is biased high. Positive hits for these compounds are estimated.

8270 - LCS/LCSD RPD for bis(2-chloroethoxyl)methane, 1,2,4-trichlorobenzene, naphthalene, hexachlorobutadiene, 2,4-dichlorophenol, 2-methylnaphthalene, and hexachlorocyclopentadien is biased high. Positive hits for these compounds are estimated.

993500019 BMS

8081- MS and RPD for endosulfan sulfate fail high bias, possibly due to matrix interference. MSD, LCS and LCSD are within the Q.C. limit. The results are not affected.

8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.

8081- Surrogate recoveries are biased low. MS %R is within the limit except endosulfan sulfate high bias. The results are not affected significantly.

8260 - 2-Chloroethylvinyl ether recovery 0%, due to matrix. See LCS/LCSD for control.

993500020 BMSD

7060 - BMSD recovery for arsenic is biased high (117%); results are not affected.

8081- MS and RPD for endosulfan sulfate fail high bias, possibly due to matrix interference. MSD, LCS and LCSD are within the Q.C. limit. The results are not affected.

8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.

8081- Surrogate recovery is biased low. MS %R is within the limit except endosulfan sulfate high bias. The results are not affected significantly.

8260 - 2-Chloroethylvinyl ether recovery 0%, due to matrix. See LCS/LCSD for control.

Case Narrative

Customer: HARLAWP **Harding Lawson & Assoc**

Project: 993500 **Red Devil Mine 47411**

246693 LCS

8270 - LCS recovery for hexachlorocyclopentadien is biased high. The LCSD met recovery and RPD goals. The result for this compound is not affected.

8270 - LCS recovery for aniline is biased high; RPD biased high. Results are estimated.

8270 - LCS/LCSD RPD for n-nitrosodimethlamine, pyridine, aniline, phenol, bis(2-chloroethyl)ether, 1,3,-dichlorobenzene, 1,4-dichlorobenzene, benzyl alcohol, 1,2-dichlorobenzene is biased high. Positive hits for these compunds are estimated.

8270 - LCS/LCSD RPD for 2-methylphenol(o-cresol), bis(2-chloroisopropyl)ether, 3&4-methylphenol, 2-chlorophenol, hexachloroethane, nitrobenzene, 2-nitrophenol,benzoic acid is biased high. Positive hits for these compunds are estimated.

8270 - LCS/LCSD RPD for bis(2-chloroethoxyl)methane, 1,2,4-trichlorobenzene, naphthalene, hexachlorobutadiene, 2,4-dichlorophenol, 2-methylnaphthalene, and hexachlorocyclopentadien is biased high. Positive hits for these compunds are estimated.

246676 LCSD

8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.

246694 LCSD

8270 - LCS/LCSD RPD for bis(2-chloroethoxyl)methane, 1,2,4-trichlorobenzene, naphthalene, hexachlorobutadiene, 2,4-dichlorophenol, 2-methylnaphthalene, and hexachlorocyclopentadien is biased high. Positive hits for these compunds are estimated.

8270 - LCS/LCSD RPD for n-nitrosodimethlamine, pyridine, aniline, phenol, bis(2-chloroethyl)ether, 1,3,-dichlorobenzene, 1,4-dichlorobenzene, benzyl alcohol, 1,2-dichlorobenzene is biased high. Positive hits for these compunds are estimated.

8270 - LCS/LCSD RPD for 2-methylphenol(o-cresol), bis(2-chloroisopropyl)ether, 3&4-methylphenol, 2-chlorophenol, hexachloroethane, nitrobenzene, 2-nitrophenol,benzoic acid is biased high. Positive hits for these compunds are estimated.

247585 MS

7000 series - Beryllium is biased high. Bench spike met recovery criteria. Data is not affected.

7000 series - Antimony, selenium, and silver are biased low. Bench spike met recovery limits. Data is not affected.

247586 MSD

7000 series - Beryllium and lead are biased high. Bench spike met recovery criteria. Data is not affected.

7000 series - Antimony and selenium are biased low. Bench spike met recovery limits. Data is not affected.

248381 MS

6010 - MS recovery of aluminum biased high. Bench spike met recovery criteria. Results not affected.

248382 MSD

6010 - MSD recovery of aluminum biased high. Bench spike met recovery criteria. Results not affected.

248792 LCSD

8260 - LCSD dichlorodifluoromethane shows high RPD. Results should not be affected. Samples are non-detect for this compound.

249561 CCV

8270 - CCV recovery for bis(2-chloroisopropyl)ether is biased low. The result for this compound is estimated.

Harding Lawson Associates
601 East 57th Place
Anchorage, Ak 99518
907/563 8102
907/561 4574 Fax

CHAIN OF CUSTODY FORM

993500

Y2

Samplers: Lori Johnson

Project Number: 47411

Name/Location: Red Devil Mine

Project Manager: Bryan Lund

Recorder: Lori [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	TPH 8015 (010)	REQUESTED	
12	X						X				99	07	16	0840	99SWRDMK01						X			14
12	X						X				99	07	16	0855	99SWRDMK02						X			15
12	X						X				99	07	16	0955	99SWRDMK03						X			16
40		X			X						99	07	16	0840	99SDRDMK01						X			1
40		X			X						99	07	16	0855	99SDRDMK02						X			2
40		X			X						99	07	16	0955	99SDRDMK03						X			3
49			X		X						99	07	17	0845	99SLRDMB01							X		9
49			X		X						99	07	17	0850	99SLRDMB02							X		10
40		X			X						99	07	16	1030	99SDRDME01						X			4
40		X			X						99	07	16	1145	99SDRDME02						X			5

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						Temp blank included

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Lori [signature] 7/19/97 9:15		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Carita Phillips 7/20 1000	DATE/TIME

METHOD OF SHIPMENT: Hand delivered

cooler 4.7

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Harding Lawson Associates
601 East 57th Place
Anchorage, AK 99518
907 / 563-8102
907 / 561-4574 FAX

CHAIN OF CUSTODY FO 993500

T&E 2/2

Samplers: Loren [illegible]

Project Number: 47411

Name/Location: Red Devil Mine

Project Manager: Bryan Lund

Recorder: [illegible] (Signature Required)

	SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Ice	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	TPH Metals (Cd/Pb/Zn)	TCL - 8260 VOCs	TCL - 8270 SVOCs	TCL-8081/8082 PCB/Pest							
1	40		X			X							99	07	16	1215	99SDRDME03							X									6
2	40		X			X							99	07	16	1240	99SDRDME04							X									7
3	40		X			X							99	07	16	1515	99SDRDME05							X									8
4	12	X						X					99	07	16	1515	99SWRDME04							X									17
5	12	X							X				99	07	16	1030	99SWRDME01								X							MS/MSD	11
6	12	X							X				99	07	16	1215	99SWRDME02								X								12
7	12	X				4			X				99	07	16	1235	99SWRDME03								X	X	X						13
8	12	X															Trip Blank (TB1)								X								18

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[illegible] 7/9/99 9:15		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
	Anita Phillips	7/12 1000

METHOD OF SHIPMENT

Cooler 4.3

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Harding Lawson Associates
601 East 57th Place
Anchorage, AK 99518
907 / 563-8102
907 / 561-4574 FAX

CHAIN OF CUSTODY FORM

993500

Samplers: Lorei Johnson

Project Number: 47411

Name/Location: Red Devil Mine

Project Manager: Bryan Lund

Recorder: (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	TPH, Metals, Lead, Arsenic	TCL-8270 SVOCs	TCL-8081/8082 PCB/Pest								
12	X				X	1					99	07	16	1030	99SWRDME01							X	X	X								11
12	X				X	1					99	07	16	1215	99SWRDME02							X	X	X								12
12	X				X	1					99	07	16	1235	99SWRDME03							X	X	X								13

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						Temp blank included

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
7/19/99 8:30		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Sarita Phillips 7/20	DATE/TIME 1000

METHOD OF SHIPMENT Hand delivered Cooler 4.7

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

CT&E Environmental Services Inc.

SAMPLE RECEIPT FORM

CT&E WO#: 99.3500

Yes	No	
	X	Are samples **RUSH**, priority, or *within 72 hrs* of **hold time**?
		If yes, have you done *e-mail notification*?
		Are samples *within 24 hrs* of **hold time** or **due date**?
X		If yes, have you *spoken with* Supervisor?
X		Are there any **problems** (e.g., ids, analyses)?
X		Were samples preserved correctly and pH verified?

Coc really difficult to follow

X		Has Project Manager been notified of problems?
X		Is this an ACOE/AFCEE/ADEC project?
X		Will a **data package** be required?
		If this is for PWS, provide **PWSID**.
X		Is there a **quote** for this project? 4412
		Will **courier** charges apply?

Completed by (sign): _____ (print): _____

*** The following *must* be completed for *all* ACOE & AFCEE projects: ***

Yes	No		Notes:
		Is cooler temperature 4 ± C?	
		thermometer used:	
		Was there an airbill, etc? note #:	
		Was cooler sealed with custody seals?	
		#/where?	
		Were seals intact upon arrival?	
		Was there a COC with cooler?	
		Was the COC filled out properly?	
		Did the COC indicate ACOE/AFCEE project?	
		Did the COC and samples correspond?	
		Were samples screened with Geiger counter?	
		Were all samples packed to prevent breakage?	
		packing material:	
		Were all samples unbroken and clearly labelled?	
		Were all samples sealed in separate plastic bags?	
		Were all bottles for volatiles free of headspace?	
		Were correct container/sample sizes submitted?	
		Was client notified of problems? (specify below)	

Individual contacted: _____

Date & Time: _____ Phone/Fax #: _____

Due Date: 7/29

Received Date/Time: 7/20 ~~8AM~~

Cooler Temperature: 4.7 / 4.3

Sample Condition: Good / Poor

Matrix of each Sample:

12	" "	1-18
	" "	
	" "	
	" "	
X	Trip Blank	-18
✓	MS/MSD	19,20 or 11

Additional Sample Remarks:

	AK101s/_____ 8260s field pres'd?
	Field-filtered for dissolved_____?
	Lab-filter for dissolved_____?
	Ref Lab required?

Notes:

Quote 4412

# of each Container Received:

16	950 ml amber	unpres'd
	950 ml amber	w/ HCl
	500 ml amber	w/ H2SO4
	1L cubies	unpres'd
7	1L cubies	w/ HNO3
	1L cubies	w/ H2SO4
	1L cubies	w/ NaOH + ZnAc
	120 ml coli	bottles
	60 ml	Nalg
10	8 oz amber	unpres'd
	4 oz amber	unpres'd
	4 oz w/ septa	w/ MeOH
	40 ml vials	w/ HCl
	Other (specify)	
	Other (specify)	

#/Log In Proofed by: _____

Form Number: F004r2
Printed: 7/12/99

CT&E Environmental Services Inc.
Laboratory Division

Laboratory Analysis Report

August 11, 1999

Lorri Johnson
Harding Lawson & Assoc
601 East 57th Place
Anchorage, AK 99518

Client Name	Harding Lawson & Assoc
Project ID	Red Devil Mine 47411 [993500]
Printed	August 11, 1999

Enclosed are the analytical results associated with the above project.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by CT&E. A copy of our Quality Control Manual that outlines this program is available at your request.

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth in our Quality Assurance Program Plan.

If you have any questions regarding this report or if we can be of any other assistance, please call your CT&E Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value that falls below PQL, but is greater than the MDL.
B - Indicates the analyte is found in the blank associated with the sample.
* - The analyte has exceeded allowable limits.
GT - Greater Than
D - Secondary Dilution
LT - Less Than
! - Surrogate out of range

200 W. Potter Drive, **Anchorage, AK 99518-1605** — Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road, **Fairbanks, AK 99709-5471** — Tel: (907) 474-8656 Fax: (907) 474-9685

INVOICE (Duplicate)

CT&E Environmental Services Inc.
Laboratory Division

FEDERAL I.D.: 22-3334380

200 W. Potter Drive
Anchorage, AK 99518-1605
Tel: (907) 562-2343
Fax: (907) 561-5301

INVOICE NO. 52247167 Workorder Date: 07/20/99
ient PO: DATE 08/17/99 CT&E Ref.# 993500
oject Name: Red Devil Mine 47411 Account # HARLAWP

PLEASE REMIT TO: P.O. Box 10001-1019, Pasadena, CA 91110-1019

DIRECT PAYMENT INQUIRIES TO: 1919 S. Highland Ave., Suite 210-B, Lombard, IL 60148-4991 Tel. (630) 953-9300 Fax (630) 953-9306

TERMS: Net 30 Days. A Service Charge of One and a Half Percent (1½%) Per Month Will Be Charged on Overdue Accounts.

ll To Harding Lawson & Assoc
601 E 57th Place
Anchorage, AK 99518

ntact Accounts Payable
one (907)563-8102
dered By

ecial Instructions

ient Sample ID/CT&E Sample ID	Parameter	Charge
SDRDMK01[993500001]	Target Analyte List	319.73
SDRDMK02[993500002]	Target Analyte List	319.73
SDRDMK03[993500003]	Target Analyte List	319.73
SDRDME01[993500004]	Target Analyte List	319.73
SDRDME02[993500005]	Target Analyte List	319.73
SDRDME03[993500006]	Target Analyte List	319.73
SDRDME04[993500007]	Target Analyte List	319.73
SDRDME05[993500008]	Target Analyte List	319.73
SLRDMB01[993500009]	Lead, SW7421 GF (S)	38.59
SLRDMB02[993500010]	Lead, SW7421 GF (S)	38.59
SWRDME01[993500011]	Target Analyte List	319.73
SWRDME01[993500011]	Semi-Volatiles by GC/MS (W)	385.88
SWRDME01[993500011]	Pesticides/PCB's by GC ECD (W)	165.38
SWRDME01[993500011]	VOC, 8260 (W) FULL	220.50
SWRDME02[993500012]	Target Analyte List	319.73
SWRDME02[993500012]	VOC, 8260 (W) FULL	220.50
SWRDME02[993500012]	Semi-Volatiles by GC/MS (W)	385.88
SWRDME02[993500012]	Pesticides/PCB's by GC ECD (W)	165.38
SWRDME03[993500013]	Target Analyte List	319.73

CONTROL NO.
R- 42557

INVOICE (Duplicate)

CT&E Environmental Services Inc.
Laboratory Division
FEDERAL I.D.: 22-3334380
200 W. Potter Drive
Anchorage, AK 99518-1605
Tel: (907) 562-2343
Fax: (907) 561-5301

INVOICE NO. 52247167 Workorder Date: 07/20/99
ient PO: DATE 08/17/99 CT&E Ref.# 993500
oject Name: Red Devil Mine 47411 Account # HARLAWP

PLEASE REMIT TO: P.O. Box 10001 1019, Pasadena, CA 91110 1019

DIRECT PAYMENT INQUIRIES TO: 1919 S. Highland Ave., Suite 210-B, Lombard, IL 60148-4991 Tel. (630) 953-9300 Fax (630) 953-9306
TERMS: Net 30 Days. A Service Charge of One and a Half Percent (1½%) Per Month Will Be Charged on Overdue Accounts.

ient Sample ID/CT&E Sample ID	Parameter	Charge
SWRDME03[993500013]	Semi-Volatiles by GC/MS (W)	385.88
SWRDME03[993500013]	Pesticides/PCB's by GC ECD (W)	165.38
SWRDME03[993500013]	VOC, 8260 (W) FULL	220.50
SWRDMK01[993500014]	Target Analyte List	319.73
SWRDMK02[993500015]	Target Analyte List	319.73
SWRDMK03[993500016]	Target Analyte List	319.73
SWRDME04[993500017]	Target Analyte List	319.73
SWRDME01 MS[993500019]	Target Analyte List	319.73
SWRDME01 MS[993500019]	Semi-Volatiles by GC/MS (W)	385.88
SWRDME01 MS[993500019]	Pesticides/PCB's by GC ECD (W)	165.38
SWRDME01 MS[993500019]	VOC, 8260 (W) FULL	220.50
SWRDME01 MSD[993500020]	Target Analyte List	319.73
SWRDME01 MSD[993500020]	VOC, 8260 (W) FULL	220.50
SWRDME01 MSD[993500020]	Semi-Volatiles by GC/MS (W)	385.88
SWRDME01 MSD[993500020]	Pesticides/PCB's by GC ECD (W)	165.38
-1]	Level 1 ADEC Deliverables	937.13
	TOTAL DUE	$10,308.52

CONTROL NO.
R- 42558

CT&E Environmental Services Inc.

CT&E Ref.#	993500001	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 08:40
Client Sample ID	99SDRDMK01	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	

Sample Remarks:
Corrected report for Arsenic.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	6790	46.4	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Antimony	7.78	2.15	mg/Kg	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	104	20.9	mg/Kg	SW846 7060		07/30/99	08/06/99	JMO
Barium	335	4.64	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Beryllium	0.215	0.0429	mg/Kg	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.191	0.0215	mg/Kg	SW846-7131		07/23/99	07/26/99	KGF
Calcium	2070	464	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Chromium	15.3	2.15	mg/Kg	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	8.55	4.64	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Copper	22.3	4.64	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Iron	31800	232	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Lead	4.25	2.15	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	3580	46.4	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Manganese	1190	9.28	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Mercury by Cold Vapor	55.5	1.59	mg/Kg	SW846-7471		07/27/99	07/27/99	RMV
Nickel	27.0	9.28	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Potassium	874	209	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Selenium	0.215 U	0.215	mg/Kg	SW846-7740		07/23/99	07/29/99	JMO
Silver	0.0429 U	0.0429	mg/Kg	SW846-7761		07/23/99	07/26/99	KGF
Sodium	89.1	46.4	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Thallium	0.215 U	0.215	mg/Kg	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	28.8	4.64	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Zinc	58.0	0.928	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500001	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 08:40
Client Sample ID	99SDRDMK01	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	88.0		%	SM18 2540G			07/23/99	MPA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500002	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 08:55
Client Sample ID	99SDRDMK02	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	Mike Zolley

Sample Remarks:
Corrected result for Arsenic

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	10500	60.5	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Antimony	3.04 U	3.04	mg/Kg	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	12.4	3.02	mg/Kg	SW846 7060		07/30/99	08/06/99	JMO
Barium	116	6.05	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Beryllium	0.399	0.0304	mg/Kg	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.233	0.0304	mg/Kg	SW846-7131		07/23/99	07/26/99	KGF
Calcium	3330	605	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Chromium	24.2	3.04	mg/Kg	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	7.87	6.05	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Copper	13.5	6.05	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Iron	22600	30.2	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Lead	4.68	3.04	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	4540	60.5	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Manganese	406	12.1	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Mercury by Cold Vapor	0.185	0.0234	mg/Kg	SW846-7471		07/27/99	07/27/99	RMV
Nickel	23.7	12.1	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Potassium	747	272	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Selenium	0.304 U	0.304	mg/Kg	SW846-7740		07/23/99	07/29/99	JMO
Silver	0.0608 U	0.0608	mg/Kg	SW846-7761		07/23/99	07/26/99	KGF
Sodium	113	60.5	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Thallium	0.304 U	0.304	mg/Kg	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	30.3	6.05	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Zinc	62.8	1.21	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500002	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 08:55
Client Sample ID	99SDRDMK02	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	66.7		%	SM18 2540G			07/23/99	MPA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500003	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 09:55
Client Sample ID	99SDRDMK03	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	Nick Tolley

Sample Remarks:
Corrected result for Arsenic

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	11300	59.5	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Antimony	0.303 U	0.303	mg/Kg	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	7.10	2.91	mg/Kg	SW846 7060		07/30/99	08/06/99	JMO
Barium	164	5.95	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Beryllium	0.505	0.0303	mg/Kg	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.399	0.0303	mg/Kg	SW846-7131		07/23/99	07/26/99	KGF
Calcium	3210	595	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Chromium	23.5	3.03	mg/Kg	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	13.1	5.95	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Copper	28.7	5.95	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Iron	23400	29.7	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Lead	8.37	3.03	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	4820	59.5	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Manganese	351	11.9	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Mercury by Cold Vapor	0.138	0.0246	mg/Kg	SW846-7471		07/27/99	07/27/99	RMV
Nickel	30.3	11.9	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Potassium	946	268	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Selenium	0.303 U	0.303	mg/Kg	SW846-7740		07/23/99	07/29/99	JMO
Silver	0.0740	0.0607	mg/Kg	SW846-7761		07/23/99	07/26/99	KGF
Sodium	131	59.5	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Thallium	0.303 U	0.303	mg/Kg	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	43.0	5.95	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Zinc	82.7	1.19	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500003	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 09:55
Client Sample ID	99SDRDMK03	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	67.7		%	SM18 2540G			07/23/99	MPA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SDRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	Mike Wiley

Sample Remarks:
Corrected result for Arsenic.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	5680	44.3	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Antimony	238	234	mg/Kg	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	975	235	mg/Kg	SW846 7060		07/30/99	08/06/99	JMO
Barium	275	4.43	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Beryllium	0.712	0.0935	mg/Kg	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.370	0.0234	mg/Kg	SW846-7131		07/23/99	07/26/99	KGF
Calcium	3150	443	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Chromium	18.8	2.34	mg/Kg	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	16.5	4.43	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Copper	40.4	4.43	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Iron	35500	221	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Lead	6.68	2.34	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	3550	44.3	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Manganese	1120	8.86	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Mercury by Cold Vapor	166	7.52	mg/Kg	SW846-7471		07/27/99	07/27/99	RMV
Nickel	50.2	8.86	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Potassium	1670	199	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Selenium	0.243	0.234	mg/Kg	SW846-7740		07/23/99	07/29/99	JMO
Silver	0.0963	0.0467	mg/Kg	SW846-7761		07/23/99	07/26/99	KGF
Sodium	127	44.3	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Thallium	0.636	0.234	mg/Kg	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	21.5	4.43	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Zinc	83.5	8.86	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SDRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	84.4		%	SM18 2540G			07/23/99	MPA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500005	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 11:45
Client Sample ID	99SDRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	Mike Kelly

Sample Remarks:
Corrected result for Arsenic.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	8420	46.2	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Antimony	618	250	mg/Kg	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	1590	226	mg/Kg	SW846 7060		07/30/99	08/06/99	JMO
Barium	405	4.62	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Beryllium	0.922	0.100	mg/Kg	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.344	0.0250	mg/Kg	SW846-7131		07/23/99	07/26/99	KGF
Calcium	6340	462	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Chromium	24.9	2.50	mg/Kg	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	14.2	4.62	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Copper	49.6	4.62	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Iron	32700	231	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Lead	9.07	2.50	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	6260	46.2	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Manganese	711	9.24	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Mercury by Cold Vapor	48.4	1.82	mg/Kg	SW846-7471		07/27/99	07/27/99	RMV
Nickel	53.3	9.24	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Potassium	2100	208	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Selenium	0.250 U	0.250	mg/Kg	SW846-7740		07/23/99	07/29/99	JMO
Silver	0.0831	0.0501	mg/Kg	SW846-7761		07/23/99	07/26/99	KGF
Sodium	214	46.2	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Thallium	0.296	0.250	mg/Kg	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	24.0	4.62	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Zinc	122	9.24	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500005	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 11:45
Client Sample ID	99SDRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director:**	**Stephen C. Ede**
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	81.1		%	SM18 2540G			07/23/99	MPA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500006	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SDRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	

Sample Remarks:
Corrected result for Arsenic.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	6650	51.3	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Antimony	963	249	mg/Kg	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	2030	250	mg/Kg	SW846 7060		07/30/99	08/06/99	JMO
Barium	482	5.13	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Beryllium	0.963	0.0995	mg/Kg	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.474	0.0249	mg/Kg	SW846-7131		07/23/99	07/26/99	KGF
Calcium	3360	513	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Chromium	18.8	2.49	mg/Kg	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	10.5	5.13	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Copper	40.9	5.13	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Iron	28400	256	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Lead	12.7	2.49	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	4480	51.3	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Manganese	584	10.3	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Mercury by Cold Vapor	292	9.94	mg/Kg	SW846-7471		07/27/99	07/27/99	RMV
Nickel	41.3	10.3	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Potassium	2030	231	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Selenium	0.249 U	0.249	mg/Kg	SW846-7740		07/23/99	07/29/99	JMO
Silver	0.0960	0.0498	mg/Kg	SW846-7761		07/23/99	07/26/99	KGF
Sodium	181	51.3	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Thallium	0.304	0.249	mg/Kg	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	20.1	5.13	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Zinc	80.2	10.3	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500006	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:34
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SDRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	77.1		%	SM18 2540G			07/23/99	MPA

F-701

CT&E Environmental Services Inc.

Laboratory Division

Laboratory Analysis Report

CT&E Ref.#	993500007	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:42
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:40
Client Sample ID	99SDRDME04	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director:**	Stephen C. Ede
Ordered By			
PWSID		**Released By**	Nicki Ulley

Sample Remarks:
Corrected result for Arsenic

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	8490	42.8	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Antimony	809	245	mg/Kg	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	1940	216	mg/Kg	SW846 7060		07/30/99	08/06/99	JMO
Barium	487	4.28	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Beryllium	1.01	0.0981	mg/Kg	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.373	0.0245	mg/Kg	SW846-7131		07/23/99	07/26/99	KGF
Calcium	6790	428	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Chromium	24.3	2.45	mg/Kg	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	11.4	4.28	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Copper	47.3	4.28	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Iron	31800	214	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Lead	11.3	2.45	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	7820	42.8	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Manganese	769	8.55	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Mercury by Cold Vapor	399	10.3	mg/Kg	SW846-7471		07/27/99	07/27/99	RMV
Nickel	50.6	8.55	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Potassium	1880	192	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Selenium	0.245 U	0.245	mg/Kg	SW846-7740		07/23/99	07/29/99	JMO
Silver	0.101	0.0490	mg/Kg	SW846-7761		07/23/99	07/26/99	KGF
Sodium	199	42.8	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Thallium	0.333	0.245	mg/Kg	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	26.0	4.28	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Zinc	83.6	8.55	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC

150

200 W. Potter Drive, **Anchorage, AK 99518-1605** — Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road, **Fairbanks, AK 99709-5471** — Tel: (907) 474-8656 Fax: (907) 474-9685

CT&E Environmental Services Inc.

Laboratory Division

Laboratory Analysis Report

CT&E Ref.#	993500007	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:42
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:40
Client Sample ID	99SDRDME04	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	80.0		%	SM18 2540G			07/23/99	MPA

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CT&E Environmental Services Inc.

Laboratory Division

Laboratory Analysis Report

CT&E Ref.#	993500008	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:42
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 15:15
Client Sample ID	99SDRDME05	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	

Sample Remarks:
Corrected result for Arsenic.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	6800	49.2	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Antimony	18.4	2.30	mg/Kg	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	61.8	24.0	mg/Kg	SW846 7060		07/30/99	08/06/99	JMO
Barium	125	4.92	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Beryllium	0.260	0.0230	mg/Kg	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.315	0.0230	mg/Kg	SW846-7131		07/23/99	07/26/99	KGF
Calcium	1860	492	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Chromium	15.3	2.30	mg/Kg	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	14.8	4.92	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Copper	23.2	4.92	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Iron	38200	246	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Lead	7.76	2.30	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	2220	49.2	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Manganese	1240	9.84	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Mercury by Cold Vapor	0.309	0.0192	mg/Kg	SW846-7471		07/27/99	07/27/99	RMV
Nickel	35.5	9.84	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Potassium	566	221	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC
Selenium	0.230 U	0.230	mg/Kg	SW846-7740		07/23/99	07/29/99	JMO
Silver	0.130	0.0459	mg/Kg	SW846-7761		07/23/99	07/26/99	KGF
Sodium	49.2 U	49.2	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Thallium	0.230 U	0.230	mg/Kg	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	31.7	4.92	mg/Kg	SW846 6010B		07/22/99	07/23/99	WTA
Zinc	87.2	9.84	mg/Kg	SW846 6010B		07/22/99	07/27/99	CLC

150

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CT&E Environmental Services Inc.

Laboratory Division

Laboratory Analysis Report

CT&E Ref.#	993500008	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/17/99 10:42
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 15:15
Client Sample ID	99SDRDME05	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	80.9		%	SM18 2540G			07/23/99	MPA

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CT&E Environmental Services Inc.

CT&E Ref.#	993500009	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/17/99 08:45
Client Sample ID	99SLRDMB01	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	89.0		%	SM18 2540G			07/21/99	SEC
Metals by Graphite Furnace								
Lead	13500	872	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500010	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/17/99 08:50
Client Sample ID	99SLRDMB02	**Received Date/Time**	07/20/99 10:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windlebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	87.9		%	SM18 2540G			07/21/99	SEC
Metals by Graphite Furnace								
Lead	10700	885	mg/Kg	SW846-7421		07/23/99	07/26/99	KGF

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 16:01
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Wundebank

Sample Remarks:
8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.
8270 - LCS/LCSD RPD for 2-methylphenol(o-cresol), bis(2-chloroisopropyl)ether, 3&4-methylphenol, hexachloroethane, nitrobenzene, 2-nitrophenol,benzoic acid is biased high. The results for these compounds are estimated.
8270 - LCS/LCSD RPD for n-nitrosodimethlamine, pyridine, aniline, phenol, bis(2-chloroethyl)ether, 1,3,-dichlorobenzene, 1,4-dichlorobenzene, benzyl alcohol, 1,2-dichlorobenzene is biased high. The results for these compounds are estimated.
8270 - LCS/LCSD RPD for bis(2-chloroethoxyl)methane, 1,2,4-trichlorobenzene, naphthalene, hexachlorobutadiene, 2,4-dichlorophenol, 2-methylnaphthalene, and hexachlorocyclopentadien is biased high. The results for these compounds are estimated.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	0.111 U	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Antimony	0.366	0.111	mg/L	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	0.116	0.0556	mg/L	SW846 7060		07/23/99	07/27/99	JMO
Barium	0.0298	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Beryllium	0.000556 U	0.000556	mg/L	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.000556 U	0.000556	mg/L	SW846-7131		07/23/99	07/26/99	KGF
Calcium	16.2	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Chromium	0.00556 U	0.00556	mg/L	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Copper	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Iron	0.0890	0.0556	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Lead	0.00556 U	0.00556	mg/L	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	10.4	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Manganese	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Mercury by Cold Vapor	0.00143	0.000200	mg/L	SW7470/E245.1		07/26/99	07/26/99	RMV
Nickel	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Potassium	5.00 U	5.00	mg/L	SW846 6010B		07/23/99	07/27/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Selenium	0.00556 U	0.00556	mg/L	SW846-7740		07/23/99	07/27/99	JMO
Silver	0.00111 U	0.00111	mg/L	SW846-7761		07/23/99	07/26/99	KGF
Sodium	2.71	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Thallium	0.00556 U	0.00556	mg/L	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Zinc	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Vinyl chloride	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromomethane	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloroethane	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Trichlorofluoromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Methylene chloride	0.0050 U	0.0050	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Carbon disulfide	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
trans-1,2-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1-Dichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2,2-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
cis-1,2-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Butanone (MEK)	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromochloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloroform	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,1-Trichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Carbon tetrachloride	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Benzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Trichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Dibromomethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM

CT&E Environmental Services Inc.

CT&E Ref.#	993500011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Bromodichloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-chloroethylvinyl ether	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
cis-1,3-Dichloropropene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Toluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
trans-1,3-Dichloropropene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,2-Trichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Tetrachloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Dibromochloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dibromoethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,1,2-Tetrachloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Ethylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
P & M -Xylene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
o-Xylene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Styrene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromoform	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Isopropylbenzene (Cumene)	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,2,2-Tetrachloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,3-Trichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
n-Propylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Chlorotoluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Chlorotoluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3,5-Trimethylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
tert-Butylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,4-Trimethylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
sec-Butylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3-Dichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Isopropyltoluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,4-Dichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM

CT&E Environmental Services Inc.

CT&E Ref.#	993500011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director:**	**Stephen C. Ede**
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
n-Butylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dibromo-3-chloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,4-Trichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Hexachlorobutadiene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Naphthalene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,3-Trichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Methyl-2-pentanone (MIBK)	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Hexanone	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Surrogates								
1,2-Dichloroethane-D4 <surr>	104		%	SW846-8260	(68-125)	07/27/99	07/27/99	
Dibromofluoromethane <surr>	109		%	SW846-8260	(91-113)	07/27/99	07/27/99	
Toluene-d8 <surr>	105		%	SW846-8260	(93-113)	07/27/99	07/27/99	
4-Bromofluorobenzene <Surr>	93.4		%	SW846-8260	(87-111)	07/27/99	07/27/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyridine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Aniline	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Phenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Bis(2-Chloroethyl)ether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,3-Dichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,4-Dichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzyl alcohol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2-Dichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylphenol (o-Cresol)	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-chloroisopropyl)ether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitroso-di-n-propylamine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Hexachloroethane	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Nitrobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Isophorone	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Nitrophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dimethylphenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzoic acid	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Bis(2-Chloroethoxy)methane	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dichlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2,4-Trichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Naphthalene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloroaniline	0.021 U	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobutadiene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloro-3-methylphenol	0.021 U	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylnaphthalene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorocyclopentadiene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,6-Trichlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,5-Trichlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chloronaphthalene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Nitroaniline	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dimethylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,6-Dinitrotoluene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthylene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3-Nitroaniline	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitrophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrotoluene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzofuran	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Diethylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluorene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chlorophenyl-phenylether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitroaniline	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2-Methyl-4,6-dinitrophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitrosodiphenylamine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Azobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Bromophenyl-phenylether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pentachlorophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Phenanthrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Anthracene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Di-n-butylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluoranthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Butylbenzylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3,3-Dichlorobenzidine	0.021 U	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo(a)Anthracene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Chrysene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-Ethylhexyl)phthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
di-n-Octylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[b]Fluoranthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[k]fluoranthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[a]pyrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Indeno[1,2,3-c,d] pyrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzo[a,h]anthracene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[g,h,i]perylene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	68.1		%	SW846-8270	(39-107)	07/21/99	07/30/99	
Phenol-d6 <Surr>	19.1		%	SW846-8270	(10-42)	07/21/99	07/30/99	
Terphenyl-d14 <Surr>	97.6		%	SW846-8270	(44-117)	07/21/99	07/30/99	
2-Fluorobiphenyl <Surr>	48.2		%	SW846-8270	(23-86)	07/21/99	07/30/99	
2-Fluorophenol <Surr>	26.8		%	SW846-8270	(10-57)	07/21/99	07/30/99	
Nitrobenzene-d5 <Surr>	47.1		%	SW846-8270	(24-89)	07/21/99	07/30/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.105 U	0.105	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1221	0.105 U	0.105	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1232	0.105 U	0.105	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1242	0.105 U	0.105	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1248	0.105 U	0.105	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1254	0.105 U	0.105	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1260	0.105 U	0.105	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	88.3		%	SW846 8082	(42.3-124)	07/21/99	07/22/99	
Pesticides								
gamma-Chlordane	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-Chlordane	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-BHC	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
beta-BHC	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
gamma-BHC (Lindane)	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
delta-BHC	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Aldrin	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor epoxide	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan I	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDE	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Dieldrin	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan II	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDD	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Endrin aldehyde	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDT	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan sulfate	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin ketone	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Methoxychlor	0.0105 U	0.0105	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Toxaphene	1.05 U	1.05	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	72.2		%	SW846-8081A	(64-150)	07/21/99	07/23/99	
Tetrachloro-m-xylene <Surr>	43.5		%	SW846-8081A	(13-114)	07/21/99	07/23/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 16:01
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SWRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.
8270 - LCS/LCSD RPD for bis(2-chloroethoxyl)methane, 1,2,4-trichlorobenzene, naphthalene, hexachlorobutadiene, 2,4-dichlorophenol, 2-methylnaphthalene, and hexachlorocyclopentadien is biased high. The results for these compounds are estimated.
8270 - LCS/LCSD RPD for n-nitrosodimethlamine, pyridine, aniline, phenol, bis(2-chloroethyl)ether, 1,3,-dichlorobenzene, 1,4-dichlorobenzene, benzyl alcohol, 1,2-dichlorobenzene is biased high. The results for these compounds are estimated.
8270 - LCS/LCSD RPD for 2-methylphenol(o-cresol), bis(2-chloroisopropyl)ether, 3&4-methylphenol, hexachloroethane, nitrobenzene, 2-nitrophenol,benzoic acid is biased high. The results for these compounds are estimated.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	0.185	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Antimony	0.0754	0.00556	mg/L	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	0.0249	0.00556	mg/L	SW846 7060		07/23/99	07/27/99	JMO
Barium	0.0227	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Beryllium	0.000556 U	0.000556	mg/L	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.000556 U	0.000556	mg/L	SW846-7131		07/23/99	07/26/99	KGF
Calcium	14.2	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Chromium	0.00556 U	0.00556	mg/L	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Copper	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Iron	0.106	0.0556	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Lead	0.00556 U	0.00556	mg/L	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	7.61	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Manganese	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Mercury by Cold Vapor	0.000200 U	0.000200	mg/L	SW7470/E245.1		07/26/99	07/26/99	RMV
Nickel	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Potassium	5.00 U	5.00	mg/L	SW846 6010B		07/23/99	07/27/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SWRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Selenium	0.00556 U	0.00556	mg/L	SW846-7740		07/23/99	07/27/99	JMO
Silver	0.00111 U	0.00111	mg/L	SW846-7761		07/23/99	07/26/99	KGF
Sodium	1.67	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Thallium	0.00556 U	0.00556	mg/L	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Zinc	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Vinyl chloride	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromomethane	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloroethane	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Trichlorofluoromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Methylene chloride	0.0050 U	0.0050	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Carbon disulfide	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
trans-1,2-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1-Dichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2,2-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
cis-1,2-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Butanone (MEK)	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromochloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloroform	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,1-Trichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Carbon tetrachloride	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Benzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Trichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Dibromomethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SWRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Bromodichloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-chloroethylvinyl ether	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
cis-1,3-Dichloropropene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Toluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
trans-1,3-Dichloropropene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,2-Trichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Tetrachloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Dibromochloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dibromoethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,1,2-Tetrachloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Ethylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
P & M -Xylene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
o-Xylene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Styrene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromoform	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Isopropylbenzene (Cumene)	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,2,2-Tetrachloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,3-Trichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
n-Propylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Chlorotoluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Chlorotoluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3,5-Trimethylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
tert-Butylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,4-Trimethylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
sec-Butylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3-Dichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Isopropyltoluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,4-Dichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM

CT&E Environmental Services Inc.

CT&E Ref.#	993500012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine.47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SWRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
n-Butylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dibromo-3-chloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,4-Trichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Hexachlorobutadiene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Naphthalene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,3-Trichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Methyl-2-pentanone (MIBK)	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Hexanone	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Surrogates								
1,2-Dichloroethane-D4 <surr>	105		%	SW846-8260	(68-125)	07/27/99	07/27/99	
Dibromofluoromethane <surr>	109		%	SW846-8260	(91-113)	07/27/99	07/27/99	
Toluene-d8 <surr>	104		%	SW846-8260	(93-113)	07/27/99	07/27/99	
4-Bromofluorobenzene <Surr>	93		%	SW846-8260	(87-111)	07/27/99	07/27/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyridine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Aniline	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Phenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Bis(2-Chloroethyl)ether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,3-Dichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,4-Dichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzyl alcohol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2-Dichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylphenol (o-Cresol)	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-chloroisopropyl)ether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitroso-di-n-propylamine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SWRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Hexachloroethane	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Nitrobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Isophorone	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Nitrophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dimethylphenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzoic acid	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Bis(2-Chloroethoxy)methane	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dichlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2,4-Trichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Naphthalene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloroaniline	0.021 U	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobutadiene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloro-3-methylphenol	0.021 U	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylnaphthalene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorocyclopentadiene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,6-Trichlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,5-Trichlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chloronaphthalene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Nitroaniline	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dimethylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,6-Dinitrotoluene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthylene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3-Nitroaniline	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitrophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrotoluene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzofuran	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Diethylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluorene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chlorophenyl-phenylether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitroaniline	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SWRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2-Methyl-4,6-dinitrophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitrosodiphenylamine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Azobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Bromophenyl-phenylether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pentachlorophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Phenanthrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Anthracene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Di-n-butylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluoranthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Butylbenzylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3,3-Dichlorobenzidine	0.021 U	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo(a)Anthracene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Chrysene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-Ethylhexyl)phthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
di-n-Octylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[b]Fluoranthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[k]fluoranthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[a]pyrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Indeno[1,2,3-c,d] pyrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzo[a,h]anthracene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[g,h,i]perylene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	59.8		%	SW846-8270	(39-107)	07/21/99	07/30/99	
Phenol-d6 <Surr>	19.8		%	SW846-8270	(10-42)	07/21/99	07/30/99	
Terphenyl-d14 <Surr>	96		%	SW846-8270	(44-117)	07/21/99	07/30/99	
2-Fluorobiphenyl <Surr>	41.2		%	SW846-8270	(23-86)	07/21/99	07/30/99	
2-Fluorophenol <Surr>	25.3		%	SW846-8270	(10-57)	07/21/99	07/30/99	
Nitrobenzene-d5 <Surr>	48.2		%	SW846-8270	(24-89)	07/21/99	07/30/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SWRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1221	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1232	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1242	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1248	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1254	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Aroclor-1260	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/22/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	91.5		%	SW846 8082	(42.3-124)	07/21/99	07/22/99	
Pesticides								
gamma-Chlordane	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-Chlordane	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-BHC	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
beta-BHC	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
gamma-BHC (Lindane)	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
delta-BHC	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Aldrin	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor epoxide	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan I	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDE	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Dieldrin	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan II	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDD	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:15
Client Sample ID	99SWRDME02	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director:**	**Stephen C. Ede**
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Endrin aldehyde	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDT	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan sulfate	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin ketone	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Methoxychlor	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Toxaphene	1.03 U	1.03	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	75.5		%	SW846-8081A	(64-150)	07/21/99	07/23/99	
Tetrachloro-m-xylene <Surr>	46.1		%	SW846-8081A	(13-114)	07/21/99	07/23/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 16:01
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:35
Client Sample ID	99SWRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windlebank

Sample Remarks:
8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.
8270 - LCS/LCSD RPD for 2-methylphenol(o-cresol), bis(2-chloroisopropyl)ether, 3&4-methylphenol, hexachloroethane, nitrobenzene, 2-nitrophenol,benzoic acid is biased high. The results for these compounds are estimated.
8270 - LCS/LCSD RPD for n-nitrosodimethlamine, pyridine, aniline, phenol, bis(2-chloroethyl)ether, 1,3,-dichlorobenzene, 1,4-dichlorobenzene, benzyl alcohol, 1,2-dichlorobenzene is biased high. The results for these compounds are estimated.
8270 - LCS/LCSD RPD for bis(2-chloroethoxyl)methane, 1,2,4-trichlorobenzene, naphthalene, hexachlorobutadiene, 2,4-dichlorophenol, 2-methylnaphthalene, and hexachlorocyclopentadien is biased high. The results for these compounds are estimated.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	0.111 U	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Antimony	0.0878	0.0556	mg/L	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	0.0303	0.00556	mg/L	SW846 7060		07/23/99	07/27/99	JMO
Barium	0.0227	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Beryllium	0.000556 U	0.000556	mg/L	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.000556 U	0.000556	mg/L	SW846-7131		07/23/99	07/26/99	KGF
Calcium	14.1	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Chromium	0.00556 U	0.00556	mg/L	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Copper	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Iron	0.0556 U	0.0556	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Lead	0.00556 U	0.00556	mg/L	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	7.59	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Manganese	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Mercury by Cold Vapor	0.000262	0.000200	mg/L	SW7470/E245.1		07/26/99	07/26/99	RMV
Nickel	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Potassium	5.00 U	5.00	mg/L	SW846 6010B		07/23/99	07/27/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:35
Client Sample ID	99SWRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Selenium	0.00556 U	0.00556	mg/L	SW846-7740		07/23/99	07/27/99	JMO
Silver	0.00111 U	0.00111	mg/L	SW846-7761		07/23/99	07/26/99	KGF
Sodium	1.64	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Thallium	0.00556 U	0.00556	mg/L	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Zinc	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Vinyl chloride	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromomethane	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloroethane	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Trichlorofluoromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Methylene chloride	0.0050 U	0.0050	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Carbon disulfide	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
trans-1,2-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1-Dichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2,2-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
cis-1,2-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Butanone (MEK)	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromochloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloroform	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,1-Trichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Carbon tetrachloride	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Benzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Trichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Dibromomethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:35
Client Sample ID	99SWRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Bromodichloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-chloroethylvinyl ether	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
cis-1,3-Dichloropropene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Toluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
trans-1,3-Dichloropropene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,2-Trichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Tetrachloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Dibromochloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dibromoethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,1,2-Tetrachloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Ethylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
P & M -Xylene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
o-Xylene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Styrene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromoform	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Isopropylbenzene (Cumene)	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,2,2-Tetrachloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,3-Trichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
n-Propylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Chlorotoluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Chlorotoluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3,5-Trimethylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
tert-Butylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,4-Trimethylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
sec-Butylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3-Dichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Isopropyltoluene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,4-Dichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:35
Client Sample ID	99SWRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
n-Butylbenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dibromo-3-chloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,4-Trichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Hexachlorobutadiene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Naphthalene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,3-Trichlorobenzene	0.0010 U	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Methyl-2-pentanone (MIBK)	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Hexanone	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Surrogates								
1,2-Dichloroethane-D4 <surr>	101		%	SW846-8260	(68-125)	07/27/99	07/27/99	
Dibromofluoromethane <surr>	109		%	SW846-8260	(91-113)	07/27/99	07/27/99	
Toluene-d8 <surr>	106		%	SW846-8260	(93-113)	07/27/99	07/27/99	
4-Bromofluorobenzene <Surr>	94.7		%	SW846-8260	(87-111)	07/27/99	07/27/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyridine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Aniline	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Phenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Bis(2-Chloroethyl)ether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,3-Dichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,4-Dichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzyl alcohol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2-Dichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylphenol (o-Cresol)	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-chloroisopropyl)ether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitroso-di-n-propylamine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:35
Client Sample ID	99SWRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Hexachloroethane	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Nitrobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Isophorone	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Nitrophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dimethylphenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzoic acid	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Bis(2-Chloroethoxy)methane	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dichlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2,4-Trichlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Naphthalene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloroaniline	0.021 U	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobutadiene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloro-3-methylphenol	0.021 U	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylnaphthalene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorocyclopentadiene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,6-Trichlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,5-Trichlorophenol	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chloronaphthalene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Nitroaniline	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dimethylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,6-Dinitrotoluene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthylene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3-Nitroaniline	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitrophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrotoluene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzofuran	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Diethylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluorene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chlorophenyl-phenylether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitroaniline	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ

CT&E Environmental Services Inc.

CT&E Ref.#	993500013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:35
Client Sample ID	99SWRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2-Methyl-4,6-dinitrophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitrosodiphenylamine	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Azobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Bromophenyl-phenylether	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobenzene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pentachlorophenol	0.052 U	0.052	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Phenanthrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Anthracene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Di-n-butylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluoranthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Butylbenzylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3,3-Dichlorobenzidine	0.021 U	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo(a)Anthracene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Chrysene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-Ethylhexyl)phthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
di-n-Octylphthalate	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[b]Fluoranthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[k]fluoranthene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[a]pyrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Indeno[1,2,3-c,d] pyrene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzo[a,h]anthracene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[g,h,i]perylene	0.010 U	0.010	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	58.5		%	SW846-8270	(39-107)	07/21/99	07/30/99	
Phenol-d6 <Surr>	19.7		%	SW846-8270	(10-42)	07/21/99	07/30/99	
Terphenyl-d14 <Surr>	98.2		%	SW846-8270	(44-117)	07/21/99	07/30/99	
2-Fluorobiphenyl <Surr>	37.9		%	SW846-8270	(23-86)	07/21/99	07/30/99	
2-Fluorophenol <Surr>	26		%	SW846-8270	(10-57)	07/21/99	07/30/99	
Nitrobenzene-d5 <Surr>	43.1		%	SW846-8270	(24-89)	07/21/99	07/30/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 12:35
Client Sample ID	99SWRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1221	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1232	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1242	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1248	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1254	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1260	0.103 U	0.103	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	86.4		%	SW846 8082	(42.3-124)	07/21/99	07/23/99	
Pesticides								
gamma-Chlordane	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-Chlordane	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-BHC	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
beta-BHC	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
gamma-BHC (Lindane)	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
delta-BHC	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Aldrin	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor epoxide	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan I	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDE	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Dieldrin	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan II	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDD	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine.47411	**Collected Date/Time**	07/16/99 12:35
Client Sample ID	99SWRDME03	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Endrin aldehyde	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDT	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan sulfate	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin ketone	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Methoxychlor	0.0103 U	0.0103	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Toxaphene	1.03 U	1.03	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	71.5		%	SW846-8081A	(64-150)	07/21/99	07/23/99	
Tetrachloro-m-xylene <Surr>	41.4		%	SW846-8081A	(13-114)	07/21/99	07/23/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500014	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 08:40
Client Sample ID	99SWRDMK01	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	1.76	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Antimony	0.0556 U	0.0556	mg/L	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	0.00556 U	0.00556	mg/L	SW846 7060		07/23/99	07/27/99	JMO
Barium	0.0549	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Beryllium	0.000556 U	0.000556	mg/L	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.000556 U	0.000556	mg/L	SW846-7131		07/23/99	07/26/99	KGF
Calcium	17.3	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Chromium	0.00556 U	0.00556	mg/L	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Copper	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Iron	3.73	0.0556	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Lead	0.00556 U	0.00556	mg/L	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	4.73	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Manganese	0.0877	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Mercury by Cold Vapor	0.000200 U	0.000200	mg/L	SW7470/E245.1		07/26/99	07/26/99	RMV
Nickel	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Potassium	5.00 U	5.00	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Selenium	0.00556 U	0.00556	mg/L	SW846-7740		07/23/99	07/27/99	JMO
Silver	0.00111 U	0.00111	mg/L	SW846-7761		07/23/99	07/26/99	KGF
Sodium	2.02	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Thallium	0.00556 U	0.00556	mg/L	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Zinc	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500015	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:32
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 08:55
Client Sample ID	99SWRDMK02	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	1.48	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Antimony	0.00556 U	0.00556	mg/L	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	0.00556 U	0.00556	mg/L	SW846 7060		07/23/99	07/27/99	JMO
Barium	0.0508	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Beryllium	0.000556 U	0.000556	mg/L	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.000556 U	0.000556	mg/L	SW846-7131		07/23/99	07/26/99	KGF
Calcium	17.0	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Chromium	0.00556 U	0.00556	mg/L	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Copper	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Iron	3.12	0.0556	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Lead	0.00556 U	0.00556	mg/L	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	4.59	0.111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Manganese	0.0809	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Mercury by Cold Vapor	0.000200 U	0.000200	mg/L	SW7470/E245.1		07/26/99	07/26/99	RMV
Nickel	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Potassium	5.00 U	5.00	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Selenium	0.00556 U	0.00556	mg/L	SW846-7740		07/23/99	07/27/99	JMO
Silver	0.00111 U	0.00111	mg/L	SW846-7761		07/23/99	07/26/99	KGF
Sodium	2.03	1.11	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Thallium	0.00556 U	0.00556	mg/L	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	0.0111 U	0.0111	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Zinc	0.0222 U	0.0222	mg/L	SW846 6010B		07/23/99	07/27/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500016	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 09:55
Client Sample ID	99SWRDMK03	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	1.71	0.111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Antimony	0.00556 U	0.00556	mg/L	SW846-7041		07/27/99	07/28/99	KGF
Arsenic	0.00556 U	0.00556	mg/L	SW846 7060		07/27/99	07/28/99	JMO
Barium	0.0547	0.0111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Beryllium	0.000556 U	0.000556	mg/L	SW846-7091		07/27/99	07/28/99	KGF
Cadmium	0.000556 U	0.000556	mg/L	SW846-7131		07/27/99	07/28/99	KGF
Calcium	17.2	1.11	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Chromium	0.00556 U	0.00556	mg/L	SW846-7191		07/27/99	07/28/99	KGF
Cobalt	0.0111 U	0.0111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Copper	0.0111 U	0.0111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Iron	3.49	0.0556	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Lead	0.00556 U	0.00556	mg/L	SW846-7421		07/27/99	07/28/99	KGF
Magnesium	4.72	0.111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Manganese	0.0832	0.0222	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Mercury by Cold Vapor	0.000200 U	0.000200	mg/L	SW7470/E245.1		07/26/99	07/26/99	RMV
Nickel	0.0222 U	0.0222	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Potassium	5.00 U	5.00	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Selenium	0.00556 U	0.00556	mg/L	SW846-7740		07/27/99	07/28/99	JMO
Silver	0.00111 U	0.00111	mg/L	SW846-7761		07/27/99	07/28/99	KGF
Sodium	2.04	1.11	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Thallium	0.00556 U	0.00556	mg/L	SW846-7841		07/27/99	07/28/99	KGF
Vanadium	0.0111 U	0.0111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Zinc	0.0222 U	0.0222	mg/L	SW846 6010B		07/27/99	07/30/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500017	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 15:15
Client Sample ID	99SWRDME04	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	0.111 U	0.111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Antimony	0.00556 U	0.00556	mg/L	SW846-7041		07/27/99	07/28/99	KGF
Arsenic	0.00556 U	0.00556	mg/L	SW846 7060		07/27/99	07/28/99	JMO
Barium	0.0232	0.0111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Beryllium	0.000556 U	0.000556	mg/L	SW846-7091		07/27/99	07/28/99	KGF
Cadmium	0.000556 U	0.000556	mg/L	SW846-7131		07/27/99	07/28/99	KGF
Calcium	14.9	1.11	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Chromium	0.00556 U	0.00556	mg/L	SW846-7191		07/27/99	07/28/99	KGF
Cobalt	0.0111 U	0.0111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Copper	0.0111 U	0.0111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Iron	0.0934	0.0556	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Lead	0.00556 U	0.00556	mg/L	SW846-7421		07/27/99	07/28/99	KGF
Magnesium	7.77	0.111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Manganese	0.0222 U	0.0222	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Mercury by Cold Vapor	0.000200 U	0.000200	mg/L	SW7470/E245.1		07/26/99	07/26/99	RMV
Nickel	0.0222 U	0.0222	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Potassium	5.00 U	5.00	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Selenium	0.00556 U	0.00556	mg/L	SW846-7740		07/27/99	07/28/99	JMO
Silver	0.00111 U	0.00111	mg/L	SW846-7761		07/27/99	07/28/99	KGF
Sodium	1.53	1.11	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Thallium	0.00556 U	0.00556	mg/L	SW846-7841		07/27/99	07/28/99	KGF
Vanadium	0.0111 U	0.0111	mg/L	SW846 6010B		07/27/99	07/30/99	CLC
Zinc	0.0222 U	0.0222	mg/L	SW846 6010B		07/27/99	07/30/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500018	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 15:15
Client Sample ID	Trip Blank	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windlebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Chloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Vinyl chloride	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Bromomethane	0.010 U	0.010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Chloroethane	0.010 U	0.010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Trichlorofluoromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
1,1-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Methylene chloride	0.0050 U	0.0050	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Carbon disulfide	0.010 U	0.010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
trans-1,2-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
1,1-Dichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
2,2-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
cis-1,2-Dichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
2-Butanone (MEK)	0.010 U	0.010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Bromochloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Chloroform	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
1,1,1-Trichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Carbon tetrachloride	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Benzene	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
1,2-Dichloroethane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Trichloroethene	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
1,2-Dichloropropane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Dibromomethane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Bromodichloromethane	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
2-chloroethylvinyl ether	0.010 U	0.010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
cis-1,3-Dichloropropene	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM
Toluene	0.0010 U	0.0010	mg/L	SW846-8260		07/28/99	07/28/99	MCM

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500019	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MS	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
8081- MS and RPD for endosulfan sulfate fail high bias, possibly due to matrix interference. MSD, LCS and LCSD are within the Q.C. limit. The results are not affected.
8081- LCSD for heptachlor and aldrin is biased low. The RPD is biased high. The results for these compounds are estimated.
8081- Surrogate recovery is biased low. MS %R is within the limit except endosulfan sulfate high bias. The results are not affected significantly.
8260 - 2-Chloroethylvinyl ether recovery 0%, due to matrix. See LCS/LCSD for control.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Target Analyte List								
Aluminum	1.19	0.118	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Antimony	0.757	0.227	mg/L	SW846-7041		07/23/99	07/27/99	KGF
Arsenic	0.483	0.0568	mg/L	SW846 7060		07/23/99	07/27/99	JMO
Barium	1.22	0.0118	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Beryllium	0.0360	0.00568	mg/L	SW846-7091		07/23/99	07/27/99	KGF
Cadmium	0.0336	0.00568	mg/L	SW846-7131		07/23/99	07/26/99	KGF
Calcium	27.4	1.18	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Chromium	0.680	0.0568	mg/L	SW846-7191		07/23/99	07/26/99	KGF
Cobalt	1.17	0.0118	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Copper	1.17	0.0118	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Iron	1.24	0.0588	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Lead	0.306	0.0568	mg/L	SW846-7421		07/23/99	07/26/99	KGF
Magnesium	21.6	0.118	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Manganese	1.18	0.0235	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Mercury by Cold Vapor	0.00327	0.000200	mg/L	SW7470/E245.1		07/26/99	07/26/99	RMV
Nickel	1.16	0.0235	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Potassium	10.4	5.29	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Selenium	0.373	0.0568	mg/L	SW846-7740		07/23/99	07/27/99	JMO
Silver	0.0584	0.0114	mg/L	SW846-7761		07/23/99	07/26/99	KGF
Sodium	14.3	1.18	mg/L	SW846 6010B		07/23/99	07/27/99	CLC

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500019	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MS	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Thallium	0.175	0.0568	mg/L	SW846-7841		07/23/99	07/27/99	KGF
Vanadium	1.16	0.0118	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
Zinc	1.12	0.0235	mg/L	SW846 6010B		07/23/99	07/27/99	CLC
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.00792	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloromethane	0.00882	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Vinyl chloride	0.00913	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromomethane	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloroethane	0.0113	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Trichlorofluoromethane	0.00881	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1-Dichloroethene	0.0101	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Methylene chloride	0.0100	0.0050	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Carbon disulfide	0.0153	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
trans-1,2-Dichloroethene	0.00996	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1-Dichloroethane	0.00976	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2,2-Dichloropropane	0.00892	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
cis-1,2-Dichloroethene	0.0106	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Butanone (MEK)	0.0134	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromochloromethane	0.0103	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chloroform	0.0100	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,1-Trichloroethane	0.0100	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Carbon tetrachloride	0.0104	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Benzene	0.00995	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichloroethane	0.0101	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Trichloroethene	0.0101	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichloropropane	0.0106	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Dibromomethane	0.0103	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromodichloromethane	0.00929	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-chloroethylvinyl ether	0.010 U	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
cis-1,3-Dichloropropene	0.00936	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500019	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MS	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Toluene	0.0102	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
trans-1,3-Dichloropropene	0.00894	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,2-Trichloroethane	0.00961	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Tetrachloroethene	0.00974	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3-Dichloropropane	0.00970	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Dibromochloromethane	0.00971	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dibromoethane	0.0102	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Chlorobenzene	0.00978	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,1,2-Tetrachloroethane	0.00931	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Ethylbenzene	0.00952	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
P & M -Xylene	0.0193	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
o-Xylene	0.00958	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Styrene	0.00978	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromoform	0.00845	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Isopropylbenzene (Cumene)	0.00935	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Bromobenzene	0.00902	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,1,2,2-Tetrachloroethane	0.00894	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,3-Trichloropropane	0.00895	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
n-Propylbenzene	0.00887	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Chlorotoluene	0.00904	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Chlorotoluene	0.00884	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3,5-Trimethylbenzene	0.00905	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
tert-Butylbenzene	0.00916	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,4-Trimethylbenzene	0.00950	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
sec-Butylbenzene	0.00934	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,3-Dichlorobenzene	0.00880	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Isopropyltoluene	0.00931	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,4-Dichlorobenzene	0.00884	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dichlorobenzene	0.0103	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
n-Butylbenzene	0.0103	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2-Dibromo-3-chloropropane	0.00942	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,4-Trichlorobenzene	0.0103	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500019	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MS	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Hexachlorobutadiene	0.0105	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Naphthalene	0.0110	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
1,2,3-Trichlorobenzene	0.0103	0.0010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
4-Methyl-2-pentanone (MIBK)	0.0152	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Hexanone	0.0139	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Surrogates								
1,2-Dichloroethane-D4 <surr>	105		%	SW846-8260	(68-125)	07/27/99	07/27/99	
Dibromofluoromethane <surr>	110		%	SW846-8260	(91-113)	07/27/99	07/27/99	
Toluene-d8 <surr>	109		%	SW846-8260	(93-113)	07/27/99	07/27/99	
4-Bromofluorobenzene <Surr>	96		%	SW846-8260	(87-111)	07/27/99	07/27/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.0316	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyridine	0.0263	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Aniline	0.0460	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Phenol	0.0297	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Bis(2-Chloroethyl)ether	0.0495	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chlorophenol	0.0510	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,3-Dichlorobenzene	0.0353	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,4-Dichlorobenzene	0.0364	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzyl alcohol	0.0486	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2-Dichlorobenzene	0.0380	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylphenol (o-Cresol)	0.0565	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-chloroisopropyl)ether	0.0503	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.0790	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitroso-di-n-propylamine	0.0703	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachloroethane	0.0354	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Nitrobenzene	0.0517	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Isophorone	0.0683	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500019	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine.47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MS	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2-Nitrophenol	0.0577	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dimethylphenol	0.0597	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzoic acid	0.053 U	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Bis(2-Chloroethoxy)methane	0.0596	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dichlorophenol	0.0592	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2,4-Trichlorobenzene	0.0436	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Naphthalene	0.0530	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloroaniline	0.0689	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobutadiene	0.0415	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloro-3-methylphenol	0.0761	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylnaphthalene	0.0606	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorocyclopentadiene	0.0423	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,6-Trichlorophenol	0.0810	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,5-Trichlorophenol	0.0822	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chloronaphthalene	0.0676	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Nitroaniline	0.0932	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dimethylphthalate	0.0866	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,6-Dinitrotoluene	0.0885	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthylene	0.0776	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3-Nitroaniline	0.0878	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthene	0.0778	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrophenol	0.146	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitrophenol	0.053 U	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrotoluene	0.0882	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzofuran	0.0827	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Diethylphthalate	0.0890	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluorene	0.0914	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chlorophenyl-phenylether	0.0876	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitroaniline	0.100	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methyl-4,6-dinitrophenol	0.173	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitrosodiphenylamine	0.0946	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Azobenzene	0.0844	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500019	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MS	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
4-Bromophenyl-phenylether	0.0808	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobenzene	0.0922	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pentachlorophenol	0.116	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Phenanthrene	0.0855	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Anthracene	0.0870	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Di-n-butylphthalate	0.0927	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluoranthene	0.0865	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyrene	0.101	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Butylbenzylphthalate	0.106	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3;3-Dichlorobenzidine	0.0672	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo(a)Anthracene	0.0889	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Chrysene	0.0906	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-Ethylhexyl)phthalate	0.103	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
di-n-Octylphthalate	0.102	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[b]Fluoranthene	0.0948	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[k]fluoranthene	0.0937	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[a]pyrene	0.0903	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Indeno[1,2,3-c,d] pyrene	0.0874	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzo[a,h]anthracene	0.0847	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[g,h,i]perylene	0.0881	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	81.5		%	SW846-8270	(39-107)	07/21/99	07/30/99	
Phenol-d6 <Surr>	24.4		%	SW846-8270	(10-42)	07/21/99	07/30/99	
Terphenyl-d14 <Surr>	94.3		%	SW846-8270	(44-117)	07/21/99	07/30/99	
2-Fluorobiphenyl <Surr>	47.9		%	SW846-8270	(23-86)	07/21/99	07/30/99	
2-Fluorophenol <Surr>	27.1		%	SW846-8270	(10-57)	07/21/99	07/30/99	
Nitrobenzene-d5 <Surr>	46.9		%	SW846-8270	(24-89)	07/21/99	07/30/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500020	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MSD	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Aroclor-1242	0.211 U	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1248	0.211 U	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1254	0.211 U	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1260	1.94	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	86.4		%	SW846 8082	(42-124)	07/21/99	07/23/99	
Pesticides								
gamma-Chlordane	0.175	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-Chlordane	0.179	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-BHC	0.171	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
beta-BHC	0.185	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
gamma-BHC (Lindane)	0.177	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
delta-BHC	0.187	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor	0.185	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Aldrin	0.181	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor epoxide	0.183	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan I	0.200	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDE	0.179	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Dieldrin	0.168	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin	0.206	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan II	0.179	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDD	0.200	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin aldehyde	0.181	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDT	0.200	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan sulfate	0.223	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin ketone	0.196	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Methoxychlor	0.238	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Toxaphene	2.11 U	2.11	ug/L	SW846-8081A		07/21/99	07/23/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500020	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MSD	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
4-Methyl-2-pentanone (MIBK)	0.0152	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
2-Hexanone	0.0138	0.010	mg/L	SW846-8260		07/27/99	07/27/99	MCM
Surrogates								
1,2-Dichloroethane-D4 <surr>	103		%	SW846-8260	(68-125)	07/27/99	07/27/99	
Dibromofluoromethane <surr>	109		%	SW846-8260	(91-113)	07/27/99	07/27/99	
Toluene-d8 <surr>	105		%	SW846-8260	(93-113)	07/27/99	07/27/99	
4-Bromofluorobenzene <Surr>	96.2		%	SW846-8260	(87-111)	07/27/99	07/27/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.0346	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyridine	0.0283	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Aniline	0.0453	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Phenol	0.0294	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Bis(2-Chloroethyl)ether	0.0510	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chlorophenol	0.0551	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,3-Dichlorobenzene	0.0382	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,4-Dichlorobenzene	0.0384	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzyl alcohol	0.0488	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2-Dichlorobenzene	0.0403	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylphenol (o-Cresol)	0.0564	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-chloroisopropyl)ether	0.0507	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.0775	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitroso-di-n-propylamine	0.0685	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachloroethane	0.0377	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Nitrobenzene	0.0526	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Isophorone	0.0675	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Nitrophenol	0.0611	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dimethylphenol	0.0623	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzoic acid	0.053 U	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500020	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MSD	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Bis(2-Chloroethoxy)methane	0.0598	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dichlorophenol	0.0619	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
1,2,4-Trichlorobenzene	0.0454	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Naphthalene	0.0543	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloroaniline	0.0676	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobutadiene	0.0433	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chloro-3-methylphenol	0.0719	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methylnaphthalene	0.0604	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorocyclopentadiene	0.0463	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,6-Trichlorophenol	0.0798	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4,5-Trichlorophenol	0.0826	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Chloronaphthalene	0.0676	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Nitroaniline	0.0876	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dimethylphthalate	0.0832	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,6-Dinitrotoluene	0.0835	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthylene	0.0758	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3-Nitroaniline	0.0855	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Acenaphthene	0.0767	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrophenol	0.147	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitrophenol	0.053 U	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2,4-Dinitrotoluene	0.0845	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzofuran	0.0796	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Diethylphthalate	0.0863	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluorene	0.0858	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Chlorophenyl-phenylether	0.0839	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Nitroaniline	0.0974	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
2-Methyl-4,6-dinitrophenol	0.169	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ
N-Nitrosodiphenylamine	0.0844	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Azobenzene	0.0813	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
4-Bromophenyl-phenylether	0.0769	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Hexachlorobenzene	0.0859	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pentachlorophenol	0.115	0.053	mg/L	SW846-8270		07/21/99	07/30/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500020	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MSD	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Phenanthrene	0.0833	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Anthracene	0.0831	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Di-n-butylphthalate	0.0880	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Fluoranthene	0.0848	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Pyrene	0.0953	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Butylbenzylphthalate	0.101	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
3,3-Dichlorobenzidine	0.0706	0.021	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo(a)Anthracene	0.0855	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Chrysene	0.0908	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
bis(2-Ethylhexyl)phthalate	0.102	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
di-n-Octylphthalate	0.0965	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[b]Fluoranthene	0.0933	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[k]fluoranthene	0.0874	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[a]pyrene	0.0869	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Indeno[1,2,3-c,d] pyrene	0.0868	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Dibenzo[a,h]anthracene	0.0838	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Benzo[g,h,i]perylene	0.0853	0.011	mg/L	SW846-8270		07/21/99	07/30/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	75.3		%	SW846-8270	(39-107)	07/21/99	07/30/99	
Phenol-d6 <Surr>	23.8		%	SW846-8270	(10-42)	07/21/99	07/30/99	
Terphenyl-d14 <Surr>	90.7		%	SW846-8270	(44-117)	07/21/99	07/30/99	
2-Fluorobiphenyl <Surr>	49.4		%	SW846-8270	(23-86)	07/21/99	07/30/99	
2-Fluorophenol <Surr>	30.4		%	SW846-8270	(10-57)	07/21/99	07/30/99	
Nitrobenzene-d5 <Surr>	48		%	SW846-8270	(24-89)	07/21/99	07/30/99	
PCB's by GC ECD								
Aroclor-1016	2.04	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1221	0.211 U	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1232	0.211 U	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500020	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MSD	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Aroclor-1242	0.211 U	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1248	0.211 U	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1254	0.211 U	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Aroclor-1260	1.94	0.211	ug/L	SW846 8082		07/21/99	07/23/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	86.4		%	SW846 8082	(42-124)	07/21/99	07/23/99	
Pesticides								
gamma-Chlordane	0.175	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-Chlordane	0.179	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
alpha-BHC	0.171	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
beta-BHC	0.185	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
gamma-BHC (Lindane)	0.177	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
delta-BHC	0.187	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor	0.185	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Aldrin	0.181	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Heptachlor epoxide	0.183	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan I	0.200	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDE	0.179	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Dieldrin	0.168	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin	0.206	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan II	0.179	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDD	0.200	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin aldehyde	0.181	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
4,4'-DDT	0.200	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endosulfan sulfate	0.223	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Endrin ketone	0.196	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Methoxychlor	0.238	0.0211	ug/L	SW846-8081A		07/21/99	07/23/99	LZ
Toxaphene	2.11 U	2.11	ug/L	SW846-8081A		07/21/99	07/23/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993500020	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/11/99 08:33
Project Name/#	Red Devil Mine 47411	**Collected Date/Time**	07/16/99 10:30
Client Sample ID	99SWRDME01 MSD	**Received Date/Time**	07/20/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter		Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Surrogates									
Decachlorobiphenyl <Surr>		66		%	SW846-8081A	(64-150)	07/21/99	07/23/99	
Tetrachloro-m-xylene <Surr>	!	5.2		%	SW846-8081A	(13-114)	07/21/99	07/23/99	

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)	**Prep Method**	SW5030
Original	993500011	**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results affect the following production samples:

993500011 993500012 993500013 993500014 993500015

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020]

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Dichlorodifluoromethane	BMS	ND	0.00792	79.2	47-161			.01mg/L	07/27/99	VKA
	BMSD		0.00824	82.4		4	0-20	.01mg/L	07/27/99	VKA
Chloromethane	BMS	ND	0.00882	88.2	60-148			.01mg/L	07/27/99	VKA
	BMSD		0.00959	95.9		8.4	0-20	.01mg/L	07/27/99	VKA
Vinyl chloride	BMS	ND	0.00913	91.3	71-146			.01mg/L	07/27/99	VKA
	BMSD		0.00957	95.7		4.7	0-20	.01mg/L	07/27/99	VKA
Bromomethane	BMS	ND	0.00981	98.1	48-162			.01mg/L	07/27/99	VKA
	BMSD		0.0103	103		49 ~~200~~	0-20	.01mg/L	07/27/99	VKA
Chloroethane	BMS	ND	0.0113	113	64-163			.01mg/L	07/27/99	VKA
	BMSD		0.0118	118		4.3	0-20	.01mg/L	07/27/99	VKA
Trichlorofluoromethane	BMS	ND	0.00881	88.1	51-131			.01mg/L	07/27/99	VKA
	BMSD		0.00945	94.5		7	0-20	.01mg/L	07/27/99	VKA
1,1-Dichloroethene	BMS	ND	0.0101	101	72-127			.01mg/L	07/27/99	VKA
	BMSD		0.0102	102		.99	0-20	.01mg/L	07/27/99	VKA
Methylene chloride	BMS	ND	0.01	100	71-138			.01mg/L	07/27/99	VKA
	BMSD		0.0101	101		1	0-20	.01mg/L	07/27/99	VKA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	Red Devil Mine 47411

QC Batch	XXX 5731 (63000)	**Prep Method**	SW5030
Original	993500011	**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Carbon disulfide	BMS	ND	0.0153	102	66-130			.015mg/L	07/27/99	VKA
	BMSD		0.0144	96.1		6	0-20	.015mg/L	07/27/99	VKA
trans-1,2-Dichloroethene	BMS	ND	0.00996	99.6	79-126			.01mg/L	07/27/99	VKA
	BMSD		0.0104	104		4.3	0-20	.01mg/L	07/27/99	VKA
1,1-Dichloroethane	BMS	ND	0.00976	97.6	77-125			.01mg/L	07/27/99	VKA
	BMSD		0.0101	101		3.4	0-20	.01mg/L	07/27/99	VKA
2,2-Dichloropropane	BMS	ND	0.00892	89.2	78-132			.01mg/L	07/27/99	VKA
	BMSD		0.00979	97.9		9.3	0-20	.01mg/L	07/27/99	VKA
cis-1,2-Dichloroethene	BMS	ND	0.0106	106	87-128			.01mg/L	07/27/99	VKA
	BMSD		0.0108	108		1.9	0-20	.01mg/L	07/27/99	VKA
2-Butanone (MEK)	BMS	ND	0.0134	89.5	68-132			.015mg/L	07/27/99	VKA
	BMSD		0.0137	91.6		2.3	0-20	.015mg/L	07/27/99	VKA
Bromochloromethane	BMS	ND	0.0103	103	87-127			.01mg/L	07/27/99	VKA
	BMSD		0.0107	107		3.8	0-20	.01mg/L	07/27/99	VKA
Chloroform	BMS	ND	0.01	100	84-125			.01mg/L	07/27/99	VKA
	BMSD		0.0104	104		3.9	0-20	.01mg/L	07/27/99	VKA
1,1,1-Trichloroethane	BMS	ND	0.01	100	79-124			.01mg/L	07/27/99	VKA
	BMSD		0.0104	104		3.9	0-20	.01mg/L	07/27/99	VKA
Carbon tetrachloride	BMS	ND	0.0104	104	70-130			.01mg/L	07/27/99	VKA
	BMSD		0.0106	106		1.9	0-20	.01mg/L	07/27/99	VKA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)	**Prep Method**	SW5030
Original	993500011	**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Benzene	BMS	ND	0.00995	99.5	86-126			.01mg/L	07/27/99	VKA
	BMSD		0.0101	101		1.5	0-20	.01mg/L	07/27/99	VKA
1,2-Dichloroethane	BMS	ND	0.0101	101	82-124			.01mg/L	07/27/99	VKA
	BMSD		0.0106	106		4.8	0-20	.01mg/L	07/27/99	VKA
Trichloroethene	BMS	ND	0.0101	101	83-133			.01mg/L	07/27/99	VKA
	BMSD		0.0104	104		2.9	0-20	.01mg/L	07/27/99	VKA
1,2-Dichloropropane	BMS	ND	0.0106	106	89-132			.01mg/L	07/27/99	VKA
	BMSD		0.0106	106		0	0-20	.01mg/L	07/27/99	VKA
Dibromomethane	BMS	ND	0.0103	103	84-123			.01mg/L	07/27/99	VKA
	BMSD		0.0102	102		.98	0-20	.01mg/L	07/27/99	VKA
Bromodichloromethane	BMS	ND	0.00929	92.9	77-117			.01mg/L	07/27/99	VKA
	BMSD		0.00962	96.2		3.5	0-20	.01mg/L	07/27/99	VKA
2-chloroethylvinyl ether	BMS	ND	ND	0	77-129			.015mg/L	07/27/99	VKA
	BMSD		ND	0			0-20	.015mg/L	07/27/99	VKA
cis-1,3-Dichloropropene	BMS	ND	0.00936	93.6	78-120			.01mg/L	07/27/99	VKA
	BMSD		0.00946	94.6		1.1	0-20	.01mg/L	07/27/99	VKA
Toluene	BMS	ND	0.0102	102	83-130			.01mg/L	07/27/99	VKA
	BMSD		0.0103	103		.98	0-20	.01mg/L	07/27/99	VKA
trans-1,3-Dichloropropene	BMS	ND	0.00894	89.4	71-121			.01mg/L	07/27/99	VKA
	BMSD		0.0093	93		3.9	0-20	.01mg/L	07/27/99	VKA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)	**Prep Method**	SW5030
Original	993500011	**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
1,1,2-Trichloroethane	BMS	ND	0.00961	96.1	86-125			.01mg/L	07/27/99	VKA
	BMSD		0.00984	98.4		2.4	0-20	.01mg/L	07/27/99	VKA
Tetrachloroethene	BMS	ND	0.00974	97.4	82-134			.01mg/L	07/27/99	VKA
	BMSD		0.00986	98.6		1.2	0-20	.01mg/L	07/27/99	VKA
1,3-Dichloropropane	BMS	ND	0.0097	97	86-124			.01mg/L	07/27/99	VKA
	BMSD		0.00995	99.5		2.5	0-20	.01mg/L	07/27/99	VKA
Dibromochloromethane	BMS	ND	0.00971	97.1	81-124			.01mg/L	07/27/99	VKA
	BMSD		0.00991	99.1		2	0-20	.01mg/L	07/27/99	VKA
1,2-Dibromoethane	BMS	ND	0.0102	102	85-124			.01mg/L	07/27/99	VKA
	BMSD		0.0106	106		3.8	0-20	.01mg/L	07/27/99	VKA
Chlorobenzene	BMS	ND	0.00978	97.8	85-120			.01mg/L	07/27/99	VKA
	BMSD		0.01	100		2.2	0-20	.01mg/L	07/27/99	VKA
1,1,1,2-Tetrachloroethane	BMS	ND	0.00931	93.1	78-123			.01mg/L	07/27/99	VKA
	BMSD		0.00954	95.4		2.4	0-20	.01mg/L	07/27/99	VKA
Ethylbenzene	BMS	ND	0.00952	95.2	83-119			.01mg/L	07/27/99	VKA
	BMSD		0.00974	97.4		2.3	0-20	.01mg/L	07/27/99	VKA
P & M -Xylene	BMS	ND	0.0193	96.5	85-122			.02mg/L	07/27/99	VKA
	BMSD		0.0201	101		4.6	0-20	.02mg/L	07/27/99	VKA
o-Xylene	BMS	ND	0.00958	95.8	84-122			.01mg/L	07/27/99	VKA
	BMSD		0.00992	99.2		3.5	0-20	.01mg/L	07/27/99	VKA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)	**Prep Method**	SW5030
Original	993500011	**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Styrene	BMS	ND	0.00978	97.8	79-124			.01mg/L	07/27/99	VKA
	BMSD		0.0101	101		3.2	0-20	.01mg/L	07/27/99	VKA
Bromoform	BMS	ND	0.00845	84.5	71-125			.01mg/L	07/27/99	VKA
	BMSD		0.00866	86.6		2.5	0-20	.01mg/L	07/27/99	VKA
Isopropylbenzene (Cumene)	BMS	ND	0.00935	93.5	84-121			.01mg/L	07/27/99	VKA
	BMSD		0.00967	96.7		3.4	0-20	.01mg/L	07/27/99	VKA
Bromobenzene	BMS	ND	0.00902	90.2	82-124			.01mg/L	07/27/99	VKA
	BMSD		0.00942	94.2		4.3	0-20	.01mg/L	07/27/99	VKA
1,1,2,2-Tetrachloroethane	BMS	ND	0.00894	89.4	78-128			.01mg/L	07/27/99	VKA
	BMSD		0.00934	93.4		4.4	0-20	.01mg/L	07/27/99	VKA
1,2,3-Trichloropropane	BMS	ND	0.00895	89.5	79-125			.01mg/L	07/27/99	VKA
	BMSD		0.00957	95.7		6.7	0-20	.01mg/L	07/27/99	VKA
n-Propylbenzene	BMS	ND	0.00887	88.7	80-123			.01mg/L	07/27/99	VKA
	BMSD		0.00918	91.8		3.4	0-20	.01mg/L	07/27/99	VKA
2-Chlorotoluene	BMS	ND	0.00904	90.4	74-123			.01mg/L	07/27/99	VKA
	BMSD		0.00948	94.8		4.8	0-20	.01mg/L	07/27/99	VKA
4-Chlorotoluene	BMS	ND	0.00884	88.4	81-120			.01mg/L	07/27/99	VKA
	BMSD		0.009	90		1.8	0-20	.01mg/L	07/27/99	VKA
1,3,5-Trimethylbenzene	BMS	ND	0.00905	90.5	81-120			.01mg/L	07/27/99	VKA
	BMSD		0.0093	93		2.7	0-20	.01mg/L	07/27/99	VKA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)	**Prep Method**	SW5030
Original	993500011	**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
tert-Butylbenzene	BMS	ND	0.00916	91.6	83-126			.01mg/L	07/27/99	VKA
	BMSD		0.00941	94.1		2.7	0-20	.01mg/L	07/27/99	VKA
1,2,4-Trimethylbenzene	BMS	ND	0.0095	95	81-121			.01mg/L	07/27/99	VKA
	BMSD		0.00981	98.1		3.2	0-20	.01mg/L	07/27/99	VKA
sec-Butylbenzene	BMS	ND	0.00934	93.4	80-127			.01mg/L	07/27/99	VKA
	BMSD		0.00984	98.4		5.2	0-20	.01mg/L	07/27/99	VKA
1,3-Dichlorobenzene	BMS	ND	0.0088	88	80-122			.01mg/L	07/27/99	VKA
	BMSD		0.00898	89.8		2	0-20	.01mg/L	07/27/99	VKA
4-Isopropyltoluene	BMS	ND	0.00931	93.1	77-128			.01mg/L	07/27/99	VKA
	BMSD		0.0096	96		3.1	0-20	.01mg/L	07/27/99	VKA
1,4-Dichlorobenzene	BMS	ND	0.00884	88.4	80-122			.01mg/L	07/27/99	VKA
	BMSD		0.00922	92.2		4.2	0-20	.01mg/L	07/27/99	VKA
1,2-Dichlorobenzene	BMS	ND	0.0103	103	90-131			.01mg/L	07/27/99	VKA
	BMSD		0.0105	105		1.9	0-20	.01mg/L	07/27/99	VKA
n-Butylbenzene	BMS	ND	0.0103	103	84-135			.01mg/L	07/27/99	VKA
	BMSD		0.0102	102		.98	0-20	.01mg/L	07/27/99	VKA
1,2-Dibromo-3-chloropropane	BMS	ND	0.00942	94.2	65-143			.01mg/L	07/27/99	VKA
	BMSD		0.00997	99.7		5.7	0-20	.01mg/L	07/27/99	VKA
1,2,4-Trichlorobenzene	BMS	ND	0.0103	103	80-142			.01mg/L	07/27/99	VKA
	BMSD		0.0101	101		2	0-20	.01mg/L	07/27/99	VKA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)	**Prep Method**	SW5030
Original	993500011	**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Hexachlorobutadiene	BMS	ND	0.0105	105	65-163			.01mg/L	07/27/99	VKA
	BMSD		0.0101	101		3.9	0-20	.01mg/L	07/27/99	VKA
Naphthalene	BMS	ND	0.011	110	75-145			.01mg/L	07/27/99	VKA
	BMSD		0.0109	109		.91	0-20	.01mg/L	07/27/99	VKA
1,2,3-Trichlorobenzene	BMS	ND	0.0103	103	77-148			.01mg/L	07/27/99	VKA
	BMSD		0.0101	101		2	0-20	.01mg/L	07/27/99	VKA
4-Methyl-2-pentanone (MIBK)	BMS	ND	0.0152	101	68-134			.015mg/L	07/27/99	VKA
	BMSD		0.0152	101		0	0-20	.015mg/L	07/27/99	VKA
2-Hexanone	BMS	ND	0.0139	92.9	60-134			.015mg/L	07/27/99	VKA
	BMSD		0.0138	92.3		.65	0-20	.015mg/L	07/27/99	VKA
Mercury by Cold Vapor	BMS	0.00143	0.00327	92				.002mg/L	07/26/99	F3
	BMSD		0.00332	94.5		2.7		.002mg/L	07/26/99	F3
Aluminum	BMS	ND	1.19	101				1.18mg/L	07/27/99	P2
	BMSD		1.35	115		13		1.18mg/L	07/27/99	P2
Barium	BMS	0.0298	1.22	101				1.18mg/L	07/27/99	P2
	BMSD		1.22	101		0		1.18mg/L	07/27/99	P2
Calcium	BMS	16.2	27.4	95.2				11.8mg/L	07/27/99	P2
	BMSD		27.6	97		1.9		11.8mg/L	07/27/99	P2
Cobalt	BMS	ND	1.17	99.9				1.18mg/L	07/27/99	P2
	BMSD		1.18	100		.1		1.18mg/L	07/27/99	P2

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	Red Devil Mine 47411
QC Batch	XXX 5731 (63000)
Original	993500011
Matrix	Water (Surface, Eff., Ground)
Prep Date	07/23/99 16:30
Analysis Method	SW846 6010B

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Copper	BMS	ND	1.17	99.3				1.18mg/L	07/27/99	P2
	BMSD		1.17	99.4		.1		1.18mg/L	07/27/99	P2
Iron	BMS	0.089	1.24	97.7				1.18mg/L	07/27/99	P2
	BMSD		1.28	102		4.3		1.18mg/L	07/27/99	P2
Potassium	BMS	ND	10.4	88.7				11.8mg/L	07/27/99	P2
	BMSD		10.6	90.4		1.9		11.8mg/L	07/27/99	P2
Magnesium	BMS	10.4	21.6	95.1				11.8mg/L	07/27/99	P2
	BMSD		21.7	96.1		1		11.8mg/L	07/27/99	P2
Manganese	BMS	ND	1.18	100				1.18mg/L	07/27/99	P2
	BMSD		1.18	100		0		1.18mg/L	07/27/99	P2
Sodium	BMS	2.71	14.3	98.3				11.8mg/L	07/27/99	P2
	BMSD		14.4	99.1		.81		11.8mg/L	07/27/99	P2
Nickel	BMS	ND	1.16	98.8				1.18mg/L	07/27/99	P2
	BMSD		1.17	99.6		.81		1.18mg/L	07/27/99	P2
Vanadium	BMS	ND	1.16	98.4				1.18mg/L	07/27/99	P2
	BMSD		1.17	99.5		1.1		1.18mg/L	07/27/99	P2
Zinc	BMS	ND	1.12	94.9				1.18mg/L	07/27/99	P2
	BMSD		1.12	95.2		.32		1.18mg/L	07/27/99	P2
Antimony	BMS	0.366	0.757	115				.341mg/L	07/27/99	F4
	BMSD		0.751	113		1.8		.341mg/L	07/27/99	F4

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	Red Devil Mine 47411
QC Batch	XXX 5731 (63000)
Original	993500011
Matrix	Water (Surface, Eff., Ground)
Prep Date	07/23/99 16:30
Analysis Method	SW846 7060

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Arsenic	BMS	0.116	0.483	108	85-115			.341mg/L	07/27/99	F1
	BMSD		0.514	117		8	0-20	.341mg/L	07/27/99	F1
Beryllium	BMS	ND	0.036	106				.0341mg/L	07/27/99	F2
	BMSD		0.0364	107		.94		.0341mg/L	07/27/99	F2
Cadmium	BMS	ND	0.0336	98.7				.0341mg/L	07/26/99	F2
	BMSD		0.0349	102		3.3		.0341mg/L	07/26/99	F2
Chromium	BMS	ND	0.68	99.7				.682mg/L	07/26/99	F4
	BMSD		0.674	98.8		.91		.682mg/L	07/26/99	F4
Lead	BMS	ND	0.306	89.7	85-115			.341mg/L	07/26/99	F4
	BMSD		0.343	101		11.9	0-20	.341mg/L	07/26/99	F4
Selenium	BMS	ND	0.373	109				.341mg/L	07/27/99	F1
	BMSD		0.362	106		2.8		.341mg/L	07/27/99	F1
Silver	BMS	ND	0.0584	103				.0568mg/L	07/26/99	F2
	BMSD		0.0578	102		.98		.0568mg/L	07/26/99	F2
Thallium	BMS	ND	0.175	103				.17mg/L	07/27/99	F4
	BMSD		0.166	97.3		5.7		.17mg/L	07/27/99	F4
N-Nitrosodimethylamine	BMS	ND	0.0316	30.1	10-42			.105mg/L	07/30/99	SPA
	BMSD		0.0346	32.5		7.7	0-30	.105mg/L	07/30/99	SPA
Pyridine	BMS	ND	0.0263	25	10-35			.105mg/L	07/30/99	SPA
	BMSD		0.0283	26.6		6.2	0-30	.105mg/L	07/30/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)		
Original	993500011	**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aniline	BMS	ND	0.046	43.7	10-81			.105mg/L	07/30/99	SPA
	BMSD		0.0453	42.6		2.5	0-30	.105mg/L	07/30/99	SPA
Phenol	BMS	ND	0.0297	28.2	10-35			.105mg/L	07/30/99	SPA
	BMSD		0.0294	27.6		2.2	0-30	.105mg/L	07/30/99	SPA
Bis(2-Chloroethyl)ether	BMS	ND	0.0495	47	15-85			.105mg/L	07/30/99	SPA
	BMSD		0.051	47.9		1.9	0-30	.105mg/L	07/30/99	SPA
2-Chlorophenol	BMS	ND	0.051	48.5	13-75			.105mg/L	07/30/99	SPA
	BMSD		0.0551	51.8		6.6	0-30	.105mg/L	07/30/99	SPA
1,3-Dichlorobenzene	BMS	ND	0.0353	33.6	10-63			.105mg/L	07/30/99	SPA
	BMSD		0.0382	35.9		6.6	0-30	.105mg/L	07/30/99	SPA
1,4-Dichlorobenzene	BMS	ND	0.0364	34.6	10-65			.105mg/L	07/30/99	SPA
	BMSD		0.0384	36.1		4.2	0-30	.105mg/L	07/30/99	SPA
Benzyl alcohol	BMS	ND	0.0486	46.2	10-71			.105mg/L	07/30/99	SPA
	BMSD		0.0488	45.9		.65	0-30	.105mg/L	07/30/99	SPA
1,2-Dichlorobenzene	BMS	ND	0.038	36.1	10-67			.105mg/L	07/30/99	SPA
	BMSD		0.0403	37.9		4.9	0-30	.105mg/L	07/30/99	SPA
2-Methylphenol (o-Cresol)	BMS	ND	0.0565	53.7	16-71			.105mg/L	07/30/99	SPA
	BMSD		0.0564	53		1.3	0-30	.105mg/L	07/30/99	SPA
bis(2-chloroisopropyl)ether	BMS	ND	0.0503	47.8	13-107			.105mg/L	07/30/99	SPA
	BMSD		0.0507	47.7		.21	0-30	.105mg/L	07/30/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	Red Devil Mine 47411
QC Batch	XXX 5731 (63000)
Original	993500011
Matrix	Water (Surface, Eff., Ground)
Prep Date	07/21/99 09:15
Analysis Method	SW846-8270

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
3&4-Methylphenol (p&m-Cresol)	BMS	ND	0.079	53.6	14-75			.147mg/L	07/30/99	SPA
	BMSD		0.0775	52		3	0-30	.147mg/L	07/30/99	SPA
N-Nitroso-di-n-propylamine	BMS	ND	0.0703	66.8	20-95			.105mg/L	07/30/99	SPA
	BMSD		0.0685	64.4		3.7	0-30	.105mg/L	07/30/99	SPA
Hexachloroethane	BMS	ND	0.0354	33.6	10-62			.105mg/L	07/30/99	SPA
	BMSD		0.0377	35.4		5.2	0-30	.105mg/L	07/30/99	SPA
Nitrobenzene	BMS	ND	0.0517	49.1	18-89			.105mg/L	07/30/99	SPA
	BMSD		0.0526	49.5		.81	0-30	.105mg/L	07/30/99	SPA
Isophorone	BMS	ND	0.0683	64.9	25-97			.105mg/L	07/30/99	SPA
	BMSD		0.0675	63.4		2.3	0-30	.105mg/L	07/30/99	SPA
2-Nitrophenol	BMS	ND	0.0577	54.8	18-86			.105mg/L	07/30/99	SPA
	BMSD		0.0611	57.4		4.6	0-30	.105mg/L	07/30/99	SPA
2,4-Dimethylphenol	BMS	ND	0.0597	56.7	21-91			.105mg/L	07/30/99	SPA
	BMSD		0.0623	58.5		3.1	0-30	.105mg/L	07/30/99	SPA
Benzoic acid	BMS	ND	ND	0	10-32			.147mg/L	07/30/99	SPA
	BMSD		ND	0			0-30	.147mg/L	07/30/99	SPA
Bis(2-Chloroethoxy)methane	BMS	ND	0.0596	56.6	20-95			.105mg/L	07/30/99	SPA
	BMSD		0.0598	56.3		.53	0-30	.105mg/L	07/30/99	SPA
2,4-Dichlorophenol	BMS	ND	0.0592	56.2	21-85			.105mg/L	07/30/99	SPA
	BMSD		0.0619	58.2		3.5	0-30	.105mg/L	07/30/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)		
Original	993500011	**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
1,2,4-Trichlorobenzene	BMS	ND	0.0436	41.4	10-72			.105mg/L	07/30/99	SPA
	BMSD		0.0454	42.7		3.1	0-30	.105mg/L	07/30/99	SPA
Naphthalene	BMS	ND	0.053	50.4	12-82			.105mg/L	07/30/99	SPA
	BMSD		0.0543	51		1.2	0-30	.105mg/L	07/30/99	SPA
4-Chloroaniline	BMS	ND	0.0689	65.4	24-88			.105mg/L	07/30/99	SPA
	BMSD		0.0676	63.6		2.8	0-30	.105mg/L	07/30/99	SPA
Hexachlorobutadiene	BMS	ND	0.0415	39.4	10-70			.105mg/L	07/30/99	SPA
	BMSD		0.0433	40.7		3.2	0-30	.105mg/L	07/30/99	SPA
4-Chloro-3-methylphenol	BMS	ND	0.0761	72.3	25-92			.105mg/L	07/30/99	SPA
	BMSD		0.0719	67.6		6.7	0-30	.105mg/L	07/30/99	SPA
2-Methylnaphthalene	BMS	ND	0.0606	57.6	13-82			.105mg/L	07/30/99	SPA
	BMSD		0.0604	56.8		1.4	0-30	.105mg/L	07/30/99	SPA
Hexachlorocyclopentadiene	BMS	ND	0.0423	40.2	10-74			.105mg/L	07/30/99	SPA
	BMSD		0.0463	43.5		7.9	0-30	.105mg/L	07/30/99	SPA
2,4,6-Trichlorophenol	BMS	ND	0.081	76.9	30-95			.105mg/L	07/30/99	SPA
	BMSD		0.0798	75		2.5	0-30	.105mg/L	07/30/99	SPA
2,4,5-Trichlorophenol	BMS	ND	0.0822	78.1	30-92			.105mg/L	07/30/99	SPA
	BMSD		0.0826	77.7		.51	0-30	.105mg/L	07/30/99	SPA
2-Chloronaphthalene	BMS	ND	0.0676	64.2	17-88			.105mg/L	07/30/99	SPA
	BMSD		0.0676	63.6		.94	0-30	.105mg/L	07/30/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	Red Devil Mine 47411
QC Batch	XXX 5731 (63000)
Original	993500011
Matrix	Water (Surface, Eff., Ground)
Prep Date	07/21/99 09:15
Analysis Method	SW846-8270

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
2-Nitroaniline	BMS	ND	0.0932	88.6	38-107			.105mg/L	07/30/99	SPA
	BMSD		0.0876	82.4		7.3	0-30	.105mg/L	07/30/99	SPA
Dimethylphthalate	BMS	ND	0.0866	82.3	38-100			.105mg/L	07/30/99	SPA
	BMSD		0.0832	78.3		5	0-30	.105mg/L	07/30/99	SPA
2,6-Dinitrotoluene	BMS	ND	0.0885	84.1	41-107			.105mg/L	07/30/99	SPA
	BMSD		0.0835	78.5		6.9	0-30	.105mg/L	07/30/99	SPA
Acenaphthylene	BMS	ND	0.0776	73.8	27-97			.105mg/L	07/30/99	SPA
	BMSD		0.0758	71.2		3.6	0-30	.105mg/L	07/30/99	SPA
3-Nitroaniline	BMS	ND	0.0878	83.4	39-100			.105mg/L	07/30/99	SPA
	BMSD		0.0855	80.4		3.7	0-30	.105mg/L	07/30/99	SPA
Acenaphthene	BMS	ND	0.0778	73.9	26-95			.105mg/L	07/30/99	SPA
	BMSD		0.0767	72.1		2.5	0-30	.105mg/L	07/30/99	SPA
2,4-Dinitrophenol	BMS	ND	0.146	77.3	41-109			.189mg/L	07/30/99	SPA
	BMSD		0.147	76.8		.65	0-30	.189mg/L	07/30/99	SPA
4-Nitrophenol	BMS	ND	ND	0	10-35			.147mg/L	07/30/99	SPA
	BMSD		ND	0			0-30	.147mg/L	07/30/99	SPA
2,4-Dinitrotoluene	BMS	ND	0.0882	83.8	43-110			.105mg/L	07/30/99	SPA
	BMSD		0.0845	79.4		5.4	0-30	.105mg/L	07/30/99	SPA
Dibenzofuran	BMS	ND	0.0827	78.6	29-97			.105mg/L	07/30/99	SPA
	BMSD		0.0796	74.9		4.8	0-30	.105mg/L	07/30/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)		
Original	993500011	**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Diethylphthalate	BMS	ND	0.089	84.6	41-105			.105mg/L	07/30/99	SPA
	BMSD		0.0863	81.1		4.2	0-30	.105mg/L	07/30/99	SPA
Fluorene	BMS	ND	0.0914	86.9	34-98			.105mg/L	07/30/99	SPA
	BMSD		0.0858	80.7		7.4	0-30	.105mg/L	07/30/99	SPA
4-Chlorophenyl-phenylether	BMS	ND	0.0876	83.2	30-95			.105mg/L	07/30/99	SPA
	BMSD		0.0839	78.9		5.3	0-30	.105mg/L	07/30/99	SPA
4-Nitroaniline	BMS	ND	0.1	95.1	42-106			.105mg/L	07/30/99	SPA
	BMSD		0.0974	91.5		3.9	0-30	.105mg/L	07/30/99	SPA
2-Methyl-4,6-dinitrophenol	BMS	ND	0.173	91.2	41-130			.189mg/L	07/30/99	SPA
	BMSD		0.169	88.3		3.2	0-30	.189mg/L	07/30/99	SPA
N-Nitrosodiphenylamine	BMS	ND	0.0946	89.9	43-110			.105mg/L	07/30/99	SPA
	BMSD		0.0844	79.3		12.5	0-30	.105mg/L	07/30/99	SPA
Azobenzene	BMS	ND	0.0844	80.2	32-105			.105mg/L	07/30/99	SPA
	BMSD		0.0813	76.4		4.9	0-30	.105mg/L	07/30/99	SPA
4-Bromophenyl-phenylether	BMS	ND	0.0808	76.8	33-89			.105mg/L	07/30/99	SPA
	BMSD		0.0769	72.3		6	0-30	.105mg/L	07/30/99	SPA
Hexachlorobenzene	BMS	ND	0.0922	87.6	39-105			.105mg/L	07/30/99	SPA
	BMSD		0.0859	80.7		8.2	0-30	.105mg/L	07/30/99	SPA
Pentachlorophenol	BMS	ND	0.116	79	40-104			.147mg/L	07/30/99	SPA
	BMSD		0.115	77.4		2	0-30	.147mg/L	07/30/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)		
Original	993500011	**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Phenanthrene	BMS	ND	0.0855	81.3	41-108			.105mg/L	07/30/99	SPA
	BMSD		0.0833	78.3		3.8	0-30	.105mg/L	07/30/99	SPA
Anthracene	BMS	ND	0.087	82.7	42-107			.105mg/L	07/30/99	SPA
	BMSD		0.0831	78.1		5.7	0-30	.105mg/L	07/30/99	SPA
Di-n-butylphthalate	BMS	ND	0.0927	88.1	43-113			.105mg/L	07/30/99	SPA
	BMSD		0.088	82.7		6.3	0-30	.105mg/L	07/30/99	SPA
Fluoranthene	BMS	ND	0.0865	82.1	46-111			.105mg/L	07/30/99	SPA
	BMSD		0.0848	79.7		3	0-30	.105mg/L	07/30/99	SPA
Pyrene	BMS	ND	0.101	95.6	44-119			.105mg/L	07/30/99	SPA
	BMSD		0.0953	89.6		6.5	0-30	.105mg/L	07/30/99	SPA
Butylbenzylphthalate	BMS	ND	0.106	101	47-121			.105mg/L	07/30/99	SPA
	BMSD		0.101	95.3		5.8	0-30	.105mg/L	07/30/99	SPA
3,3-Dichlorobenzidine	BMS	ND	0.0672	63.8	38-111			.105mg/L	07/30/99	SPA
	BMSD		0.0706	66.4		4	0-30	.105mg/L	07/30/99	SPA
Benzo(a)Anthracene	BMS	ND	0.0889	84.5	46-117			.105mg/L	07/30/99	SPA
	BMSD		0.0855	80.4		5	0-30	.105mg/L	07/30/99	SPA
Chrysene	BMS	ND	0.0906	86.1	46-119			.105mg/L	07/30/99	SPA
	BMSD		0.0908	85.4		.82	0-30	.105mg/L	07/30/99	SPA
bis(2-Ethylhexyl)phthalate	BMS	ND	0.103	97.9	44-116			.105mg/L	07/30/99	SPA
	BMSD		0.102	95.6		2.4	0-30	.105mg/L	07/30/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)		
Original	993500011	**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
di-n-Octylphthalate	BMS	ND	0.102	97.1	35-124			.105mg/L	07/30/99	SPA
	BMSD		0.0965	90.8		6.7	0-30	.105mg/L	07/30/99	SPA
Benzo[b]Fluoranthene	BMS	ND	0.0948	90	40-127			.105mg/L	07/30/99	SPA
	BMSD		0.0933	87.7		2.6	0-30	.105mg/L	07/30/99	SPA
Benzo[k]fluoranthene	BMS	ND	0.0937	89	37-123			.105mg/L	07/30/99	SPA
	BMSD		0.0874	82.2		7.9	0-30	.105mg/L	07/30/99	SPA
Benzo[a]pyrene	BMS	ND	0.0903	85.8	38-127			.105mg/L	07/30/99	SPA
	BMSD		0.0869	81.7		4.9	0-30	.105mg/L	07/30/99	SPA
Indeno[1,2,3-c,d] pyrene	BMS	ND	0.0874	83	26-145			.105mg/L	07/30/99	SPA
	BMSD		0.0868	81.6		1.7	0-30	.105mg/L	07/30/99	SPA
Dibenzo[a,h]anthracene	BMS	ND	0.0847	80.4	28-143			.105mg/L	07/30/99	SPA
	BMSD		0.0838	78.8		2	0-30	.105mg/L	07/30/99	SPA
Benzo[g,h,i]perylene	BMS	ND	0.0881	83.7	27-146			.105mg/L	07/30/99	SPA
	BMSD		0.0853	80.2		4.3	0-30	.105mg/L	07/30/99	SPA
gamma-Chlordane	BMS	ND	0.168	79	47-133			.213ug/L	07/23/99	SJR
	BMSD		0.175	83		4.9	0-25	.213ug/L	07/23/99	SJR
alpha-Chlordane	BMS	ND	0.17	80	50-143			.213ug/L	07/23/99	SJR
	BMSD		0.179	85		6.1	0-25	.213ug/L	07/23/99	SJR
alpha-BHC	BMS	ND	0.145	68	41-129			.213ug/L	07/23/99	SJR
	BMSD		0.171	81		17.4	0-25	.213ug/L	07/23/99	SJR

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5731 (63000)		
Original	993500011	**Prep Date**	07/21/99 10:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8081A Pesticides

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
beta-BHC	BMS	ND	0.174	82	45-149			.213ug/L	07/23/99	SJR
	BMSD		0.185	88		7.1	0-25	.213ug/L	07/23/99	SJR
gamma-BHC (Lindane)	BMS	ND	0.166	78	45-137			.213ug/L	07/23/99	SJR
	BMSD		0.177	84		7.4	0-25	.213ug/L	07/23/99	SJR
delta-BHC	BMS	ND	0.179	84	46-146			.213ug/L	07/23/99	SJR
	BMSD		0.187	89		5.8	0-25	.213ug/L	07/23/99	SJR
Heptachlor	BMS	ND	0.174	82	48-134			.213ug/L	07/23/99	SJR
	BMSD		0.185	88		7.1	0-25	.213ug/L	07/23/99	SJR
Aldrin	BMS	ND	0.166	78	43-139			.213ug/L	07/23/99	SJR
	BMSD		0.181	86		9.8	0-25	.213ug/L	07/23/99	SJR
Heptachlor epoxide	BMS	ND	0.177	83	48-142			.213ug/L	07/23/99	SJR
	BMSD		0.183	87		4.7	0-25	.213ug/L	07/23/99	SJR
Endosulfan I	BMS	ND	0.191	90	49-135			.213ug/L	07/23/99	SJR
	BMSD		0.2	95		5.4	0-25	.213ug/L	07/23/99	SJR
4,4'-DDE	BMS	ND	0.174	82	47-140			.213ug/L	07/23/99	SJR
	BMSD		0.179	85		3.6	0-25	.213ug/L	07/23/99	SJR
Dieldrin	BMS	ND	0.164	77	47-135			.213ug/L	07/23/99	SJR
	BMSD		0.168	80		3.8	0-25	.213ug/L	07/23/99	SJR
Endrin	BMS	ND	0.2	94	58-147			.213ug/L	07/23/99	SJR
	BMSD		0.206	98		4.2	0-25	.213ug/L	07/23/99	SJR

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	Red Devil Mine 47411			
QC Batch	XXX 5731 (63000)			
Original	993500011	**Prep Date**	07/21/99 10:00	
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8081A	Pesticides

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Endosulfan II	BMS	ND	0.17	80	55-134			.213ug/L	07/23/99	SJR
	BMSD		0.179	85		6.1	0-25	.213ug/L	07/23/99	SJR
4,4'-DDD	BMS	ND	0.202	95	43-159			.213ug/L	07/23/99	SJR
	BMSD		0.2	95		0	0-25	.213ug/L	07/23/99	SJR
Endrin aldehyde	BMS	ND	0.174	82	39-141			.213ug/L	07/23/99	SJR
	BMSD		0.181	86		4.8	0-25	.213ug/L	07/23/99	SJR
4,4'-DDT	BMS	ND	0.198	93	50-141			.213ug/L	07/23/99	SJR
	BMSD		0.2	95		2.1	0-25	.213ug/L	07/23/99	SJR
Endosulfan sulfate	BMS	ND	0.355	167	51-160			.213ug/L	07/23/99	SJR
	BMSD		0.223	106		44.7	0-25	.213ug/L	07/23/99	SJR
Endrin ketone	BMS	ND	0.187	88	54-138			.213ug/L	07/23/99	SJR
	BMSD		0.196	93		5.5	0-25	.213ug/L	07/23/99	SJR
Methoxychlor	BMS	ND	0.234	110	53-159			.213ug/L	07/23/99	SJR
	BMSD		0.238	113		2.7	0-25	.213ug/L	07/23/99	SJR
Aroclor-1016	BMS	ND	1.98	93.2	45-109			2.13ug/L	07/23/99	SHR
	BMSD		2.04	96.8		3.8	0-25	2.13ug/L	07/23/99	SHR
Aroclor-1260	BMS	ND	1.87	87.9	45-109			2.13ug/L	07/23/99	SHR
	BMSD		1.94	92		4.6	0-25	2.13ug/L	07/23/99	SHR
Aroclor-1016	BMS	ND	1.98	93.2	45-109			2.13ug/L	07/23/99	SHR
	BMSD		2.04	96.8		3.8	0-25	2.13ug/L	07/23/99	SHR

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	Red Devil Mine 47411			
QC Batch	XXX 5731 (63000)			
Original	993500011	**Prep Date**	07/21/99 10:00	
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846 8082	PCB's

QC results for Billable Matrix Spike [993500019] - Billable Matrix Spike Dup. [993500020] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aroclor-1260	BMS	ND	1.87	87.9	45-109			2.13ug/L	07/23/99	SHR
	BMSD		1.94	92		4.6	0-25	2.13ug/L	07/23/99	SHR

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	SPT 2821 (63039)		
Original			
Matrix	Soil/Solid	**Analysis Method**	SM18 2540G

QC results affect the following production samples:

993500009 993500010

QC results for Method Blank [246922]

Run Instrument:

Parameter	Analyzed	Result	PQL	Units
Total Solids	07/21/99	99.9		%

F-701

CT&E Environmental Services Inc.

Client Harding Lawson & Assoc
Workorder Red Devil Mine 47411

QC Batch SPT 2821 (63039)
Original 992776004
Matrix Soil/Solid

Analysis Method SM18 2540G

QC results affect the following production samples:

993500009 993500010

QC results for Duplicate [246923]

Parameter	Original Result	QC Result	RPD	RPD Limits	Analyzed	Instru ID
Total Solids	94.8	95.2	.43		07/21/99	

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	Red Devil Mine 47411
QC Batch	SPT 2829 (63197)
Original Matrix	Soil/Solid
Analysis Method	SM18 2540G

QC results affect the following production samples:

993500001	993500002	993500003	993500004	993500005
993500006	993500007	993500008		

QC results for Method Blank [247537]

Run Instrument:

Parameter	Analyzed	Result	PQL	Units
Total Solids	07/23/99	99.9		%

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	Red Devil Mine 47411
QC Batch	SPT 2829 (63197)
Original	993500001
Matrix	Soil/Solid
Analysis Method	SM18 2540G

QC results affect the following production samples:

993500001	993500002	993500003	993500004	993500005
993500006	993500007	993500008		

QC results for Duplicate [247538]

Parameter	Original Result	QC Result	RPD	RPD Limits	Analyzed	Instru ID
Total Solids	88	83.8	4.8		07/23/99	

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results affect the following production samples:

993500011 993500012 993500013 993500018 993500019
993500020

QC results for Method Blank [248790]

Run Instrument: HP 5890 Series II MS3 VKA

Parameter	Analyzed	Result	PQL	Units
Dichlorodifluoromethane	07/27/99	0.0010 U	0.0010	mg/L
Chloromethane	07/27/99	0.0010 U	0.0010	mg/L
Vinyl chloride	07/27/99	0.0010 U	0.0010	mg/L
Bromomethane	07/27/99	0.010 U	0.010	mg/L
Chloroethane	07/27/99	0.010 U	0.010	mg/L
Trichlorofluoromethane	07/27/99	0.0010 U	0.0010	mg/L
1,1-Dichloroethene	07/27/99	0.0010 U	0.0010	mg/L
Methylene chloride	07/27/99	0.0050 U	0.0050	mg/L
Carbon disulfide	07/27/99	0.010 U	0.010	mg/L
trans-1,2-Dichloroethene	07/27/99	0.0010 U	0.0010	mg/L
1,1-Dichloroethane	07/27/99	0.0010 U	0.0010	mg/L
2,2-Dichloropropane	07/27/99	0.0010 U	0.0010	mg/L
cis-1,2-Dichloroethene	07/27/99	0.0010 U	0.0010	mg/L
2-Butanone (MEK)	07/27/99	0.010 U	0.010	mg/L
Bromochloromethane	07/27/99	0.0010 U	0.0010	mg/L
Chloroform	07/27/99	0.0010 U	0.0010	mg/L
1,1,1-Trichloroethane	07/27/99	0.0010 U	0.0010	mg/L

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Method Blank [248790] (continued)

Run Instrument: HP 5890 Series II MS3 VKA

Parameter	Analyzed	Result	PQL	Units
Carbon tetrachloride	07/27/99	0.0010 U	0.0010	mg/L
Benzene	07/27/99	0.0010 U	0.0010	mg/L
1,2-Dichloroethane	07/27/99	0.0010 U	0.0010	mg/L
Trichloroethene	07/27/99	0.0010 U	0.0010	mg/L
1,2-Dichloropropane	07/27/99	0.0010 U	0.0010	mg/L
Dibromomethane	07/27/99	0.0010 U	0.0010	mg/L
Bromodichloromethane	07/27/99	0.0010 U	0.0010	mg/L
2-chloroethylvinyl ether	07/27/99	0.010 U	0.010	mg/L
cis-1,3-Dichloropropene	07/27/99	0.0010 U	0.0010	mg/L
Toluene	07/27/99	0.0010 U	0.0010	mg/L
trans-1,3-Dichloropropene	07/27/99	0.0010 U	0.0010	mg/L
1,1,2-Trichloroethane	07/27/99	0.0010 U	0.0010	mg/L
Tetrachloroethene	07/27/99	0.0010 U	0.0010	mg/L
1,3-Dichloropropane	07/27/99	0.0010 U	0.0010	mg/L
Dibromochloromethane	07/27/99	0.0010 U	0.0010	mg/L
1,2-Dibromoethane	07/27/99	0.0010 U	0.0010	mg/L
Chlorobenzene	07/27/99	0.0010 U	0.0010	mg/L
1,1,1,2-Tetrachloroethane	07/27/99	0.0010 U	0.0010	mg/L
Ethylbenzene	07/27/99	0.0010 U	0.0010	mg/L
P & M -Xylene	07/27/99	0.0010 U	0.0010	mg/L
o-Xylene	07/27/99	0.0010 U	0.0010	mg/L

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Method Blank [248790] (continued)

Run Instrument: HP 5890 Series II MS3 VKA

Parameter	Analyzed	Result	PQL	Units
Styrene	07/27/99	0.0010 U	0.0010	mg/L
Bromoform	07/27/99	0.0010 U	0.0010	mg/L
Isopropylbenzene (Cumene)	07/27/99	0.0010 U	0.0010	mg/L
Bromobenzene	07/27/99	0.0010 U	0.0010	mg/L
1,1,2,2-Tetrachloroethane	07/27/99	0.0010 U	0.0010	mg/L
1,2,3-Trichloropropane	07/27/99	0.0010 U	0.0010	mg/L
n-Propylbenzene	07/27/99	0.0010 U	0.0010	mg/L
2-Chlorotoluene	07/27/99	0.0010 U	0.0010	mg/L
4-Chlorotoluene	07/27/99	0.0010 U	0.0010	mg/L
1,3,5-Trimethylbenzene	07/27/99	0.0010 U	0.0010	mg/L
tert-Butylbenzene	07/27/99	0.0010 U	0.0010	mg/L
1,2,4-Trimethylbenzene	07/27/99	0.0010 U	0.0010	mg/L
sec-Butylbenzene	07/27/99	0.0010 U	0.0010	mg/L
1,3-Dichlorobenzene	07/27/99	0.0010 U	0.0010	mg/L
4-Isopropyltoluene	07/27/99	0.0010 U	0.0010	mg/L
1,4-Dichlorobenzene	07/27/99	0.0010 U	0.0010	mg/L
1,2-Dichlorobenzene	07/27/99	0.0010 U	0.0010	mg/L
n-Butylbenzene	07/27/99	0.0010 U	0.0010	mg/L
1,2-Dibromo-3-chloropropane	07/27/99	0.0010 U	0.0010	mg/L
1,2,4-Trichlorobenzene	07/27/99	0.0010 U	0.0010	mg/L
Hexachlorobutadiene	07/27/99	0.0010 U	0.0010	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Method Blank [248790] (continued)

Run Instrument: HP 5890 Series II MS3 VKA

Parameter	Analyzed	Result	PQL	Units
Naphthalene	07/27/99	0.0010 U	0.0010	mg/L
1,2,3-Trichlorobenzene	07/27/99	0.0010 U	0.0010	mg/L
4-Methyl-2-pentanone (MIBK)	07/27/99	0.010 U	0.010	mg/L
2-Hexanone	07/27/99	0.010 U	0.010	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results affect the following production samples:

993500011 993500012 993500013 993500018 993500019
993500020

QC results for Lab Check Standard [248791] - Lab Check Standard Duplicate [248792]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Dichlorodifluoromethane	LCS	0.00887	88.7	47-161			.01mg/L	07/27/99	VKA
	LCSD	0.00707	70.7		22.6	0-20	.01mg/L	07/27/99	VKA
Chloromethane	LCS	0.00852	85.2	60-148			.01mg/L	07/27/99	VKA
	LCSD	0.00803	80.3		5.9	0-20	.01mg/L	07/27/99	VKA
Vinyl chloride	LCS	0.00946	94.6	71-146			.01mg/L	07/27/99	VKA
	LCSD	0.00903	90.3		4.7	0-20	.01mg/L	07/27/99	VKA
Bromomethane	LCS	0.0102	102	48-162			.01mg/L	07/27/99	VKA
	LCSD	0.00997 NO	99.7		2.3 ~~200~~	0-20	.01mg/L	07/27/99	VKA
Chloroethane	LCS	0.00922 NO	92.2	64-163			.01mg/L	07/27/99	VKA
	LCSD	0.0108	108		15.8 ~~200~~	0-20	.01mg/L	07/27/99	VKA
Trichlorofluoromethane	LCS	0.00943	94.3	51-131			.01mg/L	07/27/99	VKA
	LCSD	0.00869	86.9		8.2	0-20	.01mg/L	07/27/99	VKA
1,1-Dichloroethene	LCS	0.0101	101	72-127			.01mg/L	07/27/99	VKA
	LCSD	0.00984	98.4		2.6	0-20	.01mg/L	07/27/99	VKA
Methylene chloride	LCS	0.00975	97.5	71-138			.01mg/L	07/27/99	VKA
	LCSD	0.01	100		2.5	0-20	.01mg/L	07/27/99	VKA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [248791] - Lab Check Standard Duplicate [248792] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Carbon disulfide	LCS	0.0145	96.6	66-130			.015mg/L	07/27/99	VKA
	LCSD	0.0143	95.3		1.4	0-20	.015mg/L	07/27/99	VKA
trans-1,2-Dichloroethene	LCS	0.0102	102	79-126			.01mg/L	07/27/99	VKA
	LCSD	0.0103	103		.98	0-20	.01mg/L	07/27/99	VKA
1,1-Dichloroethane	LCS	0.00984	98.4	77-125			.01mg/L	07/27/99	VKA
	LCSD	0.01	100		1.6	0-20	.01mg/L	07/27/99	VKA
2,2-Dichloropropane	LCS	0.00913	91.3	78-132			.01mg/L	07/27/99	VKA
	LCSD	0.00986	98.6		7.7	0-20	.01mg/L	07/27/99	VKA
cis-1,2-Dichloroethene	LCS	0.0106	106	87-128			.01mg/L	07/27/99	VKA
	LCSD	0.0106	106		0	0-20	.01mg/L	07/27/99	VKA
2-Butanone (MEK)	LCS	0.0136	90.9	68-132			.015mg/L	07/27/99	VKA
	LCSD	0.0145	96.5		6	0-20	.015mg/L	07/27/99	VKA
Bromochloromethane	LCS	0.0105	105	87-127			.01mg/L	07/27/99	VKA
	LCSD	0.0109	109		3.7	0-20	.01mg/L	07/27/99	VKA
Chloroform	LCS	0.00986	98.6	84-125			.01mg/L	07/27/99	VKA
	LCSD	0.0102	102		3.4	0-20	.01mg/L	07/27/99	VKA
1,1,1-Trichloroethane	LCS	0.01	100	79-124			.01mg/L	07/27/99	VKA
	LCSD	0.01	100		0	0-20	.01mg/L	07/27/99	VKA
Carbon tetrachloride	LCS	0.0106	106	70-130			.01mg/L	07/27/99	VKA
	LCSD	0.0105	105		.95	0-20	.01mg/L	07/27/99	VKA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [248791] - Lab Check Standard Duplicate [248792] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Benzene	LCS	0.00977	97.7	86-126			.01mg/L	07/27/99	VKA
	LCSD	0.0102	102		4.3	0-20	.01mg/L	07/27/99	VKA
1,2-Dichloroethane	LCS	0.01	100	82-124			.01mg/L	07/27/99	VKA
	LCSD	0.0103	103		3	0-20	.01mg/L	07/27/99	VKA
Trichloroethene	LCS	0.0101	101	83-133			.01mg/L	07/27/99	VKA
	LCSD	0.0103	103		2	0-20	.01mg/L	07/27/99	VKA
1,2-Dichloropropane	LCS	0.0103	103	89-132			.01mg/L	07/27/99	VKA
	LCSD	0.0106	106		2.9	0-20	.01mg/L	07/27/99	VKA
Dibromomethane	LCS	0.01	100	84-123			.01mg/L	07/27/99	VKA
	LCSD	0.0104	104		3.9	0-20	.01mg/L	07/27/99	VKA
Bromodichloromethane	LCS	0.00916	91.6	77-117			.01mg/L	07/27/99	VKA
	LCSD	0.00947	94.7		3.3	0-20	.01mg/L	07/27/99	VKA
2-chloroethylvinyl ether	LCS	0.0132	87.7	77-129			.015mg/L	07/27/99	VKA
	LCSD	0.0142	94.7		7.7	0-20	.015mg/L	07/27/99	VKA
cis-1,3-Dichloropropene	LCS	0.00916	91.6	78-120			.01mg/L	07/27/99	VKA
	LCSD	0.00966	96.6		5.3	0-20	.01mg/L	07/27/99	VKA
Toluene	LCS	0.00984	98.4	83-130			.01mg/L	07/27/99	VKA
	LCSD	0.0102	102		3.6	0-20	.01mg/L	07/27/99	VKA
trans-1,3-Dichloropropene	LCS	0.00888	88.8	71-121			.01mg/L	07/27/99	VKA
	LCSD	0.0095	95		6.7	0-20	.01mg/L	07/27/99	VKA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [248791] - Lab Check Standard Duplicate [248792] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
1,1,2-Trichloroethane	LCS	0.00948	94.8	86-125			.01mg/L	07/27/99	VKA
	LCSD	0.01	100		5.3	0-20	.01mg/L	07/27/99	VKA
Tetrachloroethene	LCS	0.0101	101	82-134			.01mg/L	07/27/99	VKA
	LCSD	0.0102	102		.99	0-20	.01mg/L	07/27/99	VKA
1,3-Dichloropropane	LCS	0.00965	96.5	86-124			.01mg/L	07/27/99	VKA
	LCSD	0.00982	98.2		1.7	0-20	.01mg/L	07/27/99	VKA
Dibromochloromethane	LCS	0.01	100	81-124			.01mg/L	07/27/99	VKA
	LCSD	0.0101	101		1	0-20	.01mg/L	07/27/99	VKA
1,2-Dibromoethane	LCS	0.0103	103	85-124			.01mg/L	07/27/99	VKA
	LCSD	0.0105	105		1.9	0-20	.01mg/L	07/27/99	VKA
Chlorobenzene	LCS	0.00971	97.1	85-120			.01mg/L	07/27/99	VKA
	LCSD	0.00998	99.8		2.7	0-20	.01mg/L	07/27/99	VKA
1,1,1,2-Tetrachloroethane	LCS	0.00928	92.8	78-123			.01mg/L	07/27/99	VKA
	LCSD	0.00942	94.2		1.5	0-20	.01mg/L	07/27/99	VKA
Ethylbenzene	LCS	0.00944	94.4	83-119			.01mg/L	07/27/99	VKA
	LCSD	0.00952	95.2		.84	0-20	.01mg/L	07/27/99	VKA
P & M -Xylene	LCS	0.0192	96	85-122			.02mg/L	07/27/99	VKA
	LCSD	0.0198	99		3.1	0-20	.02mg/L	07/27/99	VKA
o-Xylene	LCS	0.00954	95.4	84-122			.01mg/L	07/27/99	VKA
	LCSD	0.00969	96.9		1.6	0-20	.01mg/L	07/27/99	VKA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [248791] - Lab Check Standard Duplicate [248792] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Styrene	LCS	0.00982	98.2	79-124			.01mg/L	07/27/99	VKA
	LCSD	0.0101	101		2.8	0-20	.01mg/L	07/27/99	VKA
Bromoform	LCS	0.0086	86	71-125			.01mg/L	07/27/99	VKA
	LCSD	0.00896	89.6		4.1	0-20	.01mg/L	07/27/99	VKA
Isopropylbenzene (Cumene)	LCS	0.0095	95	84-121			.01mg/L	07/27/99	VKA
	LCSD	0.00948	94.8		.21	0-20	.01mg/L	07/27/99	VKA
Bromobenzene	LCS	0.00946	94.6	82-124			.01mg/L	07/27/99	VKA
	LCSD	0.00954	95.4		.84	0-20	.01mg/L	07/27/99	VKA
1,1,2,2-Tetrachloroethane	LCS	0.00899	89.9	78-128			.01mg/L	07/27/99	VKA
	LCSD	0.00911	91.1		1.3	0-20	.01mg/L	07/27/99	VKA
1,2,3-Trichloropropane	LCS	0.0091	91	79-125			.01mg/L	07/27/99	VKA
	LCSD	0.0092	92		1.1	0-20	.01mg/L	07/27/99	VKA
n-Propylbenzene	LCS	0.00896	89.6	80-123			.01mg/L	07/27/99	VKA
	LCSD	0.0091	91		1.6	0-20	.01mg/L	07/27/99	VKA
2-Chlorotoluene	LCS	0.0092	92	74-123			.01mg/L	07/27/99	VKA
	LCSD	0.00966	96.6		4.9	0-20	.01mg/L	07/27/99	VKA
4-Chlorotoluene	LCS	0.00876	87.6	81-120			.01mg/L	07/27/99	VKA
	LCSD	0.00956	95.6		8.7	0-20	.01mg/L	07/27/99	VKA
1,3,5-Trimethylbenzene	LCS	0.0093	93	81-120			.01mg/L	07/27/99	VKA
	LCSD	0.00996	99.6		6.9	0-20	.01mg/L	07/27/99	VKA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [248791] - Lab Check Standard Duplicate [248792] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
tert-Butylbenzene	LCS	0.00941	94.1	83-126			.01mg/L	07/27/99	VKA
	LCSD	0.00963	96.3		2.3	0-20	.01mg/L	07/27/99	VKA
1,2,4-Trimethylbenzene	LCS	0.00953	95.3	81-121			.01mg/L	07/27/99	VKA
	LCSD	0.0092	92		3.5	0-20	.01mg/L	07/27/99	VKA
sec-Butylbenzene	LCS	0.00976	97.6	80-127			.01mg/L	07/27/99	VKA
	LCSD	0.00967	96.7		.93	0-20	.01mg/L	07/27/99	VKA
1,3-Dichlorobenzene	LCS	0.00926	92.6	80-122			.01mg/L	07/27/99	VKA
	LCSD	0.0092	92		.65	0-20	.01mg/L	07/27/99	VKA
4-Isopropyltoluene	LCS	0.00955	95.5	77-128			.01mg/L	07/27/99	VKA
	LCSD	0.00969	96.9		1.5	0-20	.01mg/L	07/27/99	VKA
1,4-Dichlorobenzene	LCS	0.00928	92.8	80-122			.01mg/L	07/27/99	VKA
	LCSD	0.0096	96		3.4	0-20	.01mg/L	07/27/99	VKA
1,2-Dichlorobenzene	LCS	0.01	100	90-131			.01mg/L	07/27/99	VKA
	LCSD	0.0101	101		1	0-20	.01mg/L	07/27/99	VKA
n-Butylbenzene	LCS	0.00999	99.9	84-135			.01mg/L	07/27/99	VKA
	LCSD	0.0101	101		1.1	0-20	.01mg/L	07/27/99	VKA
1,2-Dibromo-3-chloropropane	LCS	0.00912	91.2	65-143			.01mg/L	07/27/99	VKA
	LCSD	0.00941	94.1		3.1	0-20	.01mg/L	07/27/99	VKA
1,2,4-Trichlorobenzene	LCS	0.0104	104	80-142			.01mg/L	07/27/99	VKA
	LCSD	0.0105	105		.96	0-20	.01mg/L	07/27/99	VKA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	VXX 5407 (63433)	**Prep Method**	SW5030
Original		**Prep Date**	07/27/99 09:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [248791] - Lab Check Standard Duplicate [248792] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Hexachlorobutadiene	LCS	0.0102	102	65-163			.01mg/L	07/27/99	VKA
	LCSD	0.0107	107		4.8	0-20	.01mg/L	07/27/99	VKA
Naphthalene	LCS	0.0104	104	75-145			.01mg/L	07/27/99	VKA
	LCSD	0.0107	107		2.8	0-20	.01mg/L	07/27/99	VKA
1,2,3-Trichlorobenzene	LCS	0.0103	103	77-148			.01mg/L	07/27/99	VKA
	LCSD	0.0106	106		2.9	0-20	.01mg/L	07/27/99	VKA
4-Methyl-2-pentanone (MIBK)	LCS	0.0158	105	68-134			.015mg/L	07/27/99	VKA
	LCSD	0.0155	104		.96	0-20	.015mg/L	07/27/99	VKA
2-Hexanone	LCS	0.0144	95.7	60-134			.015mg/L	07/27/99	VKA
	LCSD	0.0142	94.3		1.5	0-20	.015mg/L	07/27/99	VKA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	Red Devil Mine 47411			
QC Batch	XXX 5731 (63000)			
Original		**Prep Date**	07/21/99 10:00	
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846 8082	PCB's

QC results affect the following production samples:

993500011 993500012 993500013

QC results for Method Blank [246674]

Run Instrument: HP 5890 Series II ECD SV H R

Parameter	Analyzed	Result	PQL	Units
Aroclor-1016	07/22/99	0.100 U	0.100	ug/L
Aroclor-1221	07/22/99	0.100 U	0.100	ug/L
Aroclor-1232	07/22/99	0.100 U	0.100	ug/L
Aroclor-1242	07/22/99	0.100 U	0.100	ug/L
Aroclor-1248	07/22/99	0.100 U	0.100	ug/L
Aroclor-1254	07/22/99	0.100 U	0.100	ug/L
Aroclor-1260	07/22/99	0.100 U	0.100	ug/L
gamma-Chlordane	07/22/99	0.0100 U	0.0100	ug/L
alpha-Chlordane	07/22/99	0.0100 U	0.0100	ug/L
alpha-BHC	07/22/99	0.0100 U	0.0100	ug/L
beta-BHC	07/22/99	0.0100 U	0.0100	ug/L
gamma-BHC (Lindane)	07/22/99	0.0100 U	0.0100	ug/L
delta-BHC	07/22/99	0.0100 U	0.0100	ug/L
Heptachlor	07/22/99	0.0100 U	0.0100	ug/L
Aldrin	07/22/99	0.0100 U	0.0100	ug/L
Heptachlor epoxide	07/22/99	0.0100 U	0.0100	ug/L
Endosulfan I	07/22/99	0.0100 U	0.0100	ug/L
4,4'-DDE	07/22/99	0.0100 U	0.0100	ug/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	Red Devil Mine 47411			
QC Batch	XXX 5731 (63000)			
Original		**Prep Date**	07/21/99 10:00	
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846 8082	PCB's

QC results for Method Blank [246674] (continued)

Run Instrument: HP 5890 Series II ECD SV H R

Parameter	Analyzed	Result	PQL	Units
Dieldrin	07/22/99	0.0100 U	0.0100	ug/L
Endrin	07/22/99	0.0100 U	0.0100	ug/L
Endosulfan II	07/22/99	0.0100 U	0.0100	ug/L
4,4'-DDD	07/22/99	0.0100 U	0.0100	ug/L
Endrin aldehyde	07/22/99	0.0100 U	0.0100	ug/L
4,4'-DDT	07/22/99	0.0100 U	0.0100	ug/L
Endosulfan sulfate	07/22/99	0.0100 U	0.0100	ug/L
Endrin ketone	07/22/99	0.0100 U	0.0100	ug/L
Methoxychlor	07/22/99	0.0100 U	0.0100	ug/L
Toxaphene	07/22/99	1.00 U	1.00	ug/L

F-701

CT&E Environmental Services Inc.

Client Harding Lawson & Assoc
Workorder Red Devil Mine 47411

QC Batch XXX 5731 (63000)
Original
Matrix Water (Surface, Eff., Ground)

Prep Date 07/21/99 10:00
Analysis Method SW846-8081A Pesticides

QC results affect the following production samples:

993500011 993500012 993500013

QC results for Lab Check Standard [246675] - Lab Check Standard Duplicate [246676]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
gamma-Chlordane	LCS	0.073	73	47-133			.1ug/L	07/22/99	SJF
	LCSD	0.068	68		7.1	0-25	.1ug/L	07/22/99	SJF
alpha-Chlordane	LCS	0.079	79	50-143			.1ug/L	07/22/99	SJF
	LCSD	0.075	75		5.2	0-25	.1ug/L	07/22/99	SJF
alpha-BHC	LCS	0.07	70	41-129			.1ug/L	07/22/99	SJF
	LCSD	0.067	67		4.4	0-25	.1ug/L	07/22/99	SJF
beta-BHC	LCS	0.082	82	45-149			.1ug/L	07/22/99	SJF
	LCSD	0.088	88		7.1	0-25	.1ug/L	07/22/99	SJF
gamma-BHC (Lindane)	LCS	0.073	73	45-137			.1ug/L	07/22/99	SJF
	LCSD	0.07	70		4.2	0-25	.1ug/L	07/22/99	SJF
delta-BHC	LCS	0.08	80	46-146			.1ug/L	07/22/99	SJF
	LCSD	0.078	78		2.5	0-25	.1ug/L	07/22/99	SJF
Heptachlor	LCS	0.065	65	48-134			.1ug/L	07/22/99	SJF
	LCSD	0.047	47		32.1	0-25	.1ug/L	07/22/99	SJF
Aldrin	LCS	0.046	46	43-139			.1ug/L	07/22/99	SJF
	LCSD	0.028	28		48.6	0-25	.1ug/L	07/22/99	SJF
Heptachlor epoxide	LCS	0.079	79	48-142			.1ug/L	07/22/99	SJF
	LCSD	0.078	78		1.3	0-25	.1ug/L	07/22/99	SJF

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	Red Devil Mine 47411			
QC Batch	XXX 5731 (63000)			
Original		**Prep Date**	07/21/99 10:00	
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8081A	Pesticides

QC results for Lab Check Standard [246675] - Lab Check Standard Duplicate [246676] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Endosulfan I	LCS	0.081	81	49-135			.1ug/L	07/22/99	SJF
	LCSD	0.08	80		1.2	0-25	.1ug/L	07/22/99	SJF
4,4'-DDE	LCS	0.081	81	47-140			.1ug/L	07/22/99	SJF
	LCSD	0.077	77		5.1	0-25	.1ug/L	07/22/99	SJF
Dieldrin	LCS	0.078	78	47-135			.1ug/L	07/22/99	SJF
	LCSD	0.076	76		2.6	0-25	.1ug/L	07/22/99	SJF
Endrin	LCS	0.092	92	58-147			.1ug/L	07/22/99	SJF
	LCSD	0.091	91		1.1	0-25	.1ug/L	07/22/99	SJF
Endosulfan II	LCS	0.083	83	55-134			.1ug/L	07/22/99	SJF
	LCSD	0.08	80		3.7	0-25	.1ug/L	07/22/99	SJF
4,4'-DDD	LCS	0.091	91	43-159			.1ug/L	07/22/99	SJF
	LCSD	0.092	92		1.1	0-25	.1ug/L	07/22/99	SJF
Endrin aldehyde	LCS	0.081	81	39-141			.1ug/L	07/22/99	SJF
	LCSD	0.079	79		2.5	0-25	.1ug/L	07/22/99	SJF
4,4'-DDT	LCS	0.084	84	50-141			.1ug/L	07/22/99	SJF
	LCSD	0.083	83		1.2	0-25	.1ug/L	07/22/99	SJF
Endosulfan sulfate	LCS	0.091	91	51-160			.1ug/L	07/22/99	SJF
	LCSD	0.082	82		10.4	0-25	.1ug/L	07/22/99	SJF
Endrin ketone	LCS	0.087	87	54-138			.1ug/L	07/22/99	SJF
	LCSD	0.085	85		2.3	0-25	.1ug/L	07/22/99	SJF

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	Red Devil Mine 47411			
QC Batch	XXX 5731 (63000)			
Original		**Prep Date**	07/21/99 10:00	
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8081A	Pesticides

QC results for Lab Check Standard [246675] - Lab Check Standard Duplicate [246676] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Methoxychlor	LCS	0.14	140	53-159			.1ug/L	07/22/99	SJF
	LCSD	0.144	144		2.8	0-25	.1ug/L	07/22/99	SJF

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	Red Devil Mine 47411			
QC Batch	XXX 5731 (63000)			
Original		**Prep Date**	07/21/99 10:00	
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846 8082	PCB's

QC results affect the following production samples:

993500011 993500012 993500013

QC results for Lab Check Standard [246677] - Lab Check Standard Duplicate [246678]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aroclor-1016	LCS	0.82	82	45-109			1ug/L	07/22/99	SHR
	LCSD	0.797	79.7		2.8	0-25	1ug/L	07/22/99	SHR
Aroclor-1260	LCS	0.799	79.9	45-109			1ug/L	07/22/99	SHR
	LCSD	0.802	80.2		.37	0-25	1ug/L	07/22/99	SHR

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results affect the following production samples:

993500011 993500012 993500013 993500019 993500020

QC results for Method Blank [246692]

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
N-Nitrosodimethylamine	07/29/99	0.0020 U	0.0020	mg/L
Pyridine	07/29/99	0.0020 U	0.0020	mg/L
Aniline	07/29/99	0.0020 U	0.0020	mg/L
Phenol	07/29/99	0.0020 U	0.0020	mg/L
Bis(2-Chloroethyl)ether	07/29/99	0.0020 U	0.0020	mg/L
2-Chlorophenol	07/29/99	0.0020 U	0.0020	mg/L
1,3-Dichlorobenzene	07/29/99	0.0020 U	0.0020	mg/L
1,4-Dichlorobenzene	07/29/99	0.0020 U	0.0020	mg/L
Benzyl alcohol	07/29/99	0.0020 U	0.0020	mg/L
1,2-Dichlorobenzene	07/29/99	0.0020 U	0.0020	mg/L
2-Methylphenol (o-Cresol)	07/29/99	0.0020 U	0.0020	mg/L
bis(2-chloroisopropyl)ether	07/29/99	0.0020 U	0.0020	mg/L
3&4-Methylphenol (p&m-Cresol)	07/29/99	0.0020 U	0.0020	mg/L
N-Nitroso-di-n-propylamine	07/29/99	0.0020 U	0.0020	mg/L
Hexachloroethane	07/29/99	0.0020 U	0.0020	mg/L
Nitrobenzene	07/29/99	0.0020 U	0.0020	mg/L
Isophorone	07/29/99	0.0020 U	0.0020	mg/L

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Method Blank [246692] (continued)

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
2-Nitrophenol	07/29/99	0.0020 U	0.0020	mg/L
2,4-Dimethylphenol	07/29/99	0.0020 U	0.0020	mg/L
Benzoic acid	07/29/99	0.010 U	0.010	mg/L
Bis(2-Chloroethoxy)methane	07/29/99	0.0020 U	0.0020	mg/L
1,2,4-Trichlorobenzene	07/29/99	0.0020 U	0.0020	mg/L
Naphthalene	07/29/99	0.0020 U	0.0020	mg/L
4-Chloroaniline	07/29/99	0.0040 U	0.0040	mg/L
Hexachlorobutadiene	07/29/99	0.0020 U	0.0020	mg/L
4-Chloro-3-methylphenol	07/29/99	0.0040 U	0.0040	mg/L
2,4-Dichlorophenol	07/29/99	0.0020 U	0.0020	mg/L
2-Methylnaphthalene	07/29/99	0.0020 U	0.0020	mg/L
Hexachlorocyclopentadiene	07/29/99	0.0020 U	0.0020	mg/L
2,4,6-Trichlorophenol	07/29/99	0.0020 U	0.0020	mg/L
2,4,5-Trichlorophenol	07/29/99	0.0020 U	0.0020	mg/L
2-Chloronaphthalene	07/29/99	0.0020 U	0.0020	mg/L
2-Nitroaniline	07/29/99	0.010 U	0.010	mg/L
Dimethylphthalate	07/29/99	0.0020 U	0.0020	mg/L
Acenaphthylene	07/29/99	0.0020 U	0.0020	mg/L
2,6-Dinitrotoluene	07/29/99	0.0020 U	0.0020	mg/L
3-Nitroaniline	07/29/99	0.010 U	0.010	mg/L
Acenaphthene	07/29/99	0.0020 U	0.0020	mg/L

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Method Blank [246692] (continued)

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
2,4-Dinitrophenol	07/29/99	0.010 U	0.010	mg/L
4-Nitrophenol	07/29/99	0.010 U	0.010	mg/L
Dibenzofuran	07/29/99	0.0020 U	0.0020	mg/L
2,4-Dinitrotoluene	07/29/99	0.0020 U	0.0020	mg/L
Diethylphthalate	07/29/99	0.0020 U	0.0020	mg/L
4-Chlorophenyl-phenylether	07/29/99	0.0020 U	0.0020	mg/L
Fluorene	07/29/99	0.0020 U	0.0020	mg/L
4-Nitroaniline	07/29/99	0.0020 U	0.0020	mg/L
2-Methyl-4,6-dinitrophenol	07/29/99	0.010 U	0.010	mg/L
N-Nitrosodiphenylamine	07/29/99	0.0020 U	0.0020	mg/L
4-Bromophenyl-phenylether	07/29/99	0.0020 U	0.0020	mg/L
Hexachlorobenzene	07/29/99	0.0020 U	0.0020	mg/L
Pentachlorophenol	07/29/99	0.010 U	0.010	mg/L
Phenanthrene	07/29/99	0.010 U	0.010	mg/L
Anthracene	07/29/99	0.0020 U	0.0020	mg/L
Di-n-butylphthalate	07/29/99	0.0020 U	0.0020	mg/L
Fluoranthene	07/29/99	0.0020 U	0.0020	mg/L
Pyrene	07/29/99	0.0020 U	0.0020	mg/L
Azobenzene	07/29/99	0.0020 U	0.0020	mg/L
Butylbenzylphthalate	07/29/99	0.0020 U	0.0020	mg/L
3,3-Dichlorobenzidine	07/29/99	0.0040 U	0.0040	mg/L

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Method Blank [246692] (continued)

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
Benzo(a)Anthracene	07/29/99	0.0020 U	0.0020	mg/L
Chrysene	07/29/99	0.0020 U	0.0020	mg/L
bis(2-Ethylhexyl)phthalate	07/29/99	0.0020 U	0.0020	mg/L
di-n-Octylphthalate	07/29/99	0.0020 U	0.0020	mg/L
Benzo[b]Fluoranthene	07/29/99	0.0020 U	0.0020	mg/L
Benzo[k]fluoranthene	07/29/99	0.0020 U	0.0020	mg/L
Benzo[a]pyrene	07/29/99	0.0020 U	0.0020	mg/L
Indeno[1,2,3-c,d] pyrene	07/29/99	0.0020 U	0.0020	mg/L
Dibenzo[a,h]anthracene	07/29/99	0.0020 U	0.0020	mg/L
Benzo[g,h,i]perylene	07/29/99	0.0020 U	0.0020	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results affect the following production samples:

993500011 993500012 993500013 993500019 993500020

QC results for Lab Check Standard [246693] - Lab Check Standard Duplicate [246694]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
N-Nitrosodimethylamine	LCS	0.0407	40.7	10-42			.1mg/L	07/29/99	SPA
	LCSD	0.0237	23.7		52.8	0-30	.1mg/L	07/29/99	SPA
Pyridine	LCS	0.0347	34.7	10-35			.1mg/L	07/29/99	SPA
	LCSD	0.0221	22.1		44.4	0-30	.1mg/L	07/29/99	SPA
Aniline	LCS	0.11	110	10-81			.1mg/L	07/29/99	SPA
	LCSD	0.0664	66.4		49.4	0-30	.1mg/L	07/29/99	SPA
Phenol	LCS	0.0315	31.5	10-35			.1mg/L	07/29/99	SPA
	LCSD	0.018	18		54.5	0-30	.1mg/L	07/29/99	SPA
Bis(2-Chloroethyl)ether	LCS	0.0654	65.4	15-85			.1mg/L	07/29/99	SPA
	LCSD	0.0433	43.3		40.7	0-30	.1mg/L	07/29/99	SPA
2-Chlorophenol	LCS	0.0688	68.8	13-75			.1mg/L	07/29/99	SPA
	LCSD	0.0399	39.9		53.2	0-30	.1mg/L	07/29/99	SPA
1,3-Dichlorobenzene	LCS	0.0425	42.5	10-63			.1mg/L	07/29/99	SPA
	LCSD	0.0272	27.2		43.9	0-30	.1mg/L	07/29/99	SPA
1,4-Dichlorobenzene	LCS	0.0476	47.6	10-65			.1mg/L	07/29/99	SPA
	LCSD	0.0285	28.5		50.2	0-30	.1mg/L	07/29/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [246693] - Lab Check Standard Duplicate [246694] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Benzyl alcohol	LCS	0.0561	56.1	10-71			.1mg/L	07/29/99	SPA
	LCSD	0.0375	37.5		39.7	0-30	.1mg/L	07/29/99	SPA
1,2-Dichlorobenzene	LCS	0.0494	49.4	10-67			.1mg/L	07/29/99	SPA
	LCSD	0.0296	29.6		50.1	0-30	.1mg/L	07/29/99	SPA
2-Methylphenol (o-Cresol)	LCS	0.0645	64.5	16-71			.1mg/L	07/29/99	SPA
	LCSD	0.0413	41.3		43.9	0-30	.1mg/L	07/29/99	SPA
bis(2-chloroisopropyl)ether	LCS	0.067	67	13-107			.1mg/L	07/29/99	SPA
	LCSD	0.0432	43.2		43.2	0-30	.1mg/L	07/29/99	SPA
3&4-Methylphenol (p&m-Cresol)	LCS	0.0849	60.6	14-75			.14mg/L	07/29/99	SPA
	LCSD	0.0545	38.9		43.6	0-30	.14mg/L	07/29/99	SPA
N-Nitroso-di-n-propylamine	LCS	0.0799	79.9	20-95			.1mg/L	07/29/99	SPA
	LCSD	0.0611	61.1		26.7	0-30	.1mg/L	07/29/99	SPA
Hexachloroethane	LCS	0.0443	44.3	10-62			.1mg/L	07/29/99	SPA
	LCSD	0.0275	27.5		46.8	0-30	.1mg/L	07/29/99	SPA
Nitrobenzene	LCS	0.0648	64.8	18-89			.1mg/L	07/29/99	SPA
	LCSD	0.045	45		36.1	0-30	.1mg/L	07/29/99	SPA
Isophorone	LCS	0.0755	75.5	25-97			.1mg/L	07/29/99	SPA
	LCSD	0.0596	59.6		23.5	0-30	.1mg/L	07/29/99	SPA
2-Nitrophenol	LCS	0.078	78	18-86			.1mg/L	07/29/99	SPA
	LCSD	0.0473	47.3		49	0-30	.1mg/L	07/29/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [246693] - Lab Check Standard Duplicate [246694] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
2,4-Dimethylphenol	LCS	0.0712	71.2	21-91			.1mg/L	07/29/99	SPA
	LCSD	0.0539	53.9		27.7	0-30	.1mg/L	07/29/99	SPA
Benzoic acid	LCS	0.042	30	10-32			.14mg/L	07/29/99	SPA
	LCSD	0.0298	21.3		33.9	0-30	.14mg/L	07/29/99	SPA
Bis(2-Chloroethoxy)methane	LCS	0.0704	70.4	20-95			.1mg/L	07/29/99	SPA
	LCSD	0.052	52		30.1	0-30	.1mg/L	07/29/99	SPA
1,2,4-Trichlorobenzene	LCS	0.0588	58.8	10-72			.1mg/L	07/29/99	SPA
	LCSD	0.036	36		48.1	0-30	.1mg/L	07/29/99	SPA
Naphthalene	LCS	0.0646	64.6	12-82			.1mg/L	07/29/99	SPA
	LCSD	0.0436	43.6		38.8	0-30	.1mg/L	07/29/99	SPA
4-Chloroaniline	LCS	0.0772	77.2	24-88			.1mg/L	07/29/99	SPA
	LCSD	0.06	60		25.1	0-30	.1mg/L	07/29/99	SPA
Hexachlorobutadiene	LCS	0.059	59	10-70			.1mg/L	07/29/99	SPA
	LCSD	0.0327	32.7		57.4	0-30	.1mg/L	07/29/99	SPA
4-Chloro-3-methylphenol	LCS	0.0768	76.8	25-92			.1mg/L	07/29/99	SPA
	LCSD	0.0592	59.2		25.9	0-30	.1mg/L	07/29/99	SPA
2,4-Dichlorophenol	LCS	0.0756	75.6	21-85			.1mg/L	07/29/99	SPA
	LCSD	0.0484	48.4		43.9	0-30	.1mg/L	07/29/99	SPA
2-Methylnaphthalene	LCS	0.0692	69.2	13-82			.1mg/L	07/29/99	SPA
	LCSD	0.051	51		30.3	0-30	.1mg/L	07/29/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [246693] - Lab Check Standard Duplicate [246694] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Hexachlorocyclopentadiene	LCS	0.0742	74.2	10-74			.1mg/L	07/29/99	SPA
	LCSD	0.0474	47.4		44.1	0-30	.1mg/L	07/29/99	SPA
2,4,6-Trichlorophenol	LCS	0.0886	88.6	30-95			.1mg/L	07/29/99	SPA
	LCSD	0.0657	65.7		29.7	0-30	.1mg/L	07/29/99	SPA
2,4,5-Trichlorophenol	LCS	0.088	88	30-92			.1mg/L	07/29/99	SPA
	LCSD	0.068	68		25.6	0-30	.1mg/L	07/29/99	SPA
2-Chloronaphthalene	LCS	0.0734	73.4	17-88			.1mg/L	07/29/99	SPA
	LCSD	0.0575	57.5		24.3	0-30	.1mg/L	07/29/99	SPA
2-Nitroaniline	LCS	0.0908	90.8	38-107			.1mg/L	07/29/99	SPA
	LCSD	0.081	81		11.4	0-30	.1mg/L	07/29/99	SPA
Dimethylphthalate	LCS	0.0862	86.2	38-100			.1mg/L	07/29/99	SPA
	LCSD	0.0761	76.1		12.4	0-30	.1mg/L	07/29/99	SPA
Acenaphthylene	LCS	0.0788	78.8	27-97			.1mg/L	07/29/99	SPA
	LCSD	0.0671	67.1		16	0-30	.1mg/L	07/29/99	SPA
2,6-Dinitrotoluene	LCS	0.0866	86.6	41-107			.1mg/L	07/29/99	SPA
	LCSD	0.0782	78.2		10.2	0-30	.1mg/L	07/29/99	SPA
3-Nitroaniline	LCS	0.0858	85.8	39-100			.1mg/L	07/29/99	SPA
	LCSD	0.0774	77.4		10.3	0-30	.1mg/L	07/29/99	SPA
Acenaphthene	LCS	0.0797	79.7	26-95			.1mg/L	07/29/99	SPA
	LCSD	0.0668	66.8		17.6	0-30	.1mg/L	07/29/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [246693] - Lab Check Standard Duplicate [246694] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
2,4-Dinitrophenol	LCS	0.157	87	41-109			.18mg/L	07/29/99	SPA
	LCSD	0.134	74.6		15.3	0-30	.18mg/L	07/29/99	SPA
4-Nitrophenol	LCS	0.0414	29.6	10-35			.14mg/L	07/29/99	SPA
	LCSD	0.0319	22.8		26	0-30	.14mg/L	07/29/99	SPA
Dibenzofuran	LCS	0.083	83	29-97			.1mg/L	07/29/99	SPA
	LCSD	0.0707	70.7		16	0-30	.1mg/L	07/29/99	SPA
2,4-Dinitrotoluene	LCS	0.086	86	43-110			.1mg/L	07/29/99	SPA
	LCSD	0.0801	80.1		7.1	0-30	.1mg/L	07/29/99	SPA
Diethylphthalate	LCS	0.0876	87.6	41-105			.1mg/L	07/29/99	SPA
	LCSD	0.0788	78.8		10.6	0-30	.1mg/L	07/29/99	SPA
4-Chlorophenyl-phenylether	LCS	0.0863	86.3	30-95			.1mg/L	07/29/99	SPA
	LCSD	0.0754	75.4		13.5	0-30	.1mg/L	07/29/99	SPA
Fluorene	LCS	0.088	88	34-98			.1mg/L	07/29/99	SPA
	LCSD	0.0797	79.7		9.9	0-30	.1mg/L	07/29/99	SPA
4-Nitroaniline	LCS	0.0984	98.4	42-106			.1mg/L	07/29/99	SPA
	LCSD	0.0904	90.4		8.5	0-30	.1mg/L	07/29/99	SPA
2-Methyl-4,6-dinitrophenol	LCS	0.174	96.7	41-130			.18mg/L	07/29/99	SPA
	LCSD	0.149	82.9		15.4	0-30	.18mg/L	07/29/99	SPA
N-Nitrosodiphenylamine	LCS	0.0888	88.8	43-110			.1mg/L	07/29/99	SPA
	LCSD	0.0824	82.4		7.5	0-30	.1mg/L	07/29/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [246693] - Lab Check Standard Duplicate [246694] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
4-Bromophenyl-phenylether	LCS	0.0784	78.4	33-89			.1mg/L	07/29/99	SPA
	LCSD	0.07	70		11.3	0-30	.1mg/L	07/29/99	SPA
Hexachlorobenzene	LCS	0.0909	90.9	39-105			.1mg/L	07/29/99	SPA
	LCSD	0.0815	81.5		10.9	0-30	.1mg/L	07/29/99	SPA
Pentachlorophenol	LCS	0.124	88.9	40-104			.14mg/L	07/29/99	SPA
	LCSD	0.104	74		18.3	0-30	.14mg/L	07/29/99	SPA
Phenanthrene	LCS	0.087	87	41-108			.1mg/L	07/29/99	SPA
	LCSD	0.0776	77.6		11.4	0-30	.1mg/L	07/29/99	SPA
Anthracene	LCS	0.0862	86.2	42-107			.1mg/L	07/29/99	SPA
	LCSD	0.0802	80.2		7.2	0-30	.1mg/L	07/29/99	SPA
Di-n-butylphthalate	LCS	0.0905	90.5	43-113			.1mg/L	07/29/99	SPA
	LCSD	0.0862	86.2		4.9	0-30	.1mg/L	07/29/99	SPA
Fluoranthene	LCS	0.09	90	46-111			.1mg/L	07/29/99	SPA
	LCSD	0.0822	82.2		9.1	0-30	.1mg/L	07/29/99	SPA
Pyrene	LCS	0.0902	90.2	44-119			.1mg/L	07/29/99	SPA
	LCSD	0.0839	83.9		7.2	0-30	.1mg/L	07/29/99	SPA
Azobenzene	LCS	0.0833	83.3	32-105			.1mg/L	07/29/99	SPA
	LCSD	0.0745	74.5		11.2	0-30	.1mg/L	07/29/99	SPA
Butylbenzylphthalate	LCS	0.0961	96.1	47-121			.1mg/L	07/29/99	SPA
	LCSD	0.0928	92.8		3.5	0-30	.1mg/L	07/29/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [246693] - Lab Check Standard Duplicate [246694] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
3,3-Dichlorobenzidine	LCS	0.0708	70.8	38-111			.1mg/L	07/29/99	SPA
	LCSD	0.0658	65.8		7.3	0-30	.1mg/L	07/29/99	SPA
Benzo(a)Anthracene	LCS	0.0882	88.2	46-117			.1mg/L	07/29/99	SPA
	LCSD	0.0821	82.1		7.2	0-30	.1mg/L	07/29/99	SPA
Chrysene	LCS	0.0893	89.3	46-119			.1mg/L	07/29/99	SPA
	LCSD	0.0858	85.8		4	0-30	.1mg/L	07/29/99	SPA
bis(2-Ethylhexyl)phthalate	LCS	0.0986	98.6	44-116			.1mg/L	07/29/99	SPA
	LCSD	0.0937	93.7		5.1	0-30	.1mg/L	07/29/99	SPA
di-n-Octylphthalate	LCS	0.0924	92.4	35-124			.1mg/L	07/29/99	SPA
	LCSD	0.0873	87.3		5.7	0-30	.1mg/L	07/29/99	SPA
Benzo[b]Fluoranthene	LCS	0.0925	92.5	40-127			.1mg/L	07/29/99	SPA
	LCSD	0.0821	82.1		11.9	0-30	.1mg/L	07/29/99	SPA
Benzo[k]fluoranthene	LCS	0.0891	89.1	37-123			.1mg/L	07/29/99	SPA
	LCSD	0.0924	92.4		3.6	0-30	.1mg/L	07/29/99	SPA
Benzo[a]pyrene	LCS	0.0898	89.8	38-127			.1mg/L	07/29/99	SPA
	LCSD	0.0851	85.1		5.4	0-30	.1mg/L	07/29/99	SPA
Indeno[1,2,3-c,d] pyrene	LCS	0.0782	78.2	26-145			.1mg/L	07/29/99	SPA
	LCSD	0.0707	70.7		10.1	0-30	.1mg/L	07/29/99	SPA
Dibenzo[a,h]anthracene	LCS	0.0776	77.6	28-143			.1mg/L	07/29/99	SPA
	LCSD	0.07	70		10.3	0-30	.1mg/L	07/29/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	XXX 5736 (63005)		
Original		**Prep Date**	07/21/99 09:15
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [246693] - Lab Check Standard Duplicate [246694] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Benzo[g,h,i]perylene	LCS	0.0768	76.8	27-146			.1mg/L	07/29/99	SPA
	LCSD	0.0702	70.2		9	0-30	.1mg/L	07/29/99	SPA

F-701

CT&E Environmental Services Inc.

Laboratory Division

Laboratory Analysis Report

Client Harding Lawson & Assoc
Workorder Red Devil Mine 47411

QC Batch MXX 6027 (63215)
Original 993500001
Matrix Soil/Solid

Prep Date 07/23/99 16:41
Analysis Method SW846-7041

QC results affect the following production samples:

993500001	993500002	993500003	993500004	993500005
993500006	993500007	993500008	993500009	993500010

QC results for Matrix Spike [247585] - Matrix Spike Duplicate [247586]

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Antimony	MS	6.85	13.3	51.7				12.5mg/Kg	07/27/99	F4
	MSD		12.8	52.2		.96		12.5mg/Kg	07/27/99	F4
Arsenic	MS	94.3	671	4630	85-115			12.5mg/Kg	07/29/99	F1
	MSD		97.1	25.1		198	0-20	12.5mg/Kg	07/29/99	F1
Beryllium	MS	0.189	1.74	124				1.25mg/Kg	07/27/99	F2
	MSD		1.83	143		14.2		1.25mg/Kg	07/27/99	F2
Cadmium	MS	0.168	1.42	101	85-115			1.25mg/Kg	07/26/99	F2
	MSD		1.43	110		8.5	0-20	1.25mg/Kg	07/26/99	F2
Chromium	MS	13.5	40.3	108	85-115			24.9mg/Kg	07/26/99	F4
	MSD		39.3	113		4.5	0-20	24.9mg/Kg	07/26/99	F4
Lead	MS	3.74	17.1	107	85-115			12.5mg/Kg	07/26/99	F4
	MSD		17	116		8.1	0-20	12.5mg/Kg	07/26/99	F4
Selenium	MS	ND	10	80.2				12.5mg/Kg	07/29/99	F1
	MSD		9.68	84.8		5.6	020	12.5mg/Kg	07/29/99	F1
Silver	MS	ND	1.71	82.4				2.08mg/Kg	07/26/99	F2
	MSD		1.62	85.4		3.6		2.08mg/Kg	07/26/99	F2

As not reported from this batch. 8/17

200 W. Potter Drive, **Anchorage, AK 99518-1605** — Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road, **Fairbanks, AK 99709-5471** — Tel: (907) 474-8656 Fax: (907) 474-9685

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	Red Devil Mine 47411
QC Batch	MXX 6027 (63215)
Original	993500001
Matrix	Soil/Solid
Prep Date	07/23/99 16:41
Analysis Method	SW846-7841

QC results for Matrix Spike [247585] - Matrix Spike Duplicate [247586] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Thallium	MS	ND	5.61	90				6.23mg/Kg	07/27/99	F4
	MSD		5.56	97.3		7.8		6.23mg/Kg	07/27/99	F4

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6027 (63215)		
Original	993500001	**Prep Date**	07/23/99 16:41
Matrix	Soil/Solid	**Analysis Method**	SW846-7041

QC results affect the following production samples:

993500001	993500002	993500003	993500004	993500005
993500006	993500007	993500008	993500009	993500010

QC results for Bench Spike DIGESTED [247587]

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Antimony	BND	6.85	15.7	93.8	85-115			9.44mg/Kg	07/27/99	F4
Beryllium	BND	0.189	0.359	90.4	85-115			.189mg/Kg	07/27/99	F2
Cadmium	BND	0.168	0.274	112	85-115			.0944mg/Kg	07/26/99	F2
Lead	BND	3.74	14.2	111	85-115			9.44mg/Kg	07/26/99	F4
Selenium	BND	ND	1.67	88.2				1.89mg/Kg	07/29/99	F1
Silver	BND	ND	0.207	110				.189mg/Kg	07/26/99	F2
Thallium	BND	ND	1.02	108	85-115			.944mg/Kg	07/27/99	F4

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6024 (63145)		
Original		**Prep Date**	07/22/99 17:00
Matrix	Soil/Solid	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993500001	993500002	993500003	993500004	993500005
993500006	993500007	993500008		

QC results for Method Blank [247288]

Run Instrument: TJA Enviro II ICP P2

Parameter	Analyzed	Result	PQL	Units
Aluminum	07/23/99	5.00 U	5.00	mg/Kg
Barium	07/23/99	0.500 U	0.500	mg/Kg
Calcium	07/23/99	50.0 U	50.0	mg/Kg
Cobalt	07/23/99	0.500 U	0.500	mg/Kg
Copper	07/23/99	0.500 U	0.500	mg/Kg
Iron	07/23/99	2.50 U	2.50	mg/Kg
Potassium	07/27/99	225 U	225	mg/Kg
Magnesium	07/23/99	5.00 U	5.00	mg/Kg
Manganese	07/23/99	1.00 U	1.00	mg/Kg
Sodium	07/23/99	50.0 U	50.0	mg/Kg
Nickel	07/23/99	1.00 U	1.00	mg/Kg
Vanadium	07/23/99	0.500 U	0.500	mg/Kg
Zinc	07/23/99	1.00 U	1.00	mg/Kg

F-701

CT&E Environmental Services Inc.

Client Harding Lawson & Assoc
Workorder Red Devil Mine 47411

QC Batch MXX 6032 (63228)
Original
Matrix Water (Surface, Eff., Ground)

Prep Date 07/23/99 16:30
Analysis Method SW846 6010B

QC results affect the following production samples:

993500011 993500012 993500013 993500014 993500015

QC results for Lab Check Standard [247647]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aluminum	LCS	1.21	103	85-115			1.18mg/L	07/27/99	P2
Barium	LCS	1.19	101	85-115			1.18mg/L	07/27/99	P2
Calcium	LCS	11.2	95.1	85-115			11.8mg/L	07/27/99	P2
Cobalt	LCS	1.18	100	85-115			1.18mg/L	07/27/99	P2
Copper	LCS	1.16	98.9	85-115			1.18mg/L	07/27/99	P2
Iron	LCS	1.21	103	85-115			1.18mg/L	07/27/99	P2
Magnesium	LCS	11	93.4	85-115			11.8mg/L	07/27/99	P2
Manganese	LCS	1.17	99.3	85-115			1.18mg/L	07/27/99	P2
Nickel	LCS	1.17	99.9	85-115			1.18mg/L	07/27/99	P2
Potassium	LCS	10.2	86.6	85-115			11.8mg/L	07/27/99	P2
Sodium	LCS	11.4	96.9	85-115			11.8mg/L	07/27/99	P2
Vanadium	LCS	1.15	97.9	85-115			1.18mg/L	07/27/99	P2
Zinc	LCS	1.12	95.3	85-115			1.18mg/L	07/27/99	P2

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6034 (63304)		
Original		**Prep Date**	07/26/99 15:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW7470/E245.1

QC results affect the following production samples:

993500011	993500012	993500013	993500014	993500015
993500016	993500017	993500019	993500020	

QC results for Method Blank [248042]

Run Instrument: HgAA Leeman AutoAnalyzer PS200

Parameter	Analyzed	Result	PQL	Units
Mercury by Cold Vapor	07/26/99	0.000200 U	0.000200	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6034 (63304)		
Original		**Prep Date**	07/26/99 15:00
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW7470/E245.1

QC results affect the following production samples:

993500011	993500012	993500013	993500014	993500015
993500016	993500017	993500019	993500020	

QC results for Lab Check Standard [248043]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Mercury by Cold Vapor	LCS	0.00399	99.8				.004mg/L	07/26/99	F3

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6042 (63363)		
Original		**Prep Date**	07/27/99 14:21
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993500016 993500017

QC results for Method Blank [248379]

Run Instrument: TJA Enviro II ICP P2

Parameter	Analyzed	Result	PQL	Units
Aluminum	07/30/99	0.111 U	0.111	mg/L
Barium	07/30/99	0.0111 U	0.0111	mg/L
Calcium	07/30/99	1.11 U	1.11	mg/L
Cobalt	07/30/99	0.0111 U	0.0111	mg/L
Copper	07/30/99	0.0111 U	0.0111	mg/L
Iron	07/30/99	0.0556 U	0.0556	mg/L
Potassium	07/30/99	5.00 U	5.00	mg/L
Magnesium	07/30/99	0.111 U	0.111	mg/L
Manganese	07/30/99	0.0222 U	0.0222	mg/L
Sodium	07/30/99	1.11 U	1.11	mg/L
Nickel	07/30/99	0.0222 U	0.0222	mg/L
Vanadium	07/30/99	0.0111 U	0.0111	mg/L
Zinc	07/30/99	0.0222 U	0.0222	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6042 (63363)		
Original		**Prep Date**	07/27/99 14:21
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993500016 993500017

QC results for Lab Check Standard [248380]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aluminum	LCS	1.21	102	85-115			1.18mg/L	07/30/99	P2
Barium	LCS	1.2	102	85-115			1.18mg/L	07/30/99	P2
Calcium	LCS	11.4	97	85-115			11.8mg/L	07/30/99	P2
Cobalt	LCS	1.19	101	85-115			1.18mg/L	07/30/99	P2
Copper	LCS	1.18	100	85-115			1.18mg/L	07/30/99	P2
Iron	LCS	1.19	101	85-115			1.18mg/L	07/30/99	P2
Magnesium	LCS	11.2	95.5	85-115			11.8mg/L	07/30/99	P2
Manganese	LCS	1.18	100	85-115			1.18mg/L	07/30/99	P2
Nickel	LCS	1.18	100	85-115			1.18mg/L	07/30/99	P2
Potassium	LCS	10.5	89.4	85-115			11.8mg/L	07/30/99	P2
Sodium	LCS	11.6	98.3	85-115			11.8mg/L	07/30/99	P2
Vanadium	LCS	1.18	99.9	85-115			1.18mg/L	07/30/99	P2
Zinc	LCS	1.14	96.5	85-115			1.18mg/L	07/30/99	P2

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	Red Devil Mine 47411
QC Batch	MXX 6042 (63363)
Original	993500016
Matrix	Water (Surface, Eff., Ground)
Prep Date	07/27/99 14:21
Analysis Method	SW846 6010B

QC results affect the following production samples:

993500016 993500017

QC results for Matrix Spike [248381] - Matrix Spike Duplicate [248382]

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aluminum	MS	1.71	3.32	137	75-125			1.18mg/L	07/30/99	P2
	MSD		3.48	150		9.1	0-20	1.18mg/L	07/30/99	P2
Barium	MS	0.0547	1.26	102	75-125			1.18mg/L	07/30/99	P2
	MSD		1.26	103		.98	0-20	1.18mg/L	07/30/99	P2
Calcium	MS	17.2	28.4	95.5	75-125			11.8mg/L	07/30/99	P2
	MSD		28.8	98.2		2.8	0-20	11.8mg/L	07/30/99	P2
Cobalt	MS	ND	1.18	100	75-125			1.18mg/L	07/30/99	P2
	MSD		1.19	101		1	0-20	1.18mg/L	07/30/99	P2
Copper	MS	ND	1.18	100	75-125			1.18mg/L	07/30/99	P2
	MSD		1.18	101		1	0-20	1.18mg/L	07/30/99	P2
Iron	MS	3.49	4.78	110	75-125			1.18mg/L	07/30/99	P2
	MSD		4.84	115		4.4	0-20	1.18mg/L	07/30/99	P2
Magnesium	MS	4.72	15.9	95.4	75-125			11.8mg/L	07/30/99	P2
	MSD		16.1	96.6		1.3	0-20	11.8mg/L	07/30/99	P2
Manganese	MS	0.0832	1.26	99.7	75-125			1.18mg/L	07/30/99	P2
	MSD		1.26	99.9		.2	0-20	1.18mg/L	07/30/99	P2
Nickel	MS	ND	1.18	100	75-125			1.18mg/L	07/30/99	P2
	MSD		1.19	101		1	0-20	1.18mg/L	07/30/99	P2

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6042 (63363)		
Original	993500016	**Prep Date**	07/27/99 14:21
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846 6010B

QC results for Matrix Spike [248381] - Matrix Spike Duplicate [248382] (continued)

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Potassium	MS	ND	11.1	94.7	75-125			11.8mg/L	07/30/99	P2
	MSD		11.6	98.9		4.3	0-20	11.8mg/L	07/30/99	P2
Sodium	MS	2.04	13.8	100	75-125			11.8mg/L	07/30/99	P2
	MSD		13.9	101		1	0-20	11.8mg/L	07/30/99	P2
Vanadium	MS	ND	1.17	99.7	75-125			1.18mg/L	07/30/99	P2
	MSD		1.19	101		1.3	0-20	1.18mg/L	07/30/99	P2
Zinc	MS	ND	1.14	96.7	75-125			1.18mg/L	07/30/99	P2
	MSD		1.14	97.3		.62	0-20	1.18mg/L	07/30/99	P2

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6042 (63363)		
Original	993500016	**Prep Date**	07/27/99 14:21
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993500016 993500017

QC results for Bench Spike DIGESTED [248383]

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aluminum	BND	1.71	2.76	94.5	75-125			1.11mg/L	07/30/99	P2
Barium	BND	0.0547	1.16	99.8	75-125			1.11mg/L	07/30/99	P2
Calcium	BND	17.2	27.9	96.6	75-125			11.1mg/L	07/30/99	P2
Cobalt	BND	ND	1.12	101	75-125			1.11mg/L	07/30/99	P2
Copper	BND	ND	1.09	98	75-125			1.11mg/L	07/30/99	P2
Iron	BND	3.49	4.55	95.5	75-125			1.11mg/L	07/30/99	P2
Magnesium	BND	4.72	15.4	96.5	75-125			11.1mg/L	07/30/99	P2
Manganese	BND	0.0832	1.22	102	75-125			1.11mg/L	07/30/99	P2
Nickel	BND	ND	1.12	101	75-125			1.11mg/L	07/30/99	P2
Potassium	BND	ND	12.4	112	75-125			11.1mg/L	07/30/99	P2
Vanadium	BND	ND	1.12	101	75-125			1.11mg/L	07/30/99	P2
Zinc	BND	ND	1.09	97.8	75-125			1.11mg/L	07/30/99	P2

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6043 (63365)		
Original		**Prep Date**	07/27/99 14:21
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-7041

QC results affect the following production samples:

993500016 993500017

QC results for Method Blank [248392]

Run Instrument: GFAA Perkin Elmer 4100

Parameter	Analyzed	Result	PQL	Units
Antimony	07/28/99	0.00556 U	0.00556	mg/L
Arsenic	07/28/99	0.00556 U	0.00556	mg/L
Beryllium	07/28/99	0.000556 U	0.000556	mg/L
Cadmium	07/28/99	0.000556 U	0.000556	mg/L
Chromium	07/28/99	0.00556 U	0.00556	mg/L
Lead	07/28/99	0.00556 U	0.00556	mg/L
Selenium	07/28/99	0.00556 U	0.00556	mg/L
Silver	07/28/99	0.00111 U	0.00111	mg/L
Thallium	07/28/99	0.00556 U	0.00556	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6043 (63365)		
Original		**Prep Date**	07/27/99 14:21
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-7041

QC results affect the following production samples:

993500016 993500017

QC results for Lab Check Standard [248393]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Antimony	LCS	0.337	98.7	85-115			.341mg/L	07/28/99	F4
Arsenic	LCS	0.319	93.7	85-115			.341mg/L	07/28/99	F1
Beryllium	LCS	0.0302	88.7	85-115			.0341mg/L	07/28/99	F2
Cadmium	LCS	0.0368	108	85-115			.0341mg/L	07/28/99	F2
Chromium	LCS	0.695	102	85-115			.682mg/L	07/28/99	F4
Lead	LCS	0.335	98.3	85-115			.341mg/L	07/28/99	F4
Selenium	LCS	0.37	109	85-115			.341mg/L	07/28/99	F1
Silver	LCS	0.0586	103	85-115			.0568mg/L	07/28/99	F2
Thallium	LCS	0.167	98	85-115			.17mg/L	07/28/99	F4

F-701

CT&E Environmental Services Inc.

Client Harding Lawson & Assoc
Workorder Red Devil Mine 47411

QC Batch MXX 6043 (63365)
Original 993500016
Matrix Water (Surface, Eff., Ground)

Prep Date 07/27/99 14:21
Analysis Method SW846-7041

QC results affect the following production samples:

993500016 993500017

QC results for Matrix Spike [248394] - Matrix Spike Duplicate [248395]

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Antimony	MS	ND	0.306	89.7	85-115			.341mg/L	07/28/99	F4
	MSD		0.329	96.5		7.3	0-20	.341mg/L	07/28/99	F4
Arsenic	MS	ND	0.285	83.7	85-115			.341mg/L	07/28/99	F1
	MSD		0.347	102		19.7	0-20	.341mg/L	07/28/99	F1
Beryllium	MS	ND	0.0316	92.7	85-115			.0341mg/L	07/28/99	F2
	MSD		0.0314	92		.76	0-20	.0341mg/L	07/28/99	F2
Cadmium	MS	ND	0.0353	104	85-115			.0341mg/L	07/28/99	F2
	MSD		0.0352	103		.97	0-20	.0341mg/L	07/28/99	F2
Chromium	MS	ND	0.67	98.3	85-115			.682mg/L	07/28/99	F4
	MSD		0.636	93.3		5.2	0-20	.682mg/L	07/28/99	F4
Lead	MS	ND	0.34	99.7	85-115			.341mg/L	07/28/99	F4
	MSD		0.33	96.7		3.1	0-20	.341mg/L	07/28/99	F4
Selenium	MS	ND	0.344	101				.341mg/L	07/28/99	F1
	MSD		0.359	105		3.9	020	.341mg/L	07/28/99	F1
Silver	MS	ND	0.0595	105	85-115			.0568mg/L	07/28/99	F2
	MSD		0.0582	102		2.9	0-20	.0568mg/L	07/28/99	F2
Thallium	MS	ND	0.17	100	85-115			.17mg/L	07/28/99	F4
	MSD		0.168	98.7		1.3	0-20	.17mg/L	07/28/99	F4

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6043 (63365)		
Original	993500016	**Prep Date**	07/27/99 14:21
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-7041

QC results affect the following production samples:

993500016 993500017

QC results for Bench Spike DIGESTED [248396]

Parameter		Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Antimony	BND	ND	0.0278	100				.0278mg/L	07/28/99	F4
Beryllium	BND	ND	0.0032	115				.00278mg/L	07/28/99	F2
Cadmium	BND	ND	0.00277	99.6	85-115			.00278mg/L	07/28/99	F2
Chromium	BND	ND	0.0293	106	85-115			.0278mg/L	07/28/99	F4
Lead	BND	ND	0.0314	113	85-115			.0278mg/L	07/28/99	F4
Silver	BND	ND	0.00613	110				.00556mg/L	07/28/99	F2

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6045 (63431)		
Original		**Prep Date**	07/27/99 07:10
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-7471

QC results affect the following production samples:

993500001	993500002	993500003	993500004	993500005
993500006	993500007	993500008		

QC results for Method Blank [248757]

Run Instrument: HgAA Leeman AutoAnalyzer PS200

Parameter	Analyzed	Result	PQL	Units
Mercury by Cold Vapor	07/27/99	0.000200 U	0.000200	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	Red Devil Mine 47411		
QC Batch	MXX 6045 (63431)		
Original		**Prep Date**	07/27/99 07:10
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-7471

QC results affect the following production samples:

993500001	993500002	993500003	993500004	993500005
993500006	993500007	993500008		

QC results for Lab Check Standard [248758]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Mercury by Cold Vapor	LCS	0.00208	104				.002mg/L	07/27/99	F3

F-701

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HARDING LAWSON
ASSOCIATES

CTE Environmental Services
Alaska Division
Laboratory Data Report

Project: 47411 Red Devil Mine

Client: Harding Lawson & Assoc

CTE Work Order: 993746

Contents:

Chain of Custody
Quality Control Summary Forms

Note:

Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the proper regulatory authority and/or CTE's Quality Assurance Program Plan.

Case Narrative

Customer: HARLAWP **Harding Lawson & Assoc**

Project: 993746 **47411 Red Devil Mine**

993746004 PS

8082- Detection limit raised 10X due to matrix interference.

8270 - Internal standard phenanthrene-d10 is biased low. The samples are non-detect. The results are not affected.

8270 - CCV recovery for benzo[g,h,i]perylene is biased low. The results for this compound are estimated.

8270 - Pattern consistent with a lube oil.

250459 LCS

8270 - LCS/LCSD RPD for most of the compounds is biased high. The results are estimated. See QC extended report for details.

8270 - LCS recovery for n-nitrosodimethlamine,aniline, phenol, bis(2-chloroethyl)ether, bis(2-chloroisopropyl)ether, isophorone, and 2,4-dimethylphenol is biased high. The results for these compounds are estimated.

8270 - LCS recovery for 4-chloro-3-methylphenol,4-nitrophenol, diethylphthalate,4-chlorophenyl-phenylether,n-nitrosodiphenylamine, di-n-butylphthalate, azobenzene, butylbenzylphthalate is biased high. The results for these compounds are estimated.

8270 - LCS recovery for bis(2-ethylhexyl)phthalate, di-n-octylphthalate, and benzo[k]fluoranthene is biased high. The results for these compounds are estimated.

250460 LCSD

8270 - LCS/LCSD RPD for most of the compounds is biased high. The results are estimated. See QC extended report for details.

8270 - LCSD recovery for aniline, pyridine, 2-methyl-4,6-dinitrophenol, pentachlorophenol, and 3,3-dichlorobenzidine is biased high. The results for these compounds are estimated.

250971 LCSD

8260 - Recovery of chloroethane is biased high. Sample results are not affected as sample concentrations are below PQL for this analyte.

250973 CCV

8260 - Recovery of bromomethane and chloroethane is biased high. Sample results are not affected as sample concentrations are below PQL for these analytes.

252769 CCV

8270 - CCV recovery for benzo[g,h,i]perylene is biased low. The results for this compound are estimated.

8270 - CCV recovery for n-nitrosodimethylamine, pyridine, aniline, bis(2-chloroethyl)ether,benzylalcohol, bis(2-ethylhexyl)phthalate,nitrobenzene is biased high. The samples are non-detect for these compounds. The results are not affected.

8270 - CCV recovery for isophorone, bis(2-chloroethoxyl)methane, 4-nitrophenol, azobenzene is biased high. The samples are non-detect for these compounds. The results are not affected.

HLA Har 601 Ancl 907 907

993746

CHAIN OF CUSTODY FORM

Lab: CT&E 3/3

Samplers: Lorri Johnson

Project Number: 47411

Name/Location: Red Dirt Tire

Project Manager: Brian Lund

Recorder: (Signature Required)

	SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Methanol	SAMPLE NUMBER OR LAB NUMBER: Yr Wk Seq	DATE: Yr Mo Dy Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	8260 TCL VOCs	8270 TCL SVOCs	8081/8082 TCL Pest/PCB	TAL Metals	Mercury	Lead 7421
1	49			X		1					990722 0500	99SLRDMR07										X		
2	49			X		1					990722 0505	99SLRDMR08										X		
3	49			X		1					990723 0230	99SLRDMG01									X			
4	49			X		3			1		990723 0250	99SLRDMD05							X	X	X	X		
5	49			X		1					990723 0315	99SLRDMB03												X
6	49			X					1			Trip blank 2							X					

END OF PROJECT

LAB NUMBER: Yr Wk Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
				Temp blank Included

1.5°C

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME 7/27 14:00

METHOD OF SHIPMENT Hand Delivered

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

Printed: 7/12/99

993746

CT&E Environmental Services Inc.

SAMPLE RECEIPT FORM

CT&E WO#:

Yes	No	
	X	Are samples **RUSH**, priority, or *within 72 hrs* of **hold time**?
	X	If yes, have you done *e-mail notification*?
	X	Are samples *within 24 hrs* of **hold time** or **due date**?
	X	If yes, have you *spoken with* Supervisor?
	X	Are there any **problems** (e.g., ids, analyses)?
X		Were samples preserved correctly and pH verified?
	X	Has Project Manager been notified of problems?
		Is this an ACOE/AFCEE/ADEC project?
		Will a **data package** be required?
		If this is for PWS, provide **PWSID**.
		Is there a **quote** for this project?
	X	Will **courier** charges apply?

Completed by (sign): Sarita Phillips (print): Sarita Phillips

*** The following *must* be completed for *all* ACOE & AFCEE projects: ***

Yes	No		Notes:
		Is cooler temperature 4 ± C?	
		thermometer used:	
		Was there an airbill, etc? note #:	
		Was cooler sealed with custody seals?	
		#/where?	
		Were seals intact upon arrival?	
		Was there a COC with cooler?	
		Was the COC filled out properly?	
		Did the COC indicate ACOE/AFCEE project?	
		Did the COC and samples correspond?	
		Were samples screened with Geiger counter?	
		Were all samples packed to prevent breakage?	
		packing material:	
		Were all samples unbroken and clearly labelled?	
		Were all samples sealed in separate plastic bags?	
		Were all bottles for volatiles free of headspace?	
		Were correct container/sample sizes submitted?	
		Was client notified of problems? (specify below)	

Individual contacted:

Date & Time: Phone/Fax #:

Due Date: 8/5

Received Date/Time: 7/27 1400

Cooler Temperature: HC

Sample Condition: Good / Poor

Matrix of each Sample:

2	" "	1-6
	" "	
	" "	
	" "	
2	Trip Blank	-7
	MS/MSD	

Additional Sample Remarks:

AK101s/_____ 8260s field pres'd?

Field-filtered for dissolved_____?

Lab-filter for dissolved_____?

Ref Lab required?

Notes:

# of each Container Received:

	950 ml amber	unpres'd
	950 ml amber	w/ HCl
	500 ml amber	w/ H2SO4
	1L cubies	unpres'd
	1L cubies	w/ HNO3
	1L cubies	w/ H2SO4
	1L cubies	w/ NaOH + ZnAc
	120 ml coli	bottles
	60 ml	Nalg
8 ~~3~~ 7	8 oz amber	unpres'd
	4 oz amber	unpres'd
2	4 oz w/ septa	w/ MeOH
	40 ml vials	w/ HCl
	Other (specify)	
	Other (specify)	

#/Log In Proofed by:

Form Number: F004r2
Printed: 7/12/99

CT&E Environmental Services Inc.
Laboratory Division

Laboratory Analysis Report

August 18, 1999

Lorri Johnson
Harding Lawson & Assoc
601 East 57th Place
Anchorage, AK 99518

Client Name	Harding Lawson & Assoc
Project ID	47411 Red Devil Mine [993746]
Printed	August 18, 1999

Enclosed are the analytical results associated with the above project.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by CT&E. A copy of our Quality Control Manual that outlines this program is available at your request.

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth in our Quality Assurance Program Plan.

If you have any questions regarding this report or if we can be of any other assistance, please call your CT&E Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value that falls below PQL, but is greater than the MDL.
B - Indicates the analyte is found in the blank associated with the sample.
* - The analyte has exceeded allowable limits.
GT - Greater Than
D - Secondary Dilution
LT - Less Than
! - Surrogate out of range

200 W. Potter Drive, **Anchorage, AK 99518-1605** — Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road, **Fairbanks, AK 99709-5471** — Tel: (907) 474-8656 Fax: (907) 474-9685

INVOICE (Duplicate)

CT&E Environmental Services Inc.

Laboratory Division

FEDERAL I.D.: 22-3334380

200 W. Potter Drive
Anchorage, AK 99518-1605
Tel: (907) 562-2343
Fax: (907) 561-5301

INVOICE NO. 52247376 Workorder Date: 07/29/99
Client PO: **DATE** 08/26/99 CT&E Ref.# 993746
Project Name: 47411 Red Devil Mine Account # HARLAWP

PLEASE REMIT TO: P.O. Box 10001-1019, Pasadena, CA 91110-1019

DIRECT PAYMENT INQUIRIES TO: 1919 S. Highland Ave., Suite 210-B, Lombard, IL 60148-4991 Tel. (630) 953-9300 Fax (630) 953-9306

TERMS: Net 30 Days. A Service Charge of One and a Half Percent (1½%) Per Month Will Be Charged on Overdue Accounts.

Bill To Harding Lawson & Assoc
601 E 57th Place
Anchorage, AK 99518

Contact Accounts Payable
Phone (907)563-8102
Ordered By

Special Instructions

Client Sample ID/CT&E Sample ID	Parameter	Charge
99SLRDMR07[993746001]	Mercury SW7471 (S)	25.00
99SLRDMR08[993746002]	Mercury SW7471 (S)	25.00
99SLRDMG01[993746003]	Target Analyte List	319.73
99SLRDMD05[993746004]	Target Analyte List	319.73
99SLRDMD05[993746004]	VOC, 8260 (S) FIELD EXTRACTED	220.50
99SLRDMD05[993746004]	Semi-Volatiles by GC/MS (S)	385.88
99SLRDMD05[993746004]	Pesticides/PCB's by GC ECD (S)	165.38
99SLRDMB03[993746005]	Lead, SW7421 GF (S)	38.59
[-1]	Level 1 Data Deliverables	149.98
	TOTAL DUE	$1,649.79

CONTROL NO.
R- 42809

CT&E Environmental Services Inc.

CT&E Ref.#	993746001	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:56
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 05:00
Client Sample ID	99SLRDMR07	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep. Date	Analysis Date	Init
^								
Total Solids	88.1		%	SM18 2540G			07/30/99	MPA
Mercury by Cold Vapor	3330	126	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746002	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:56
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 05:05
Client Sample ID	99SLRDMR08	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J. Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	94.6		%	SM18 2540G			07/30/99	MPA
Mercury by Cold Vapor	7220	1090	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746003	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:56
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 02:30
Client Sample ID	99SLRDMG01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windlebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	43.4		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	10300	955	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	27.6	8.28	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	160	41.4	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	44.0	9.55	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.220	0.0414	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.134	0.0414	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	253	95.5	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	12.0	4.14	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	2.61	0.955	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	8.31	0.955	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	12000	478	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	6.79	4.14	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	712	95.5	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	45.4	19.1	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	3.49	0.186	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	5.83	1.91	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	430 U	430	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.414 U	0.414	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.142	0.0828	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	95.5 U	95.5	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.414 U	0.414	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	17.6	9.55	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	13.8	1.91	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 02:50
Client Sample ID	99SLRDMD05	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
8082- Detection limit raised 10X due to matrix interference.
8270 - Internal standard phenanthrene-d10 is biased low. The samples are non-detect. The results are not affected.
8270 - CCV recovery for benzo[g,h,i]perylene is biased low. The results for this compound are estimated.
8270 - Pattern consistent with a lube oil.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	93.1		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	1890	388	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	8.53	3.90	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	1160	195	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	122	3.88	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.692	0.0781	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.296	0.0195	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	6460	3880	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	22.1	1.95	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	22.7	3.88	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	77.2	3.88	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	37500	194	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	13.7	1.95	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	9540	388	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	641	7.77	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	88.0	10.6	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	62.9	7.77	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	863	175	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.406	0.195	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.163	0.0390	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 02:50
Client Sample ID	99SLRDMD05	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Sodium	38.8 U	38.8	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.195 U	0.195	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	25.5	3.88	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	109	7.77	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Chloromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Vinyl chloride	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Bromomethane	0.31 U	0.31	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Chloroethane	0.31 U	0.31	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Trichlorofluoromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,1-Dichloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Carbon disulfide	0.31 U	0.31	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Methylene chloride	0.15 U	0.15	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
trans-1,2-Dichloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,1-Dichloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
2-Butanone (MEK)	0.31 U	0.31	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
2,2-Dichloropropane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
cis-1,2-Dichloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Bromochloromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Chloroform	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,1,1-Trichloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Carbon tetrachloride	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,1-Dichloropropene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Benzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,2-Dichloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Trichloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,2-Dichloropropane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Dibromomethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Bromodichloromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS

CT&E Environmental Services Inc.

CT&E Ref.#	993746004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 02:50
Client Sample ID	99SLRDMD05	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2-chloroethylvinyl ether	0.31 U	0.31	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
cis-1,3-Dichloropropene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
4-Methyl-2-pentanone (MIBK)	0.31 U	0.31	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Toluene	0.0354	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
trans-1,3-Dichloropropene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,1,2-Trichloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Tetrachloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,3-Dichloropropane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
2-Hexanone	0.31 U	0.31	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Dibromochloromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,2-Dibromoethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Chlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,1,1,2-Tetrachloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Ethylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
P & M -Xylene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
o-Xylene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Styrene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Bromoform	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Isopropylbenzene (Cumene)	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Bromobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,1,2,2-Tetrachloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,2,3-Trichloropropane	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
n-Propylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
2-Chlorotoluene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
4-Chlorotoluene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,3,5-Trimethylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
tert-Butylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,2,4-Trimethylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
sec-Butylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,3-Dichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
4-Isopropyltoluene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,4-Dichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 02:50
Client Sample ID	99SLRDMD05	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
1,2-Dichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
n-Butylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,2-Dibromo-3-chloropropane	0.31 U	0.31	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,2,4-Trichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Hexachlorobutadiene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Naphthalene	0.0576	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
1,2,3-Trichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/23/99	08/04/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	100		%	SW846-8260	(74-123)	07/23/99	08/04/99	
Dibromofluoromethane <surr>	93.9		%	SW846-8260	(80-118)	07/23/99	08/04/99	
Toluene-d8 <surr>	104		%	SW846-8260	(79-130)	07/23/99	08/04/99	
4-Bromofluorobenzene <Surr>	78.4		%	SW846-8260	(71-141)	07/23/99	08/04/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Pyridine	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Aniline	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Phenol	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Bis(2-Chloroethyl)ether	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2-Chlorophenol	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
1,3-Dichlorobenzene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
1,4-Dichlorobenzene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Benzyl alcohol	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
1,2-Dichlorobenzene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2-Methylphenol (o-Cresol)	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
bis(2-chloroisopropyl)ether	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
3&4-Methylphenol (p&m-Cresol)	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
N-Nitroso-di-n-propylamine	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Hexachloroethane	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 02:50
Client Sample ID	99SLRDMD05	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Nitrobenzene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Isophorone	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2-Nitrophenol	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2,4-Dimethylphenol	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Benzoic acid	17 U	17	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Bis(2-Chloroethoxy)methane	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
1,2,4-Trichlorobenzene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Naphthalene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
4-Chloroaniline	7.0 U	7.0	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Hexachlorobutadiene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
4-Chloro-3-methylphenol	7.0 U	7.0	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2,4-Dichlorophenol	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2-Methylnaphthalene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Hexachlorocyclopentadiene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2,4,6-Trichlorophenol	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2,4,5-Trichlorophenol	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2-Chloronaphthalene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2-Nitroaniline	17 U	17	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Dimethylphthalate	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Acenaphthylene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2,6-Dinitrotoluene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
3-Nitroaniline	17 U	17	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Acenaphthene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2,4-Dinitrophenol	17 U	17	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
4-Nitrophenol	17 U	17	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Dibenzofuran	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2,4-Dinitrotoluene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Diethylphthalate	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
4-Chlorophenyl-phenylether	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Fluorene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
4-Nitroaniline	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
2-Methyl-4,6-dinitrophenol	17 U	17	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ

CT&E Environmental Services Inc.

CT&E Ref.#	993746004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 02:50
Client Sample ID	99SLRDMD05	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
N-Nitrosodiphenylamine	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
4-Bromophenyl-phenylether	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Hexachlorobenzene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Pentachlorophenol	17 U	17	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Phenanthrene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Anthracene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Di-n-butylphthalate	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Fluoranthene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Pyrene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Azobenzene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Butylbenzylphthalate	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
3,3-Dichlorobenzidine	7.0 U	7.0	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Benzo(a)Anthracene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Chrysene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
bis(2-Ethylhexyl)phthalate	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
di-n-Octylphthalate	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Benzo[b]Fluoranthene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Benzo[k]fluoranthene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Benzo[a]pyrene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Indeno[1,2,3-c,d] pyrene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Dibenzo[a,h]anthracene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Benzo[g,h,i]perylene	3.4 U	3.4	mg/Kg	SW846-8270		08/02/99	08/05/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	41		%	SW846-8270	(18-122)	08/02/99	08/05/99	
Phenol-d6 <Surr>	55.4		%	SW846-8270	(24-88)	08/02/99	08/05/99	
Terphenyl-d14 <Surr>	109		%	SW846-8270	(21-142)	08/02/99	08/05/99	
2-Fluorobiphenyl <Surr>	61.2		%	SW846-8270	(30-103)	08/02/99	08/05/99	
2-Fluorophenol <Surr>	42.1		%	SW846-8270	(18-83)	08/02/99	08/05/99	
Nitrobenzene-d5 <Surr>	61.4		%	SW846-8270	(18-109)	08/02/99	08/05/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 02:50
Client Sample ID	99SLRDMD05	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.0354 U	0.0354	mg/Kg	SW846 8082		07/31/99	08/03/99	WAA
Aroclor-1221	0.0354 U	0.0354	mg/Kg	SW846 8082		07/31/99	08/03/99	WAA
Aroclor-1232	0.0354 U	0.0354	mg/Kg	SW846 8082		07/31/99	08/03/99	WAA
Aroclor-1242	0.0354 U	0.0354	mg/Kg	SW846 8082		07/31/99	08/03/99	WAA
Aroclor-1248	0.0354 U	0.0354	mg/Kg	SW846 8082		07/31/99	08/03/99	WAA
Aroclor-1254	0.0354 U	0.0354	mg/Kg	SW846 8082		07/31/99	08/03/99	WAA
Aroclor-1260	0.0354 U	0.0354	mg/Kg	SW846 8082		07/31/99	08/03/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	61.3		%	SW846 8082	(53.3-125)	07/31/99	08/03/99	
Pesticides								
alpha-BHC	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
beta-BHC	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
gamma-Chlordane	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
alpha-Chlordane	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
gamma-BHC (Lindane)	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
delta-BHC	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Heptachlor	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Aldrin	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Heptachlor epoxide	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Endosulfan I	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
4,4'-DDE	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Dieldrin	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Endrin	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Endosulfan II	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
4,4'-DDD	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 02:50
Client Sample ID	99SLRDMD05	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Endrin aldehyde	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
4,4'-DDT	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Endosulfan sulfate	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Endrin ketone	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Methoxychlor	0.00707 U	0.00707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Toxaphene	0.707 U	0.707	mg/Kg	SW846-8081A		07/31/99	08/08/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	94		%	SW846-8081A	(46-154)	07/31/99	08/08/99	
Tetrachloro-m-xylene <Surr>	68		%	SW846-8081A	(25-120)	07/31/99	08/08/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746005	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/23/99 03:15
Client Sample ID	99SLRDMB03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	94.5		%	SM18 2540G			07/30/99	MPA
Metals by Graphite Furnace								
Lead	1080	206	mg/Kg	SW846-7421		08/09/99	08/11/99	KGF

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746006	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	
Client Sample ID	Trip Blank	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	100		%	SM18 2540G			07/30/99	MPA
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Chloromethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Vinyl chloride	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Bromomethane	0.26 U	0.26	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Chloroethane	0.26 U	0.26	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Trichlorofluoromethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,1-Dichloroethene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Carbon disulfide	0.26 U	0.26	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Methylene chloride	0.13 U	0.13	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
trans-1,2-Dichloroethene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,1-Dichloroethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
2-Butanone (MEK)	0.26 U	0.26	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
2,2-Dichloropropane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
cis-1,2-Dichloroethene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Bromochloromethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Chloroform	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,1,1-Trichloroethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Carbon tetrachloride	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,1-Dichloropropene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Benzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,2-Dichloroethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Trichloroethene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,2-Dichloropropane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS

CT&E Environmental Services Inc.

CT&E Ref.#	993746006	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	
Client Sample ID	Trip Blank	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Dibromomethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Bromodichloromethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
2-chloroethylvinyl ether	0.26 U	0.26	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
cis-1,3-Dichloropropene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
4-Methyl-2-pentanone (MIBK)	0.26 U	0.26	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Toluene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
trans-1,3-Dichloropropene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,1,2-Trichloroethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Tetrachloroethene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,3-Dichloropropane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
2-Hexanone	0.26 U	0.26	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Dibromochloromethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,2-Dibromoethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Chlorobenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,1,1,2-Tetrachloroethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Ethylbenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
P & M -Xylene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
o-Xylene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Styrene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Bromoform	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Isopropylbenzene (Cumene)	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Bromobenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,1,2,2-Tetrachloroethane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,2,3-Trichloropropane	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
n-Propylbenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
2-Chlorotoluene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
4-Chlorotoluene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,3,5-Trimethylbenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
tert-Butylbenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,2,4-Trimethylbenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
sec-Butylbenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,3-Dichlorobenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993746006	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/18/99 11:57
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	
Client Sample ID	Trip Blank	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
4-Isopropyltoluene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,4-Dichlorobenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,2-Dichlorobenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
n-Butylbenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,2-Dibromo-3-chloropropane	0.26 U	0.26	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,2,4-Trichlorobenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Hexachlorobutadiene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Naphthalene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
1,2,3-Trichlorobenzene	0.026 U	0.026	mg/Kg	SW846-8260		08/04/99	08/04/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	106		%	SW846-8260	(74-123)	08/04/99	08/04/99	
Dibromofluoromethane <surr>	98.4		%	SW846-8260	(80-118)	08/04/99	08/04/99	
Toluene-d8 <surr>	103		%	SW846-8260	(79-130)	08/04/99	08/04/99	
4-Bromofluorobenzene <Surr>	95.6		%	SW846-8260	(71-141)	08/04/99	08/04/99	

F-701

CT&E Environmental Services Inc.

Client Harding Lawson & Assoc
Workorder 47411 Red Devil Mine

QC Batch SPT 2849 (63609)
Original
Matrix Soil/Solid **Analysis Method** SM18 2540G

QC results affect the following production samples:

993746001 993746002 993746003 993746004 993746005
993746006

QC results for Method Blank [249562]

Run Instrument:

Parameter	Analyzed	Result	PQL	Units
Total Solids	07/30/99	99.6		%

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	47411 Red Devil Mine
QC Batch	SPT 2849 (63609)
Original	993759003
Matrix	Soil/Solid
Analysis Method	SM18 2540G

QC results affect the following production samples:

993746001 993746002 993746003 993746004 993746005
993746006

QC results for Duplicate [249563]

Parameter	Original Result	QC Result	RPD	RPD Limits	Analyzed	Instru ID
Total Solids	41	42.1	2.7		07/30/99	

F-701

CT&E Environmental Services Inc.
Laboratory Division

Laboratory Analysis Report

Client Harding Lawson & Assoc
Workorder 47411 Red Devil Mine

QC Batch VXX 5443 (63894)
Original
Matrix Soil/Solid

Prep Date 08/04/99 11:45
Analysis Method SW846-8260

QC results affect the following production samples:

993746004 993746006

QC results for Method Blank [250969]

Run Instrument: HP 5890 Series II MS1 VMA

Parameter	Analyzed	Result	PQL	Units
Dichlorodifluoromethane	08/04/99	0.050 U	0.050	mg/Kg
Chloromethane	08/04/99	0.050 U	0.050	mg/Kg
Vinyl chloride	08/04/99	0.050 U	0.050	mg/Kg
Bromomethane	08/04/99	0.50 U	0.50	mg/Kg
Chloroethane	08/04/99	0.50 U	0.50	mg/Kg
Trichlorofluoromethane	08/04/99	0.050 U	0.050	mg/Kg
1,1-Dichloroethene	08/04/99	0.050 U	0.050	mg/Kg
Carbon disulfide	08/04/99	0.50 U	0.50	mg/Kg
Methylene chloride	08/04/99	0.25 U	0.25	mg/Kg
trans-1,2-Dichloroethene	08/04/99	0.050 U	0.050	mg/Kg
1,1-Dichloroethane	08/04/99	0.050 U	0.050	mg/Kg
2-Butanone (MEK)	08/04/99	0.50 U	0.50	mg/Kg
2,2-Dichloropropane	08/04/99	0.050 U	0.050	mg/Kg
cis-1,2-Dichloroethene	08/04/99	0.050 U	0.050	mg/Kg
Bromochloromethane	08/04/99	0.050 U	0.050	mg/Kg
Chloroform	08/04/99	0.050 U	0.050	mg/Kg
1,1,1-Trichloroethane	08/04/99	0.050 U	0.050	mg/Kg
Carbon tetrachloride	08/04/99	0.050 U	0.050	mg/Kg

200 W. Potter Drive, **Anchorage, AK 99518-1605** — Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road, **Fairbanks, AK 99709-5471** — Tel: (907) 474-8656 Fax: (907) 474-9685

ENVIRONMENTAL FACILITIES IN ALASKA, CALIFORNIA, FLORIDA, ILLINOIS, MARYLAND, MICHIGAN, MISSOURI, NEW JERSEY, OHIO, WEST VIRGINIA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Method Blank [250969] (continued)

Run Instrument: HP 5890 Series II MS1 VMA

Parameter	Analyzed	Result	PQL	Units
1,1-Dichloropropene	08/04/99	0.050 U	0.050	mg/Kg
Benzene	08/04/99	0.050 U	0.050	mg/Kg
1,2-Dichloroethane	08/04/99	0.050 U	0.050	mg/Kg
Trichloroethene	08/04/99	0.050 U	0.050	mg/Kg
1,2-Dichloropropane	08/04/99	0.050 U	0.050	mg/Kg
Dibromomethane	08/04/99	0.050 U	0.050	mg/Kg
Bromodichloromethane	08/04/99	0.050 U	0.050	mg/Kg
2-chloroethylvinyl ether	08/04/99	0.50 U	0.50	mg/Kg
cis-1,3-Dichloropropene	08/04/99	0.050 U	0.050	mg/Kg
4-Methyl-2-pentanone (MIBK)	08/04/99	0.50 U	0.50	mg/Kg
Toluene	08/04/99	0.050 U	0.050	mg/Kg
trans-1,3-Dichloropropene	08/04/99	0.050 U	0.050	mg/Kg
1,1,2-Trichloroethane	08/04/99	0.050 U	0.050	mg/Kg
Tetrachloroethene	08/04/99	0.050 U	0.050	mg/Kg
1,3-Dichloropropane	08/04/99	0.050 U	0.050	mg/Kg
2-Hexanone	08/04/99	0.50 U	0.50	mg/Kg
Dibromochloromethane	08/04/99	0.050 U	0.050	mg/Kg
1,2-Dibromoethane	08/04/99	0.050 U	0.050	mg/Kg
Chlorobenzene	08/04/99	0.050 U	0.050	mg/Kg
1,1,1,2-Tetrachloroethane	08/04/99	0.050 U	0.050	mg/Kg
Ethylbenzene	08/04/99	0.050 U	0.050	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Method Blank [250969] (continued)

Run Instrument: HP 5890 Series II MS1 VMA

Parameter	Analyzed	Result	PQL	Units
P & M -Xylene	08/04/99	0.050 U	0.050	mg/Kg
o-Xylene	08/04/99	0.050 U	0.050	mg/Kg
Styrene	08/04/99	0.050 U	0.050	mg/Kg
Bromoform	08/04/99	0.050 U	0.050	mg/Kg
Isopropylbenzene (Cumene)	08/04/99	0.050 U	0.050	mg/Kg
Bromobenzene	08/04/99	0.050 U	0.050	mg/Kg
1,1,2,2-Tetrachloroethane	08/04/99	0.050 U	0.050	mg/Kg
1,2,3-Trichloropropane	08/04/99	0.050 U	0.050	mg/Kg
n-Propylbenzene	08/04/99	0.050 U	0.050	mg/Kg
2-Chlorotoluene	08/04/99	0.050 U	0.050	mg/Kg
4-Chlorotoluene	08/04/99	0.050 U	0.050	mg/Kg
1,3,5-Trimethylbenzene	08/04/99	0.050 U	0.050	mg/Kg
tert-Butylbenzene	08/04/99	0.050 U	0.050	mg/Kg
1,2,4-Trimethylbenzene	08/04/99	0.050 U	0.050	mg/Kg
sec-Butylbenzene	08/04/99	0.050 U	0.050	mg/Kg
1,3-Dichlorobenzene	08/04/99	0.050 U	0.050	mg/Kg
4-Isopropyltoluene	08/04/99	0.050 U	0.050	mg/Kg
1,4-Dichlorobenzene	08/04/99	0.050 U	0.050	mg/Kg
1,2-Dichlorobenzene	08/04/99	0.050 U	0.050	mg/Kg
n-Butylbenzene	08/04/99	0.050 U	0.050	mg/Kg
1,2-Dibromo-3-chloropropane	08/04/99	0.50 U	0.50	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Method Blank [250969] (continued)

Run Instrument: HP 5890 Series II MS1 VMA

Parameter	Analyzed	Result	PQL	Units
1,2,4-Trichlorobenzene	08/04/99	0.050 U	0.050	mg/Kg
Hexachlorobutadiene	08/04/99	0.050 U	0.050	mg/Kg
Naphthalene	08/04/99	0.050 U	0.050	mg/Kg
1,2,3-Trichlorobenzene	08/04/99	0.050 U	0.050	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results affect the following production samples:

993746004 993746006

QC results for Lab Check Standard [250970] - Lab Check Standard Duplicate [250971]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Dichlorodifluoromethane	LCS	0.67	134	13-190			.5mg/Kg	08/04/99	VMA
	LCSD	0.694	139		3.7	0-20	.5mg/Kg	08/04/99	VMA
Chloromethane	LCS	0.545	109	77-140			.5mg/Kg	08/04/99	VMA
	LCSD	0.548	110		.91	0-20	.5mg/Kg	08/04/99	VMA
Vinyl chloride	LCS	0.537	107	76-137			.5mg/Kg	08/04/99	VMA
	LCSD	0.559	112		4.6	0-20	.5mg/Kg	08/04/99	VMA
Bromomethane	LCS	0.747	149	65-181			.5mg/Kg	08/04/99	VMA
	LCSD	0.88	176		16.6	0-20	.5mg/Kg	08/04/99	VMA
Chloroethane	LCS	0.74	148	64-174			.5mg/Kg	08/04/99	VMA
	LCSD	0.892	178		18.4	0-20	.5mg/Kg	08/04/99	VMA
Trichlorofluoromethane	LCS	0.545	109	56-147			.5mg/Kg	08/04/99	VMA
	LCSD	0.564	113		3.6	0-20	.5mg/Kg	08/04/99	VMA
1,1-Dichloroethene	LCS	0.563	113	75-123			.5mg/Kg	08/04/99	VMA
	LCSD	0.571	114		.88	0-20	.5mg/Kg	08/04/99	VMA
Carbon disulfide	LCS	0.717	95.5	67-140			.75mg/Kg	08/04/99	VMA
	LCSD	0.715	95.3		.21	0-20	.75mg/Kg	08/04/99	VMA
Methylene chloride	LCS	0.54	108	53-155			.5mg/Kg	08/04/99	VMA
	LCSD	0.552	110		1.8	0-20	.5mg/Kg	08/04/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [250970] - Lab Check Standard Duplicate [250971] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
trans-1,2-Dichloroethene	LCS	0.548	110	78-126			.5mg/Kg	08/04/99	VMA
	LCSD	0.567	113		2.7	0-20	.5mg/Kg	08/04/99	VMA
1,1-Dichloroethane	LCS	0.512	102	74-130			.5mg/Kg	08/04/99	VMA
	LCSD	0.519	104		1.9	0-20	.5mg/Kg	08/04/99	VMA
2-Butanone (MEK)	LCS	0.712	94.9	75-124			.75mg/Kg	08/04/99	VMA
	LCSD	0.699	93.1		1.9	0-20	.75mg/Kg	08/04/99	VMA
2,2-Dichloropropane	LCS	0.508	102	88-131			.5mg/Kg	08/04/99	VMA
	LCSD	0.522	104		1.9	0-20	.5mg/Kg	08/04/99	VMA
cis-1,2-Dichloroethene	LCS	0.565	113	84-124			.5mg/Kg	08/04/99	VMA
	LCSD	0.566	113		0	0-20	.5mg/Kg	08/04/99	VMA
Bromochloromethane	LCS	0.564	113	81-131			.5mg/Kg	08/04/99	VMA
	LCSD	0.576	115		1.8	0-20	.5mg/Kg	08/04/99	VMA
Chloroform	LCS	0.532	106	89-123			.5mg/Kg	08/04/99	VMA
	LCSD	0.549	110		3.7	0-20	.5mg/Kg	08/04/99	VMA
1,1,1-Trichloroethane	LCS	0.561	112	85-131			.5mg/Kg	08/04/99	VMA
	LCSD	0.572	114		1.8	0-20	.5mg/Kg	08/04/99	VMA
Carbon tetrachloride	LCS	0.569	114	76-139			.5mg/Kg	08/04/99	VMA
	LCSD	0.591	118		3.4	0-20	.5mg/Kg	08/04/99	VMA
1,1-Dichloropropene	LCS	0.573	115	92-136			.5mg/Kg	08/04/99	VMA
	LCSD	0.584	117		1.7	0-20	.5mg/Kg	08/04/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [250970] - Lab Check Standard Duplicate [250971] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Benzene	LCS	0.531	106	84-117			.5mg/Kg	08/04/99	VMA
	LCSD	0.537	107		.94	0-20	.5mg/Kg	08/04/99	VMA
1,2-Dichloroethane	LCS	0.534	107	84-135			.5mg/Kg	08/04/99	VMA
	LCSD	0.552	110		2.8	0-20	.5mg/Kg	08/04/99	VMA
Trichloroethene	LCS	0.541	108	89-126			.5mg/Kg	08/04/99	VMA
	LCSD	0.547	109		.92	0-20	.5mg/Kg	08/04/99	VMA
1,2-Dichloropropane	LCS	0.561	112	94-124			.5mg/Kg	08/04/99	VMA
	LCSD	0.579	116		3.5	0-20	.5mg/Kg	08/04/99	VMA
Dibromomethane	LCS	0.532	106	86-124			.5mg/Kg	08/04/99	VMA
	LCSD	0.549	110		3.7	0-20	.5mg/Kg	08/04/99	VMA
Bromodichloromethane	LCS	0.526	105	80-121			.5mg/Kg	08/04/99	VMA
	LCSD	0.541	108		2.8	0-20	.5mg/Kg	08/04/99	VMA
2-chloroethylvinyl ether	LCS	0.738	98.3	78-122			.75mg/Kg	08/04/99	VMA
	LCSD	0.726	96.8		1.5	0-20	.75mg/Kg	08/04/99	VMA
cis-1,3-Dichloropropene	LCS	0.509	102	85-114			.5mg/Kg	08/04/99	VMA
	LCSD	0.52	104		1.9	0-20	.5mg/Kg	08/04/99	VMA
4-Methyl-2-pentanone (MIBK)	LCS	0.682	90.9	62-131			.75mg/Kg	08/04/99	VMA
	LCSD	0.748	99.7		9.2	0-20	.75mg/Kg	08/04/99	VMA
Toluene	LCS	0.533	107	73-125			.5mg/Kg	08/04/99	VMA
	LCSD	0.541	108		.93	0-20	.5mg/Kg	08/04/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [250970] - Lab Check Standard Duplicate [250971] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
trans-1,3-Dichloropropene	LCS	0.505	101	83-116			.5mg/Kg	08/04/99	VMA
	LCSD	0.52	104		2.9	0-20	.5mg/Kg	08/04/99	VMA
1,1,2-Trichloroethane	LCS	0.534	107	87-121			.5mg/Kg	08/04/99	VMA
	LCSD	0.557	111		3.7	0-20	.5mg/Kg	08/04/99	VMA
Tetrachloroethene	LCS	0.554	111	71-139			.5mg/Kg	08/04/99	VMA
	LCSD	0.556	111		0	0-20	.5mg/Kg	08/04/99	VMA
1,3-Dichloropropane	LCS	0.514	103	84-121			.5mg/Kg	08/04/99	VMA
	LCSD	0.535	107		3.8	0-20	.5mg/Kg	08/04/99	VMA
2-Hexanone	LCS	0.688	91.7	64-130			.75mg/Kg	08/04/99	VMA
	LCSD	0.696	92.7		1.1	0-20	.75mg/Kg	08/04/99	VMA
Dibromochloromethane	LCS	0.555	111	71-136			.5mg/Kg	08/04/99	VMA
	LCSD	0.562	112		.9	0-20	.5mg/Kg	08/04/99	VMA
1,2-Dibromoethane	LCS	0.564	113	82-129			.5mg/Kg	08/04/99	VMA
	LCSD	0.578	116		2.6	0-20	.5mg/Kg	08/04/99	VMA
Chlorobenzene	LCS	0.522	104	80-122			.5mg/Kg	08/04/99	VMA
	LCSD	0.511	102		1.9	0-20	.5mg/Kg	08/04/99	VMA
1,1,1,2-Tetrachloroethane	LCS	0.561	112	83-128			.5mg/Kg	08/04/99	VMA
	LCSD	0.555	111		.9	0-20	.5mg/Kg	08/04/99	VMA
Ethylbenzene	LCS	0.531	106	82-122			.5mg/Kg	08/04/99	VMA
	LCSD	0.522	104		1.9	0-20	.5mg/Kg	08/04/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [250970] - Lab Check Standard Duplicate [250971] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
P & M -Xylene	LCS	1.06	106	83-120			1mg/Kg	08/04/99	VMA
	LCSD	1.05	105		.95	0-20	1mg/Kg	08/04/99	VMA
o-Xylene	LCS	0.529	106	82-120			.5mg/Kg	08/04/99	VMA
	LCSD	0.51	102		3.8	0-20	.5mg/Kg	08/04/99	VMA
Styrene	LCS	0.552	110	82-124			.5mg/Kg	08/04/99	VMA
	LCSD	0.53	106		3.7	0-20	.5mg/Kg	08/04/99	VMA
Bromoform	LCS	0.537	107	73-127			.5mg/Kg	08/04/99	VMA
	LCSD	0.535	107		0	0-20	.5mg/Kg	08/04/99	VMA
Isopropylbenzene (Cumene)	LCS	0.51	102	78-130			.5mg/Kg	08/04/99	VMA
	LCSD	0.505	101		.99	0-20	.5mg/Kg	08/04/99	VMA
Bromobenzene	LCS	0.554	111	85-121			.5mg/Kg	08/04/99	VMA
	LCSD	0.533	107		3.7	0-20	.5mg/Kg	08/04/99	VMA
1,1,2,2-Tetrachloroethane	LCS	0.538	108	72-135			.5mg/Kg	08/04/99	VMA
	LCSD	0.54	108		0	0-20	.5mg/Kg	08/04/99	VMA
1,2,3-Trichloropropane	LCS	0.53	106	67-141			.5mg/Kg	08/04/99	VMA
	LCSD	0.533	107		.94	0-20	.5mg/Kg	08/04/99	VMA
n-Propylbenzene	LCS	0.524	105	67-136			.5mg/Kg	08/04/99	VMA
	LCSD	0.51	102		2.9	0-20	.5mg/Kg	08/04/99	VMA
2-Chlorotoluene	LCS	0.507	101	74-138			.5mg/Kg	08/04/99	VMA
	LCSD	0.497	99.4		1.6	0-20	.5mg/Kg	08/04/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [250970] - Lab Check Standard Duplicate [250971] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
4-Chlorotoluene	LCS	0.501	100	71-137			.5mg/Kg	08/04/99	VMA
	LCSD	0.475	94.9		5.2	0-20	.5mg/Kg	08/04/99	VMA
1,3,5-Trimethylbenzene	LCS	0.538	108	75-132			.5mg/Kg	08/04/99	VMA
	LCSD	0.525	105		2.8	0-20	.5mg/Kg	08/04/99	VMA
tert-Butylbenzene	LCS	0.526	105	68-134			.5mg/Kg	08/04/99	VMA
	LCSD	0.521	104		.96	0-20	.5mg/Kg	08/04/99	VMA
1,2,4-Trimethylbenzene	LCS	0.533	107	79-131			.5mg/Kg	08/04/99	VMA
	LCSD	0.536	107		0	0-20	.5mg/Kg	08/04/99	VMA
sec-Butylbenzene	LCS	0.521	104	78-136			.5mg/Kg	08/04/99	VMA
	LCSD	0.52	104		0	0-20	.5mg/Kg	08/04/99	VMA
1,3-Dichlorobenzene	LCS	0.511	102	78-126			.5mg/Kg	08/04/99	VMA
	LCSD	0.497	99.4		2.6	0-20	.5mg/Kg	08/04/99	VMA
4-Isopropyltoluene	LCS	0.528	106	70-133			.5mg/Kg	08/04/99	VMA
	LCSD	0.512	102		3.8	0-20	.5mg/Kg	08/04/99	VMA
1,4-Dichlorobenzene	LCS	0.474	94.7	77-132			.5mg/Kg	08/04/99	VMA
	LCSD	0.453	90.5		4.5	0-20	.5mg/Kg	08/04/99	VMA
1,2-Dichlorobenzene	LCS	0.537	107	93-122			.5mg/Kg	08/04/99	VMA
	LCSD	0.535	107		0	0-20	.5mg/Kg	08/04/99	VMA
n-Butylbenzene	LCS	0.547	109	81-141			.5mg/Kg	08/04/99	VMA
	LCSD	0.544	109		0	0-20	.5mg/Kg	08/04/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5443 (63894)		
Original		**Prep Date**	08/04/99 11:45
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [250970] - Lab Check Standard Duplicate [250971] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
1,2-Dibromo-3-chloropropane	LCS	0.505	101	60-144			.5mg/Kg	08/04/99	VMA
	LCSD	0.518	104		2.9	0-20	.5mg/Kg	08/04/99	VMA
1,2,4-Trichlorobenzene	LCS	0.556	111	86-129			.5mg/Kg	08/04/99	VMA
	LCSD	0.557	111		0	0-20	.5mg/Kg	08/04/99	VMA
Hexachlorobutadiene	LCS	0.566	113	80-152			.5mg/Kg	08/04/99	VMA
	LCSD	0.57	114		.88	0-20	.5mg/Kg	08/04/99	VMA
Naphthalene	LCS	0.552	110	80-130			.5mg/Kg	08/04/99	VMA
	LCSD	0.567	113		2.7	0-20	.5mg/Kg	08/04/99	VMA
1,2,3-Trichlorobenzene	LCS	0.545	109	81-132			.5mg/Kg	08/04/99	VMA
	LCSD	0.565	113		3.6	0-20	.5mg/Kg	08/04/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5795 (63685)			
Original		**Prep Date**	07/31/99 14:00	
Matrix	Soil/Solid	**Analysis Method**	SW846 8082	PCB's

QC results affect the following production samples:

993746004

QC results for Method Blank [249899]

Run Instrument: HP 5890 Series II ECD SV H R

Parameter	Analyzed	Result	PQL	Units
Aroclor-1016	08/03/99	0.00319 U	0.00319	mg/Kg
Aroclor-1221	08/03/99	0.00319 U	0.00319	mg/Kg
Aroclor-1232	08/03/99	0.00319 U	0.00319	mg/Kg
Aroclor-1242	08/03/99	0.00319 U	0.00319	mg/Kg
Aroclor-1248	08/03/99	0.00319 U	0.00319	mg/Kg
Aroclor-1254	08/03/99	0.00319 U	0.00319	mg/Kg
Aroclor-1260	08/03/99	0.00319 U	0.00319	mg/Kg
alpha-BHC	08/05/99	0.000319 U	0.000319	mg/Kg
beta-BHC	08/05/99	0.000319 U	0.000319	mg/Kg
gamma-Chlordane	08/05/99	0.000319 U	0.000319	mg/Kg
alpha-Chlordane	08/05/99	0.000319 U	0.000319	mg/Kg
gamma-BHC (Lindane)	08/05/99	0.000319 U	0.000319	mg/Kg
delta-BHC	08/05/99	0.000319 U	0.000319	mg/Kg
Heptachlor	08/05/99	0.000319 U	0.000319	mg/Kg
Aldrin	08/05/99	0.000319 U	0.000319	mg/Kg
Heptachlor epoxide	08/05/99	0.000319 U	0.000319	mg/Kg
Endosulfan I	08/05/99	0.000319 U	0.000319	mg/Kg
4,4'-DDE	08/05/99	0.000319 U	0.000319	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5795 (63685)			
Original		**Prep Date**	07/31/99 14:00	
Matrix	Soil/Solid	**Analysis Method**	SW846 8082	PCB's

QC results for Method Blank [249899] (continued)

Run Instrument: HP 5890 Series II ECD SV H R

Parameter	Analyzed	Result	PQL	Units
Dieldrin	08/05/99	0.000319 U	0.000319	mg/Kg
Endrin	08/05/99	0.000319 U	0.000319	mg/Kg
Endosulfan II	08/05/99	0.000319 U	0.000319	mg/Kg
4,4'-DDD	08/05/99	0.000319 U	0.000319	mg/Kg
Endrin aldehyde	08/05/99	0.000319 U	0.000319	mg/Kg
4,4'-DDT	08/05/99	0.000319 U	0.000319	mg/Kg
Endosulfan sulfate	08/05/99	0.000319 U	0.000319	mg/Kg
Endrin ketone	08/05/99	0.000319 U	0.000319	mg/Kg
Methoxychlor	08/05/99	0.000319 U	0.000319	mg/Kg
Toxaphene	08/05/99	0.0319 U	0.0319	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5795 (63685)		
Original		**Prep Date**	07/31/99 14:00
Matrix	Soil/Solid	**Analysis Method**	SW846-8081A Pesticides

QC results affect the following production samples:

993746004

QC results for Lab Check Standard [249900] - Lab Check Standard Duplicate [249901]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
alpha-BHC	LCS	0.00229	77	41-129			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00223	73		5.3	0-30	.00298mg/Kg	08/05/99	SJF
beta-BHC	LCS	0.00232	78	45-149			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00232	76		2.6	0-30	.00298mg/Kg	08/05/99	SJF
gamma-Chlordane	LCS	0.00208	70	47-133			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00214	70		0	0-30	.00298mg/Kg	08/05/99	SJF
alpha-Chlordane	LCS	0.0022	74	50-143			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00226	74		0	0-30	.00298mg/Kg	08/05/99	SJF
gamma-BHC (Lindane)	LCS	0.00226	76	45-137			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00223	73		4	0-30	.00298mg/Kg	08/05/99	SJF
delta-BHC	LCS	0.00223	75	46-146			.00298mg/Kg	08/05/99	SJF
	LCSD	0.0022	72		4.1	0-30	.00298mg/Kg	08/05/99	SJF
Heptachlor	LCS	0.00244	82	48-134			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00245	80		2.5	0-30	.00298mg/Kg	08/05/99	SJF
Aldrin	LCS	0.0022	74	43-139			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00217	71		4.1	0-30	.00298mg/Kg	08/05/99	SJF
Heptachlor epoxide	LCS	0.00226	76	48-142			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00232	76		0	0-30	.00298mg/Kg	08/05/99	SJF

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5795 (63685)			
Original		**Prep Date**	07/31/99 14:00	
Matrix	Soil/Solid	**Analysis Method**	SW846-8081A	Pesticides

QC results for Lab Check Standard [249900] - Lab Check Standard Duplicate [249901] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Endosulfan I	LCS	0.00232	78	47-135			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00239	78		0	0-30	.00298mg/Kg	08/05/99	SJF
4,4'-DDE	LCS	0.00217	73	47-140			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00229	75		2.7	0-30	.00298mg/Kg	08/05/99	SJF
Dieldrin	LCS	0.00211	71	47-135			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00226	74		4.1	0-30	.00298mg/Kg	08/05/99	SJF
Endrin	LCS	0.00214	72	58-147			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00226	74		2.7	0-30	.00298mg/Kg	08/05/99	SJF
Endosulfan II	LCS	0.00223	75	55-134			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00229	75		0	0-30	.00298mg/Kg	08/05/99	SJF
4,4'-DDD	LCS	0.00247	83	43-159			.00298mg/Kg	08/05/99	SJF
	LCSD	0.0026	85		2.4	0-30	.00298mg/Kg	08/05/99	SJF
Endrin aldehyde	LCS	0.00167	56	39-141			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00214	70		22.2	0-30	.00298mg/Kg	08/05/99	SJF
4,4'-DDT	LCS	0.00223	75	50-139			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00239	78		3.9	0-30	.00298mg/Kg	08/05/99	SJF
Endosulfan sulfate	LCS	0.00238	80	51-160			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00254	83		3.7	0-30	.00298mg/Kg	08/05/99	SJF
Endrin ketone	LCS	0.00244	82	54-138			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00251	82		0	0-30	.00298mg/Kg	08/05/99	SJF

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5795 (63685)			
Original		**Prep Date**	07/31/99 14:00	
Matrix	Soil/Solid	**Analysis Method**	SW846-8081A	Pesticides

QC results for Lab Check Standard [249900] - Lab Check Standard Duplicate [249901] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Methoxychlor	LCS	0.00238	80	53-159			.00298mg/Kg	08/05/99	SJF
	LCSD	0.00235	77		3.8	0-30	.00298mg/Kg	08/05/99	SJF

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5795 (63685)			
Original		**Prep Date**	07/31/99 14:00	
Matrix	Soil/Solid	**Analysis Method**	SW846 8082	PCB's

QC results affect the following production samples:

993746004

QC results for Lab Check Standard [249902] - Lab Check Standard Duplicate [249903]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aroclor-1016	LCS	0.0303	92.4	51-115			.0328mg/Kg	08/03/99	SHR
	LCSD	0.0287	91.4		1.1	0-30	.0328mg/Kg	08/03/99	SHR
Aroclor-1260	LCS	0.0277	84.5	51-115			.0328mg/Kg	08/03/99	SHR
	LCSD	0.0257	81.8		3.2	0-30	.0328mg/Kg	08/03/99	SHR

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results affect the following production samples:

993746004

QC results for Method Blank [250458]

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
N-Nitrosodimethylamine	08/04/99	0.058 U	0.058	mg/Kg
Pyridine	08/04/99	0.058 U	0.058	mg/Kg
Aniline	08/04/99	0.058 U	0.058	mg/Kg
Phenol	08/04/99	0.058 U	0.058	mg/Kg
Bis(2-Chloroethyl)ether	08/04/99	0.058 U	0.058	mg/Kg
2-Chlorophenol	08/04/99	0.058 U	0.058	mg/Kg
1,3-Dichlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
1,4-Dichlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
Benzyl alcohol	08/04/99	0.058 U	0.058	mg/Kg
1,2-Dichlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
2-Methylphenol (o-Cresol)	08/04/99	0.058 U	0.058	mg/Kg
bis(2-chloroisopropyl)ether	08/04/99	0.058 U	0.058	mg/Kg
3&4-Methylphenol (p&m-Cresol)	08/04/99	0.058 U	0.058	mg/Kg
N-Nitroso-di-n-propylamine	08/04/99	0.058 U	0.058	mg/Kg
Hexachloroethane	08/04/99	0.058 U	0.058	mg/Kg
Nitrobenzene	08/04/99	0.058 U	0.058	mg/Kg
Isophorone	08/04/99	0.058 U	0.058	mg/Kg
2-Nitrophenol	08/04/99	0.058 U	0.058	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Method Blank [250458] (continued)

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
2,4-Dimethylphenol	08/04/99	0.058 U	0.058	mg/Kg
Benzoic acid	08/04/99	0.29 U	0.29	mg/Kg
Bis(2-Chloroethoxy)methane	08/04/99	0.058 U	0.058	mg/Kg
1,2,4-Trichlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
Naphthalene	08/04/99	0.058 U	0.058	mg/Kg
4-Chloroaniline	08/04/99	0.11 U	0.11	mg/Kg
Hexachlorobutadiene	08/04/99	0.058 U	0.058	mg/Kg
4-Chloro-3-methylphenol	08/04/99	0.11 U	0.11	mg/Kg
2,4-Dichlorophenol	08/04/99	0.058 U	0.058	mg/Kg
2-Methylnaphthalene	08/04/99	0.058 U	0.058	mg/Kg
Hexachlorocyclopentadiene	08/04/99	0.058 U	0.058	mg/Kg
2,4,6-Trichlorophenol	08/04/99	0.058 U	0.058	mg/Kg
2,4,5-Trichlorophenol	08/04/99	0.058 U	0.058	mg/Kg
2-Chloronaphthalene	08/04/99	0.058 U	0.058	mg/Kg
2-Nitroaniline	08/04/99	0.29 U	0.29	mg/Kg
Dimethylphthalate	08/04/99	0.058 U	0.058	mg/Kg
Acenaphthylene	08/04/99	0.058 U	0.058	mg/Kg
2,6-Dinitrotoluene	08/04/99	0.058 U	0.058	mg/Kg
3-Nitroaniline	08/04/99	0.29 U	0.29	mg/Kg
Acenaphthene	08/04/99	0.058 U	0.058	mg/Kg
2,4-Dinitrophenol	08/04/99	0.29 U	0.29	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Method Blank [250458] (continued)

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
4-Nitrophenol	08/04/99	0.29 U	0.29	mg/Kg
Dibenzofuran	08/04/99	0.058 U	0.058	mg/Kg
2,4-Dinitrotoluene	08/04/99	0.058 U	0.058	mg/Kg
Diethylphthalate	08/04/99	0.058 U	0.058	mg/Kg
4-Chlorophenyl-phenylether	08/04/99	0.058 U	0.058	mg/Kg
Fluorene	08/04/99	0.058 U	0.058	mg/Kg
4-Nitroaniline	08/04/99	0.058 U	0.058	mg/Kg
2-Methyl-4,6-dinitrophenol	08/04/99	0.29 U	0.29	mg/Kg
N-Nitrosodiphenylamine	08/04/99	0.058 U	0.058	mg/Kg
4-Bromophenyl-phenylether	08/04/99	0.058 U	0.058	mg/Kg
Hexachlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
Pentachlorophenol	08/04/99	0.29 U	0.29	mg/Kg
Phenanthrene	08/04/99	0.058 U	0.058	mg/Kg
Anthracene	08/04/99	0.058 U	0.058	mg/Kg
Di-n-butylphthalate	08/04/99	0.058 U	0.058	mg/Kg
Fluoranthene	08/04/99	0.058 U	0.058	mg/Kg
Pyrene	08/04/99	0.058 U	0.058	mg/Kg
Azobenzene	08/04/99	0.058 U	0.058	mg/Kg
Butylbenzylphthalate	08/04/99	0.058 U	0.058	mg/Kg
3,3-Dichlorobenzidine	08/04/99	0.11 U	0.11	mg/Kg
Benzo(a)Anthracene	08/04/99	0.058 U	0.058	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Method Blank [250458] (continued)

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
Chrysene	08/04/99	0.058 U	0.058	mg/Kg
bis(2-Ethylhexyl)phthalate	08/04/99	0.058 U	0.058	mg/Kg
di-n-Octylphthalate	08/04/99	0.058 U	0.058	mg/Kg
Benzo[b]Fluoranthene	08/04/99	0.058 U	0.058	mg/Kg
Benzo[k]fluoranthene	08/04/99	0.058 U	0.058	mg/Kg
Benzo[a]pyrene	08/04/99	0.058 U	0.058	mg/Kg
Indeno[1,2,3-c,d] pyrene	08/04/99	0.058 U	0.058	mg/Kg
Dibenzo[a,h]anthracene	08/04/99	0.058 U	0.058	mg/Kg
Benzo[g,h,i]perylene	08/04/99	0.058 U	0.058	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results affect the following production samples:

993746004

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
N-Nitrosodimethylamine	LCS	2.92	95.5	31-84			3.06mg/Kg	08/04/99	SPA
	LCSD	1.74	59.1		47.1	0-30	3.06mg/Kg	08/04/99	SPA
Pyridine	LCS	0.405	13.2	10-32			3.06mg/Kg	08/04/99	SPA
	LCSD	0.173	5.9		76.4	0-30	3.06mg/Kg	08/04/99	SPA
Aniline	LCS	6.14	201	16-66			3.06mg/Kg	08/04/99	SPA
	LCSD	3.07	104		63.6	0-30	3.06mg/Kg	08/04/99	SPA
Phenol	LCS	2.64	86.2	38-83			3.06mg/Kg	08/04/99	SPA
	LCSD	1.49	50.8		51.7	0-30	3.06mg/Kg	08/04/99	SPA
Bis(2-Chloroethyl)ether	LCS	2.98	97.5	33-84			3.06mg/Kg	08/04/99	SPA
	LCSD	1.75	59.5		48.4	0-30	3.06mg/Kg	08/04/99	SPA
2-Chlorophenol	LCS	2.15	70.3	34-85			3.06mg/Kg	08/04/99	SPA
	LCSD	1.26	43		48.2	0-30	3.06mg/Kg	08/04/99	SPA
1,3-Dichlorobenzene	LCS	1.87	61.1	33-83			3.06mg/Kg	08/04/99	SPA
	LCSD	1.09	37		49.1	0-30	3.06mg/Kg	08/04/99	SPA
1,4-Dichlorobenzene	LCS	2.04	66.8	32-87			3.06mg/Kg	08/04/99	SPA
	LCSD	1.19	40.4		49.3	0-30	3.06mg/Kg	08/04/99	SPA
Benzyl alcohol	LCS	2.98	97.3	36-100			3.06mg/Kg	08/04/99	SPA
	LCSD	1.59	54		57.2	0-30	3.06mg/Kg	08/04/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
1,2-Dichlorobenzene	LCS	2.04	66.6	34-85			3.06mg/Kg	08/04/99	SPA
	LCSD	1.19	40.3		49.2	0-30	3.06mg/Kg	08/04/99	SPA
2-Methylphenol (o-Cresol)	LCS	2.61	85.4	39-91			3.06mg/Kg	08/04/99	SPA
	LCSD	1.48	50.5		51.4	0-30	3.06mg/Kg	08/04/99	SPA
bis(2-chloroisopropyl)ether	LCS	3.77	123	43-103			3.06mg/Kg	08/04/99	SPA
	LCSD	2.23	75.7		47.6	0-30	3.06mg/Kg	08/04/99	SPA
3&4-Methylphenol (p&m-Cresol)	LCS	3.93	91.7	44-101			4.28mg/Kg	08/04/99	SPA
	LCSD	2.21	53.7		52.3	0-30	4.28mg/Kg	08/04/99	SPA
N-Nitroso-di-n-propylamine	LCS	2.65	86.6	40-90			3.06mg/Kg	08/04/99	SPA
	LCSD	1.46	49.5		54.5	0-30	3.06mg/Kg	08/04/99	SPA
Hexachloroethane	LCS	2.06	67.3	32-87			3.06mg/Kg	08/04/99	SPA
	LCSD	1.22	41.6		47.2	0-30	3.06mg/Kg	08/04/99	SPA
Nitrobenzene	LCS	2.55	83.5	40-88			3.06mg/Kg	08/04/99	SPA
	LCSD	1.5	51		48.3	0-30	3.06mg/Kg	08/04/99	SPA
Isophorone	LCS	3.29	108	45-91			3.06mg/Kg	08/04/99	SPA
	LCSD	1.8	61.3		55.2	0-30	3.06mg/Kg	08/04/99	SPA
2-Nitrophenol	LCS	2.26	74	40-86			3.06mg/Kg	08/04/99	SPA
	LCSD	1.26	42.9		53.2	0-30	3.06mg/Kg	08/04/99	SPA
2,4-Dimethylphenol	LCS	2.89	94.5	42-88			3.06mg/Kg	08/04/99	SPA
	LCSD	1.61	54.6		53.5	0-30	3.06mg/Kg	08/04/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Benzoic acid	LCS	2.43	56.8	12-58			4.28mg/Kg	08/04/99	SPA
	LCSD	1.48	36		44.8	0-30	4.28mg/Kg	08/04/99	SPA
Bis(2-Chloroethoxy)methane	LCS	2.75	89.8	41-92			3.06mg/Kg	08/04/99	SPA
	LCSD	1.54	52.4		52.6	0-30	3.06mg/Kg	08/04/99	SPA
1,2,4-Trichlorobenzene	LCS	2.01	65.8	35-89			3.06mg/Kg	08/04/99	SPA
	LCSD	1.13	38.5		52.3	0-30	3.06mg/Kg	08/04/99	SPA
Naphthalene	LCS	2.24	73.3	39-91			3.06mg/Kg	08/04/99	SPA
	LCSD	1.32	45.1		47.6	0-30	3.06mg/Kg	08/04/99	SPA
4-Chloroaniline	LCS	2.61	85.3	36-86			3.06mg/Kg	08/04/99	SPA
	LCSD	1.17	39.9		72.5	0-30	3.06mg/Kg	08/04/99	SPA
Hexachlorobutadiene	LCS	2.04	66.7	34-93			3.06mg/Kg	08/04/99	SPA
	LCSD	1.11	37.8		55.3	0-30	3.06mg/Kg	08/04/99	SPA
4-Chloro-3-methylphenol	LCS	3.02	98.7	50-92			3.06mg/Kg	08/04/99	SPA
	LCSD	1.66	56.4		54.5	0-30	3.06mg/Kg	08/04/99	SPA
2,4-Dichlorophenol	LCS	2.4	78.5	10-110			3.06mg/Kg	08/04/99	SPA
	LCSD	1.27	43.3		57.8	0-30	3.06mg/Kg	08/04/99	SPA
2-Methylnaphthalene	LCS	2.37	77.3	40-88			3.06mg/Kg	08/04/99	SPA
	LCSD	1.33	45.3		52.2	0-30	3.06mg/Kg	08/04/99	SPA
Hexachlorocyclopentadiene	LCS	1.92	62.8	30-96			3.06mg/Kg	08/04/99	SPA
	LCSD	0.995	33.8		60	0-30	3.06mg/Kg	08/04/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
2,4,6-Trichlorophenol	LCS	2.92	95.4	47-98			3.06mg/Kg	08/04/99	SPA
	LCSD	1.61	54.8		54.1	0-30	3.06mg/Kg	08/04/99	SPA
2,4,5-Trichlorophenol	LCS	2.96	96.9	46-99			3.06mg/Kg	08/04/99	SPA
	LCSD	1.67	56.8		52.2	0-30	3.06mg/Kg	08/04/99	SPA
2-Chloronaphthalene	LCS	2.55	83.5	39-95			3.06mg/Kg	08/04/99	SPA
	LCSD	1.47	50		50.2	0-30	3.06mg/Kg	08/04/99	SPA
2-Nitroaniline	LCS	3.06	100	55-100			3.06mg/Kg	08/04/99	SPA
	LCSD	1.93	65.5		41.7	0-30	3.06mg/Kg	08/04/99	SPA
Dimethylphthalate	LCS	2.86	93.4	55-94			3.06mg/Kg	08/04/99	SPA
	LCSD	1.85	63.1		38.7	0-30	3.06mg/Kg	08/04/99	SPA
Acenaphthylene	LCS	2.76	90.2	50-96			3.06mg/Kg	08/04/99	SPA
	LCSD	1.66	56.5		45.9	0-30	3.06mg/Kg	08/04/99	SPA
2,6-Dinitrotoluene	LCS	2.94	96	58-102			3.06mg/Kg	08/04/99	SPA
	LCSD	1.88	64		40	0-30	3.06mg/Kg	08/04/99	SPA
3-Nitroaniline	LCS	2.9	94.8	56-103			3.06mg/Kg	08/04/99	SPA
	LCSD	1.89	64.4		38.2	0-30	3.06mg/Kg	08/04/99	SPA
Acenaphthene	LCS	2.74	89.5	49-97			3.06mg/Kg	08/04/99	SPA
	LCSD	1.6	54.4		48.8	0-30	3.06mg/Kg	08/04/99	SPA
2,4-Dinitrophenol	LCS	3.77	68.4	23-156			5.51mg/Kg	08/04/99	SPA
	LCSD	2.39	45.2		40.8	0-30	5.51mg/Kg	08/04/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
4-Nitrophenol	LCS	4.84	113	48-104			4.28mg/Kg	08/04/99	SPA
	LCSD	3.28	79.8		34.4	0-30	4.28mg/Kg	08/04/99	SPA
Dibenzofuran	LCS	2.81	92	51-97			3.06mg/Kg	08/04/99	SPA
	LCSD	1.71	58.2		45	0-30	3.06mg/Kg	08/04/99	SPA
2,4-Dinitrotoluene	LCS	2.87	93.7	62-101			3.06mg/Kg	08/04/99	SPA
	LCSD	1.96	66.6		33.8	0-30	3.06mg/Kg	08/04/99	SPA
Diethylphthalate	LCS	2.86	93.4	58-92			3.06mg/Kg	08/04/99	SPA
	LCSD	1.94	66		34.4	0-30	3.06mg/Kg	08/04/99	SPA
4-Chlorophenyl-phenylether	LCS	2.94	96.1	50-96			3.06mg/Kg	08/04/99	SPA
	LCSD	1.78	60.6		45.3	0-30	3.06mg/Kg	08/04/99	SPA
Fluorene	LCS	2.97	97.1	52-98			3.06mg/Kg	08/04/99	SPA
	LCSD	1.91	65		39.6	0-30	3.06mg/Kg	08/04/99	SPA
4-Nitroaniline	LCS	3.2	105	54-110			3.06mg/Kg	08/04/99	SPA
	LCSD	2.13	72.5		36.6	0-30	3.06mg/Kg	08/04/99	SPA
2-Methyl-4,6-dinitrophenol	LCS	4.99	90.6	68-110			5.51mg/Kg	08/04/99	SPA
	LCSD	3.16	59.7		41.1	0-30	5.51mg/Kg	08/04/99	SPA
N-Nitrosodiphenylamine	LCS	3.09	101	61-100			3.06mg/Kg	08/04/99	SPA
	LCSD	1.96	66.6		41.1	0-30	3.06mg/Kg	08/04/99	SPA
4-Bromophenyl-phenylether	LCS	2.62	85.6	49-88			3.06mg/Kg	08/04/99	SPA
	LCSD	1.64	55.9		42	0-30	3.06mg/Kg	08/04/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Hexachlorobenzene	LCS	3.09	101	56-102			3.06mg/Kg	08/04/99	SPA
	LCSD	1.92	65.3		42.9	0-30	3.06mg/Kg	08/04/99	SPA
Pentachlorophenol	LCS	3.65	85.2	59-101			4.28mg/Kg	08/04/99	SPA
	LCSD	2.42	58.7		36.8	0-30	4.28mg/Kg	08/04/99	SPA
Phenanthrene	LCS	2.92	95.3	60-100			3.06mg/Kg	08/04/99	SPA
	LCSD	1.96	66.8		35.2	0-30	3.06mg/Kg	08/04/99	SPA
Anthracene	LCS	2.88	94	59-96			3.06mg/Kg	08/04/99	SPA
	LCSD	1.99	67.7		32.5	0-30	3.06mg/Kg	08/04/99	SPA
Di-n-butylphthalate	LCS	3.04	99.4	59-99			3.06mg/Kg	08/04/99	SPA
	LCSD	2.08	70.6		33.9	0-30	3.06mg/Kg	08/04/99	SPA
Fluoranthene	LCS	2.9	94.7	61-101			3.06mg/Kg	08/04/99	SPA
	LCSD	2.03	69		31.4	0-30	3.06mg/Kg	08/04/99	SPA
Pyrene	LCS	3.26	106	61-107			3.06mg/Kg	08/04/99	SPA
	LCSD	2.17	73.7		35.9	0-30	3.06mg/Kg	08/04/99	SPA
Azobenzene	LCS	3.62	118	48-99			3.06mg/Kg	08/04/99	SPA
	LCSD	2.41	81.8		36.2	0-30	3.06mg/Kg	08/04/99	SPA
Butylbenzylphthalate	LCS	3.56	116	63-110			3.06mg/Kg	08/04/99	SPA
	LCSD	2.36	80.2		36.5	0-30	3.06mg/Kg	08/04/99	SPA
3,3-Dichlorobenzidine	LCS	2.09	68.5	54-94			3.06mg/Kg	08/04/99	SPA
	LCSD	1.45	49.2		32.8	0-30	3.06mg/Kg	08/04/99	SPA

CT&E Environmental Services Inc.
Laboratory Division

Laboratory Analysis Report

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Benzo(a)Anthracene	LCS	2.98	97.3	63-103			3.06mg/Kg	08/04/99	SPA
	LCSD	2.11	71.6		30.4	0-30	3.06mg/Kg	08/04/99	SPA
Chrysene	LCS	3.03	99.2	65-103			3.06mg/Kg	08/04/99	SPA
	LCSD	2.17	73.7		29.5	0-30	3.06mg/Kg	08/04/99	SPA
bis(2-Ethylhexyl)phthalate	LCS	3.39	111	62-103			3.06mg/Kg	08/04/99	SPA
	LCSD	2.29	77.9		35	0-30	3.06mg/Kg	08/04/99	SPA
di-n-Octylphthalate	LCS	3.38	111	52-108			3.06mg/Kg	08/04/99	SPA
	LCSD	2	68.1		47.9	0-30	3.06mg/Kg	08/04/99	SPA
Benzo[b]Fluoranthene	LCS	3.04	99.5	57-105			3.06mg/Kg	08/04/99	SPA
	LCSD	2.02	68.8		36.5	0-30	3.06mg/Kg	08/04/99	SPA
Benzo[k]fluoranthene	LCS	3.45	113	54-109			3.06mg/Kg	08/04/99	SPA
	LCSD	2.21	75.1		40.3	0-30	3.06mg/Kg	08/04/99	SPA
Benzo[a]pyrene	LCS	2.96	96.9	61-99			3.06mg/Kg	08/04/99	SPA
	LCSD	2.07	70.3		31.8	0-30	3.06mg/Kg	08/04/99	SPA
Indeno[1,2,3-c,d] pyrene	LCS	2.39	78.1	35-147			3.06mg/Kg	08/04/99	SPA
	LCSD	1.72	58.3		29	0-30	3.06mg/Kg	08/04/99	SPA
Dibenzo[a,h]anthracene	LCS	2.4	78.5	43-135			3.06mg/Kg	08/04/99	SPA
	LCSD	1.7	57.9		30.2	0-30	3.06mg/Kg	08/04/99	SPA
Benzo[g,h,i]perylene	LCS	2.36	77.1	31-151			3.06mg/Kg	08/04/99	SPA
	LCSD	1.66	56.4		31	0-30	3.06mg/Kg	08/04/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6089 (63910)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993746003 993746004

QC results for Method Blank [251106]

Run Instrument: TJA Enviro II ICP P2

Parameter	Analyzed	Result	PQL	Units
Aluminum	08/05/99	5.00 U	5.00	mg/Kg
Barium	08/05/99	0.500 U	0.500	mg/Kg
Calcium	08/05/99	50.0 U	50.0	mg/Kg
Cobalt	08/05/99	0.500 U	0.500	mg/Kg
Copper	08/05/99	0.500 U	0.500	mg/Kg
Iron	08/05/99	2.50 U	2.50	mg/Kg
Potassium	08/06/99	225 U	225	mg/Kg
Magnesium	08/05/99	5.00 U	5.00	mg/Kg
Manganese	08/05/99	1.00 U	1.00	mg/Kg
Sodium	08/05/99	50.0 U	50.0	mg/Kg
Nickel	08/05/99	1.00 U	1.00	mg/Kg
Vanadium	08/05/99	0.500 U	0.500	mg/Kg
Zinc	08/05/99	1.00 U	1.00	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6089 (63910)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993746003 993746004

QC results for Lab Check Standard [251107]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aluminum	LCS	47.4	94.9	85-115			50mg/Kg	08/05/99	P2
Barium	LCS	49.1	98.2	85-115			50mg/Kg	08/05/99	P2
Calcium	LCS	472	94.4	85-115			500mg/Kg	08/05/99	P2
Cobalt	LCS	48.6	97.1	85-115			50mg/Kg	08/05/99	P2
Copper	LCS	47.7	95.3	85-115			50mg/Kg	08/05/99	P2
Iron	LCS	48.9	97.7	85-115			50.1mg/Kg	08/05/99	P2
Magnesium	LCS	449	89.7	85-115			500mg/Kg	08/05/99	P2
Manganese	LCS	47.5	95	85-115			50mg/Kg	08/05/99	P2
Nickel	LCS	47.2	94.4	85-115			50mg/Kg	08/05/99	P2
Sodium	LCS	467	93.4	85-115			500mg/Kg	08/05/99	P2
Vanadium	LCS	49	98	85-115			50mg/Kg	08/05/99	P2
Zinc	LCS	44.8	89.6	85-115			50mg/Kg	08/05/99	P2
Potassium	LCS	423	84.6	85-115			500mg/Kg	08/06/99	P2

F-701

CT&E Environmental Services Inc.

Client Harding Lawson & Assoc
Workorder 47411 Red Devil Mine

QC Batch MXX 6091 (63917)
Original
Matrix Soil/Solid

Prep Date 08/04/99 14:20
Analysis Method SW846-7041

QC results affect the following production samples:

993746003 993746004

QC results for Method Blank [251149]

Run Instrument: GFAA Perkin Elmer 4100

Parameter	Analyzed	Result	PQL	Units
Antimony	08/09/99	0.250 U	0.250	mg/Kg
Arsenic	08/10/99	0.250 U	0.250	mg/Kg
Beryllium	08/06/99	0.0250 U	0.0250	mg/Kg
Cadmium	08/05/99	0.0250 U	0.0250	mg/Kg
Chromium	08/10/99	0.250 U	0.250	mg/Kg
Lead	08/11/99	0.250 U	0.250	mg/Kg
Selenium	08/12/99	0.250 U	0.250	mg/Kg
Silver	08/05/99	0.0185 J	0.0500	mg/Kg
Thallium	08/09/99	0.250 U	0.250	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6091 (63917)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846-7041

QC results affect the following production samples:

993746003 993746004

QC results for Lab Check Standard [251150]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Antimony	LCS	15.4	103				15mg/Kg	08/09/99	F4
Arsenic	LCS	14.6	97.1	85-115			15mg/Kg	08/10/99	F1
Beryllium	LCS	1.52	101				1.5mg/Kg	08/05/99	F2
Cadmium	LCS	1.67	111	85-115			1.5mg/Kg	08/05/99	F2
Chromium	LCS	31.1	104	85-115			30mg/Kg	08/10/99	F4
Lead	LCS	15.3	102	85-115			15mg/Kg	08/11/99	F2
Selenium	LCS	13.5	90.2	85-115			15mg/Kg	08/12/99	F1
Silver	LCS	2.71	108	85-115			2.5mg/Kg	08/05/99	F2
Thallium	LCS	7.35	98				7.5mg/Kg	08/09/99	F4

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6111 (64166)		
Original		**Prep Date**	08/09/99 16:05
Matrix	Soil/Solid	**Analysis Method**	SW846 7060

QC results affect the following production samples:

993746005

QC results for Method Blank [252486]

Run Instrument: GFAA Perkin Elmer 5000

Parameter	Analyzed	Result	PQL	Units
Arsenic	08/13/99	0.250 U	0.250	mg/Kg
Cadmium	08/12/99	0.0250 U	0.0250	mg/Kg
Chromium	08/11/99	0.250 U	0.250	mg/Kg
Lead	08/11/99	0.250 U	0.250	mg/Kg
Selenium	08/16/99	0.250 U	0.250	mg/Kg
Silver	08/12/99	0.0320 J	0.0500	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6111 (64166)		
Original		**Prep Date**	08/09/99 16:05
Matrix	Soil/Solid	**Analysis Method**	SW846 7060

QC results affect the following production samples:

993746005

QC results for Lab Check Standard [252487]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Arsenic	LCS	14.8	99	85-115			15mg/Kg	08/13/99	F1
Cadmium	LCS	1.6	106	85-115			1.5mg/Kg	08/12/99	F2
Chromium	LCS	28.5	94.8	85-115			30mg/Kg	08/11/99	F4
Lead	LCS	14.6	97.3	85-115			15mg/Kg	08/11/99	F2
Selenium	LCS	14.3	95.5	85-115			15mg/Kg	08/16/99	F1
Silver	LCS	2.64	106	85-115			2.5mg/Kg	08/12/99	F2

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6142 (64592)		
Original		**Prep Date**	08/16/99 09:30
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-7471

QC results affect the following production samples:

993746001 993746002 993746003 993746004

QC results for Method Blank [254793]

Run Instrument: HgAA Leeman AutoAnalyzer PS200

Parameter	Analyzed	Result	PQL	Units
Mercury by Cold Vapor	08/16/99	0.000200 U	0.000200	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6142 (64592)		
Original		**Prep Date**	08/16/99 09:30
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-7471

QC results affect the following production samples:

993746001 993746002 993746003 993746004

QC results for Lab Check Standard [254794]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Mercury by Cold Vapor	LCS	0.00202	101				.002mg/L	08/16/99	F3

F-701

RECEIVED

AUG 30 1999

HARDING LAWSON
ASSOCIATES

CTE Environmental Services
Alaska Division
Laboratory Data Report

Project: 47411 Red Devil Mine

Client: Harding Lawson & Assoc

CTE Work Order: 993745

Contents:

Chain of Custody
Quality Control Summary Forms

Note:

Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the proper regulatory authority and/or CTE's Quality Assurance Program Plan.

Case Narrative

Customer: HARLAWP **Harding Lawson & Assoc**

Project: 993745 **47411 Red Devil Mine**

993745004 PS

SW7421 GF Metal - MS/MSD recovery for Pb was outside accepta criteria; sample concentration of Pb is 4X greater than spike amount. Post digestion spike was successful.

993745008 PS

SW6010B ICP Metals - MS/MSD recovery for Fe was outside acceptance criteria. Post digestion spike was unsuccessful. Sample result determined by MSA.

993745011 PS

8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

8270 - Internal standard chrysene-D12 and phenanthrene-d12 are biased low. The compounds quantitated under these IS are non-detect. The results are not affected.

8081- Surrogate recovery does not meet QC goals due to sample dilution.

993745012 PS

8270 - Internal standard chrysene-d12 and phenanthrene-d12 are biased low. The compounds quantitated under these IS are non-detect. The results are not affected.

8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

8081- Surrogate recovery does not meet QC goals due to sample dilution.

993745013 PS

8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

8270 - Internal standard chrysene-d12 and phenanthrene-d12 are biased low. The compounds quantitated under these IS are non-detect. The results are not affected.

993745014 PS

8260 - Field extract surrogate recovery (at 68%) is biased low (less than 71%)(due to moisture content in sample and/or silty, clay-like matrix).

8270 - Internal standard chrysene-d12 and phenanthrene-d12 are biased low. The compounds quantitated under these IS are non-detect. The results are not affected.

8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

8081-Detection limit raised 3X due to matrix interference.

993745015 PS

8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

8270 - Internal standard acenaphthene-d10, phenanthrene-d10, chrysene-d12, and phenanthrene-d12 is biased low. The samples are non-detect. The results are not affected.

993745016 PS

8270 - Internal standard phenanthrene-d10, chrysene-d12, and phenanthrene-d12 is biased low. The samples are non-detect. The results are not affected.

8270- Surrogate recovery for terphenyl-d14 is biased high possibly due to matrix.

8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

993745017 PS

8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

8270 - Internal standard chrysene-d12, and phenanthrene-d12 is biased low. The samples are non-detect. The results are not affected.

993745018 PS

8270 - Internal standard chrysene-d12, and phenanthrene-d12 is biased low. The samples are non-detect. The results are not affected.

8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

Case Narrative

Customer: HARLAWP **Harding Lawson & Assoc**

Project: 993745 **47411 Red Devil Mine**

250459 LCS

8270 - LCS/LCSD RPD for most of the compounds is biased high. The results are estimated. See QC extended report for details.

8270 - LCS recovery for n-nitrosodimethlamine,aniline, phenol, bis(2-chloroethyl)ether, bis(2-chloroisopropyl)ether, isophorone, and 2,4-dimethylphenol is biased high. The results for these compounds are estimated.

8270 - LCS recovery for 4-chloro-3-methylphenol,4-nitrophenol, diethylphthalate,4-chlorophenyl-phenylether,n-nitrosodiphenylamine, di-n-butylphthalate, azobenzene, butylbenzylphthalate is biased high. The results for these compounds are estimated.

8270 - LCS recovery for aniline, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, and benzo[k]fluoranthene is biased high. The results for these compounds are estimated.

251100 LCS

SW6010B ICP Metals - LCS for K was outside acceptance criteria; BND recovered within criteria. Sample results may be biased low.

250460 LCSD

8270 - LCS/LCSD RPD for most of the compounds is biased high. The results are estimated. See QC extended report for details.

8270 - LCSD recovery for aniline, 2-methyl-4,6-dinitrophenol, and pentachlorophenol is biased high. The results for these compounds are estimated.

252297 CCV

8270 - CCV recovery for n-nitrosodimethylamine, pyridine, aniline, bis(2-chloroethyl)ether, bis(2-ethylhexyl)phthalate,isophorone, azobenzene is biased high. The samples are non-detect for these compounds. The results are not affected.

8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

Harding Lawson
601 East 57th
Anchorage, A
~~907 / 563-810~~
907 / 561-457

993745

CHAIN OF CUSTODY FORM

Lab: CT&E 1/2

Samplers: Lori Johnson

Project Number: 47411

Name/Location: Red Devil Mine

Project Manager: Bryan Lund

Recorder: Lori Johnson (Signature Required)

	SOURCE CODE	MATRIX: Water	MATRIX: Sediment	MATRIX: Soil	MATRIX: Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	TH METALS 6010/7000
1	49			X		1						99	07	19	0215	99SLRDM R01						X	
2	49			X		1						99	07	19	0220	99SLRDM R02						X	
3	49			X		1						99	07	19	0230	99SLRDM R03						X	
4	49			X		1						99	07	19	0310	99SLRDM R04						X	
5	42		X			1						99	07	19	0330	99SDRDM S01						X	
6	42		X			1						99	07	19	0335	99SD RDM S02						X	
7	42		X			1						99	07	19	0340	99SD RDM S03						X	
8	42		X			1						99	07	19	0345	99SD RDM S04						X	
9	49			X		1						99	07	19	0500	99SLRDM T01						X	
10	49			X		1						99	07	19	0510	99SLRDM T02						X	

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						Temp blank included

CHAIN OF CUSTODY RECORD

0.6 °C

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Lori Johnson		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) John Owen	DATE/TIME 7/27/1400

METHOD OF SHIPMENT Hand Delivered

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

J93745

CHAIN OF CUSTODY FORM

2/3

Lab: CT&E

Samplers: Lorri Johnson

Project Number: 4741

Name/Location: Red Devil Mine

Project Manager: Bryan Lund

Recorder: [signature] (Signature Required)

	SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Methanol	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	8260 TCL VOCs	8270 TCL SVOCs	8081/8082 TCL Pest/PCBs	TAL Metals 6010/7000	Mercury 7471							
11	49			X		3			1				99	07	20	0235	99SLRDMD01							X	X	X	X								
12	49			X		2			1				99	07	20	0245	99SLRDMD02							X	X	X									
13	49			X		2			1				99	07	20	0330	99SLRDMA01							X	X	X									
14	49			X		2			1				99	07	20	0400	99SLRDMA02							X	X	X									
15	49			X		3			1				99	07	21	1030	99SLRDMD03							X	X	X	X								
16	49			X		3			1				99	07	21	0145	99SLRDMD04							X	X	X	X								
17	49			X		3			1				99	07	22	0410	99SLRDMC01							X	X	X	X								
18	49			X		3			1				99	07	22	0420	99SLRDMC02							X	X	X	X								
19	49			X		1							99	07	22	0435	99SLRDMR05											X							
20	49			X		1							99	07	22	0445	99SLRDMR06											X							

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						Temp blank Included

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) John Ower	DATE/TIME 7/27/1400

METHOD OF SHIPMENT: Hand delivered

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

CT&E Environmental Services Inc.

SAMPLE RECEIPT FORM

993745

CT&E WO#:

Yes	No	
	X	Are samples **RUSH**, priority, or *within 72 hrs* of **hold time**?
	X	If yes, have you done *e-mail notification*?
	X	Are samples *within 24 hrs* of **hold time** or **due date**?
	X	If yes, have you *spoken with* Supervisor?
	X	Are there any **problems** (e.g., ids, analyses)?
X		Were samples preserved correctly and pH verified?
	X	Has Project Manager been notified of problems?
		Is this an ACOE/AFCEE/ADEC project?
		Will a **data package** be required?
		If this is for PWS, provide **PWSID**.
		Is there a **quote** for this project?
	X	Will **courier** charges apply?

Completed by (sign): Sarita Phillips (print): Sarita Phillips

Due Date: 8/5
Received Date/Time: 7/27 1400
Cooler Temperature: 0.6
Sample Condition: Good / Poor

Matrix of each Sample:

2	" "	1-20
	" "	
	" "	
	" "	
	Trip Blank	
	MS/MSD	

Additional Sample Remarks:

X	AK101s/_____ 8260s field pres'd?
	Field-filtered for dissolved_____?
	Lab-filter for dissolved_____?
	Ref Lab required?

Notes:

*** The following *must* be completed for *all* ACOE & AFCEE projects: ***

Yes	No		Notes:
		Is cooler temperature 4 ± C?	
		thermometer used:	
		Was there an airbill, etc? note #:	
		Was cooler sealed with custody seals?	
		#/where?	
		Were seals intact upon arrival?	
		Was there a COC with cooler?	
		Was the COC filled out properly?	
		Did the COC indicate ACOE/AFCEE project?	
		Did the COC and samples correspond?	
		Were samples screened with Geiger counter?	
		Were all samples packed to prevent breakage?	
		packing material:	
		Were all samples unbroken and clearly labelled?	
		Were all samples sealed in separate plastic bags?	
		Were all bottles for volatiles free of headspace?	
		Were correct container/sample sizes submitted?	
		Was client notified of problems? (specify below)	

Individual contacted:
Date & Time: _____ Phone/Fax #: _____

# of each Container Received:

	950 ml amber	unpres'd
	950 ml amber	w/ HCl
	500 ml amber	w/ H2SO4
	1L cubies	unpres'd
	1L cubies	w/ HNO3
	1L cubies	w/ H2SO4
	1L cubies	w/ NaOH + ZnAc
	120 ml coli	bottles
	60 ml	Nalg
33	8 oz amber	unpres'd
	4 oz amber	unpres'd
8	4 oz w/ septa	w/ MeOH
	40 ml vials	w/ HCl
	Other (specify)	
	Other (specify)	

#/Log In Proofed by: _____

Form Number: F004r2
Printed: 7/12/99

CT&E Environmental Services Inc.
Laboratory Division

Laboratory Analysis Report

August 19, 1999

Lorri Johnson
Harding Lawson & Assoc
601 East 57th Place
Anchorage, AK 99518

Client Name	Harding Lawson & Assoc
Project ID	47411 Red Devil Mine [993745]
Printed	August 19, 1999

Enclosed are the analytical results associated with the above project.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by CT&E. A copy of our Quality Control Manual that outlines this program is available at your request.

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth in our Quality Assurance Program Plan.

If you have any questions regarding this report or if we can be of any other assistance, please call your CT&E Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value that falls below PQL, but is greater than the MDL.
B - Indicates the analyte is found in the blank associated with the sample.
* - The analyte has exceeded allowable limits.
GT - Greater Than
D - Secondary Dilution
LT - Less Than
! - Surrogate out of range

200 W. Potter Drive, **Anchorage, AK 99518-1605** — Tel: (907) 562-2343 Fax: (907) 561-5301
3180 Peger Road, **Fairbanks, AK 99709-5471** — Tel: (907) 474-8656 Fax: (907) 474-9685

ENVIRONMENTAL FACILITIES IN ALASKA, CALIFORNIA, FLORIDA, ILLINOIS, MARYLAND, MICHIGAN, MISSOURI, NEW JERSEY, OHIO, WEST VIRGINIA

INVOICE (Duplicate)

CT&E Environmental Services Inc.
Laboratory Division
FEDERAL I.D.: 22-3334380
200 W. Potter Drive
Anchorage, AK 99518-1605
Tel: (907) 562-2343
Fax: (907) 561-5301

INVOICE NO. 52247323 Workorder Date: 07/28/99
DATE 08/24/99 CT&E Ref.# 993745
Client PO: Account # HARLAWP
Project Name: 47411 Red Devil Mine

PLEASE REMIT TO: P.O. Box 10001-1019, Pasadena, CA 91110-1019

DIRECT PAYMENT INQUIRIES TO: 1919 S. Highland Ave., Suite 210-B, Lombard, IL 60148-4991 Tel. (630) 953-9300 Fax (630) 953-9306
TERMS: Net 30 Days. A Service Charge of One and a Half Percent (1½%) Per Month Will Be Charged on Overdue Accounts.

Bill To Harding Lawson & Assoc
601 E 57th Place
Anchorage, AK 99518

Contact Accounts Payable
Phone (907)563-8102
Ordered By

Special Instructions

Client Sample ID/CT&E Sample ID	Parameter	Charge
99SLRDMR01[993745001]	Target Analyte List	319.73
99SLRDMR02[993745002]	Target Analyte List	319.73
99SLRDMR03[993745003]	Target Analyte List	319.73
99SLRDMR04[993745004]	Target Analyte List	319.73
99SDRDMS01[993745005]	Target Analyte List	319.73
99SDRDMS02[993745006]	Target Analyte List	319.73
99SDRDMS03[993745007]	Target Analyte List	319.73
99SDRDMS04[993745008]	Target Analyte List	319.73
99SLRDMT01[993745009]	Target Analyte List	319.73
99SLRDMT02[993745010]	Target Analyte List	319.73
99SLRDMD01[993745011]	Target Analyte List	319.73
99SLRDMD01[993745011]	Semi-Volatiles by GC/MS (S)	385.88
99SLRDMD01[993745011]	VOC, 8260 (S) FIELD EXTRACTED	220.50
99SLRDMD01[993745011]	Pesticides/PCB's by GC ECD (S)	165.38
99SLRDMD02[993745012]	Pesticides/PCB's by GC ECD (S)	165.38
99SLRDMD02[993745012]	Semi-Volatiles by GC/MS (S)	385.88
99SLRDMD02[993745012]	VOC, 8260 (S) FIELD EXTRACTED	220.50
99SLRDMA01[993745013]	Pesticides/PCB's by GC ECD (S)	165.38
99SLRDMA01[993745013]	VOC, 8260 (S) FIELD EXTRACTED	220.50

600

CONTROL NO.
R- 42748

INVOICE (Duplicate)

CT&E Environmental Services Inc.
Laboratory Division

FEDERAL I.D.: 22-3334380

200 W. Potter Drive
Anchorage, AK 99518-1605
Tel: (907) 562-2343
Fax: (907) 561-5301

INVOICE NO. 52247323 Workorder Date: 07/28/99
DATE 08/24/99 CT&E Ref.# 993745
Client PO: Account # HARLAWP
Project Name: 47411 Red Devil Mine

PLEASE REMIT TO: P.O. Box 10001-1019, Pasadena, CA 91110-1019

DIRECT PAYMENT INQUIRIES TO: 1919 S. Highland Ave., Suite 210-B, Lombard, IL 60148-4991 Tel. (630) 953-9300 Fax (630) 953-9306
TERMS: Net 30 Days. A Service Charge of One and a Half Percent (1½%) Per Month Will Be Charged on Overdue Accounts.

Client Sample ID/CT&E Sample ID	Parameter	Charge
99SLRDMA01[993745013]	Semi-Volatiles by GC/MS (S)	385.88
99SLRDMA02[993745014]	Pesticides/PCB's by GC ECD (S)	165.38
99SLRDMA02[993745014]	Semi-Volatiles by GC/MS (S)	385.88
99SLRDMA02[993745014]	VOC, 8260 (S) FIELD EXTRACTED	220.50
99SLRDMD03[993745015]	Pesticides/PCB's by GC ECD (S)	165.38
99SLRDMD03[993745015]	Semi-Volatiles by GC/MS (S)	385.88
99SLRDMD03[993745015]	Target Analyte List	319.73
99SLRDMD03[993745015]	VOC, 8260 (S) FIELD EXTRACTED	220.50
99SLRDMD04[993745016]	Pesticides/PCB's by GC ECD (S)	165.38
99SLRDMD04[993745016]	Target Analyte List	319.73
99SLRDMD04[993745016]	VOC, 8260 (S) FIELD EXTRACTED	220.50
99SLRDMD04[993745016]	Semi-Volatiles by GC/MS (S)	385.88
99SLRDMC01[993745017]	Pesticides/PCB's by GC ECD (S)	165.38
99SLRDMC01[993745017]	Semi-Volatiles by GC/MS (S)	385.88
99SLRDMC01[993745017]	Target Analyte List	319.73
99SLRDMC01[993745017]	VOC, 8260 (S) FIELD EXTRACTED	220.50
99SLRDMC02[993745018]	Pesticides/PCB's by GC ECD (S)	165.38
99SLRDMC02[993745018]	Target Analyte List	319.73
99SLRDMC02[993745018]	VOC, 8260 (S) FIELD EXTRACTED	220.50
99SLRDMC02[993745018]	Semi-Volatiles by GC/MS (S)	385.88
99SLRDMR05[993745019]	Mercury SW7471 (S)	25.00
99SLRDMR06[993745020]	Mercury SW7471 (S)	25.00
[-1]	Level 1 Data Deliverables	1,102.00
	TOTAL DUE	$12,122.03

500

CONTROL NO.
R- 42749

CT&E Environmental Services Inc.

CT&E Ref.#	993745001	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/20/99 10:49
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 02:15
Client Sample ID	99SLRDMR01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	82.9		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	4400	481	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	1520	484	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	3130	242	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	287	4.81	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.824	0.0967	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.540	0.0484	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	5630	481	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	10.9	2.42	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	17.0	4.81	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	57.2	4.81	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	24400	241	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	12.6	2.42	mg/Kg	SW846-7421		08/04/99	08/06/99	KGF
Magnesium	1360	48.1	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	746	9.63	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	1090	24.0	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	44.5	9.63	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	1080	217	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Selenium	0.242 U	0.242	mg/Kg	SW846-7740		08/04/99	08/11/99	JMO
Silver	0.131	0.0484	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	67.7	48.1	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.242 U	0.242	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	23.0	4.81	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	115	9.63	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745002	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 02:20
Client Sample ID	99SLRDMR02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	89.6		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	3640	393	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	529	394	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	1380	197	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	211	3.93	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.871	0.0788	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.584	0.0394	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	2620	393	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	12.9	1.97	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	18.7	3.93	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	70.2	3.93	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	28700	196	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	48.5	3.94	mg/Kg	SW846-7421		08/04/99	08/06/99	KGF
Magnesium	1520	39.3	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	733	7.86	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	445	19.5	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	59.6	7.86	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	743	177	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Selenium	0.197 U	0.197	mg/Kg	SW846-7740		08/04/99	08/11/99	JMO
Silver	0.121	0.0394	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	39.3 U	39.3	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.197 U	0.197	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	24.9	3.93	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	115	7.86	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745003	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 02:30
Client Sample ID	99SLRDMR03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	91.2		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	2920	438	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	629	420	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	2270	210	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	193	4.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	1.49	0.0841	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.550	0.0420	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	3190	438	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	11.1	2.10	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	14.9	4.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	69.0	4.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	31200	219	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	55.3	4.20	mg/Kg	SW846-7421		08/04/99	08/06/99	KGF
Magnesium	4890	43.8	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	748	8.77	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	975	150	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	36.8	8.77	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	957	197	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Selenium	0.353	0.210	mg/Kg	SW846-7740		08/04/99	08/11/99	JMO
Silver	0.209	0.0420	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	56.3	43.8	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.210 U	0.210	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	19.0	4.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	116	8.77	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 03:10
Client Sample ID	99SLRDMR04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
SW7421 GF Metal - MS/MSD recovery for Pb was outside accepta criteria; sample concentration of Pb is 4X greater than spike amount. Post digestion spike was successful.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	88.9		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	3340	462	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	744	209	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	2490	209	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	182	4.62	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.0745	0.0209	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.368	0.209	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	3290	462	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	23.5	2.09	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	21.3	4.62	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	77.2	4.62	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	38800	231	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	900	209	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	4320	46.2	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	719	9.24	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	11200	212	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	64.1	9.24	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	818	208	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Selenium	2.09 U	2.09	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.0419 U	0.0419	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	55.5	46.2	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.280	0.209	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745004	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 03:10
Client Sample ID	99SLRDMR04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director:**	**Stephen C. Ede**
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Vanadium	23.3	4.62	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	116	9.24	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745005	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 03:30
Client Sample ID	99SDRDMS01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Wendlebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	75.9		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	1450	498	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	480	228	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	3390	457	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	65.0	4.98	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.808	0.0914	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.300	0.0228	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	1060	498	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	12.9	2.28	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	14.8	4.98	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	55.0	4.98	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	37200	249	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	127	22.8	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	865	49.8	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	580	9.96	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	479	12.3	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	43.0	9.96	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	746	224	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Selenium	0.228 U	0.228	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.252	0.0457	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	49.8 U	49.8	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.228 U	0.228	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	15.7	4.98	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	94.1	9.96	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745006	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 03:35
Client Sample ID	99SDRDMS02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director:**	Stephen C. Ede
Ordered By			
PWSID		**Released By**	J Wendlebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	75.4		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	1460	465	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	162	26.3	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	3680	526	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	81.1	4.65	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.679	0.105	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.306	0.0263	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	1220	465	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	13.8	2.63	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	12.7	4.65	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	54.5	4.65	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	35400	232	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	255	26.3	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	894	46.5	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	446	9.30	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	191	14.4	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	35.1	9.30	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	730	209	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Selenium	0.410	0.263	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.295	0.0526	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	46.5 U	46.5	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.294	0.263	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	14.6	4.65	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	88.8	9.30	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745007	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 03:40
Client Sample ID	99SDRDMS03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	90.5		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	1450	422	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	512	185	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	3040	370	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	90.7	4.22	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.985	0.0740	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.281	0.0185	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	5850	422	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	27.1	1.85	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	16.6	4.22	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	62.0	4.22	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	46800	211	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	88.9	18.5	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	7580	42.2	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	937	8.44	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	476	13.1	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	44.9	8.44	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	662	190	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Selenium	0.307	0.185	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.197	0.0370	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	42.2 U	42.2	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.578	0.185	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	21.9	4.22	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	92.6	8.44	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745008	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 03:45
Client Sample ID	99SDRDMS04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
SW6010B ICP Metals - MS/MSD recovery for Fe was outside acceptance criteria. Post digestion spike was unsuccessful. Sample result determined by MSA.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	90.3		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	8250	838	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	892	228	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	2450	456	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	556	4.19	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	1.12	0.228	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.353	0.0228	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	4410	4190	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	24.3	2.28	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	17.8	4.19	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	60.9	4.19	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	31700	209	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	91.3	9.11	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	5220	838	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	676	8.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	982	157	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	48.1	8.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	2680	188	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.228 U	0.228	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.128	0.0456	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	219	41.9	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.401	0.228	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745008	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 03:45
Client Sample ID	99SDRDMS04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Vanadium	24.0	4.19	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	101	8.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745009	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 05:00
Client Sample ID	99SLRDMT01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director:**	Stephen C. Ede
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	91.9		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Aluminum	8850	805	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Antimony	1780	201	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	2280	402	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	614	4.03	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	1.14	0.201	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.463	0.201	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	6790	4030	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	23.1	2.01	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	17.8	4.03	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	121	4.03	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Iron	34600	403	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	13.8	2.01	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	7140	805	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	551	8.05	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	269	14.2	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	55.1	8.05	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	2370	181	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.241	0.201	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.164	0.0402	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	40.3 U	40.3	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.358	0.201	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	22.8	4.03	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	113	8.05	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745010	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/19/99 05:10
Client Sample ID	99SLRDMT02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Total Solids	89.7		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Antimony	52.8	18.8	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	377 U	377	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	186	3.87	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.953	0.188	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.545	0.0753	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	2220	387	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	12.2	1.88	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	20.6	3.87	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	54.9	3.87	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	16.3	1.88	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	804	38.7	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	1680	7.74	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	100	20.8	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	72.6	7.74	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	671	174	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.256	0.188	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.136	0.0377	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Thallium	0.188 U	0.188	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	22.1	3.87	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	115	7.74	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:35
Client Sample ID	99SLRDMD01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.
8270 - Internal standard chrysene-D12 and phenanthrene-d12 are biased low. The compounds quantitated under these IS are non-detect. The results are not affected.
8081- Surrogate recovery does not meet QC goals due to sample dilution.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	92.7		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Antimony	13.4	2.10	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	66.0	21.0	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	225	4.20	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.769	0.210	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.533	0.0840	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	1610	420	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	15.0	2.10	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	19.1	4.20	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	70.1	4.20	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	31.3	2.10	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	742	42.0	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	1450	8.40	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	44.0	20.5	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	66.1	8.40	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	848	189	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.210 U	0.210	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.255	0.0420	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Thallium	0.210 U	0.210	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	29.2	4.20	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:35
Client Sample ID	99SLRDMD01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Zinc	142	8.40	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloromethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Vinyl chloride	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromomethane	0.37 U	0.37	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloroethane	0.37 U	0.37	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Trichlorofluoromethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloroethene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Carbon disulfide	0.37 U	0.37	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Methylene chloride	0.18 U	0.18	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
trans-1,2-Dichloroethene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloroethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Butanone (MEK)	0.37 U	0.37	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2,2-Dichloropropane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
cis-1,2-Dichloroethene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromochloromethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloroform	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,1-Trichloroethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Carbon tetrachloride	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloropropene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Benzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichloroethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Trichloroethene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichloropropane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Dibromomethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromodichloromethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-chloroethylvinyl ether	0.37 U	0.37	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
cis-1,3-Dichloropropene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Methyl-2-pentanone (MIBK)	0.37 U	0.37	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS

CT&E Environmental Services Inc.

CT&E Ref.#	993745011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:35
Client Sample ID	99SLRDMD01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Toluene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
trans-1,3-Dichloropropene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,2-Trichloroethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Tetrachloroethene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3-Dichloropropane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Hexanone	0.37 U	0.37	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Dibromochloromethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dibromoethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chlorobenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,1,2-Tetrachloroethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Ethylbenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
P & M -Xylene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
o-Xylene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Styrene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromoform	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Isopropylbenzene (Cumene)	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromobenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,2,2-Tetrachloroethane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,3-Trichloropropane	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
n-Propylbenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Chlorotoluene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Chlorotoluene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3,5-Trimethylbenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
tert-Butylbenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,4-Trimethylbenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
sec-Butylbenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3-Dichlorobenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Isopropyltoluene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,4-Dichlorobenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichlorobenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
n-Butylbenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dibromo-3-chloropropane	0.37 U	0.37	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS

CT&E Environmental Services Inc.

CT&E Ref.#	993745011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:35
Client Sample ID	99SLRDMD01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
1,2,4-Trichlorobenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Hexachlorobutadiene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Naphthalene	0.0696	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,3-Trichlorobenzene	0.037 U	0.037	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	91.1		%	SW846-8260	(74-123)	07/20/99	07/30/99	
Dibromofluoromethane <surr>	97.6		%	SW846-8260	(80-118)	07/20/99	07/30/99	
Toluene-d8 <surr>	102		%	SW846-8260	(79-130)	07/20/99	07/30/99	
4-Bromofluorobenzene <Surr>	74.5		%	SW846-8260	(71-141)	07/20/99	07/30/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyridine	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Aniline	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenol	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethyl)ether	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chlorophenol	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,3-Dichlorobenzene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,4-Dichlorobenzene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzyl alcohol	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2-Dichlorobenzene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylphenol (o-Cresol)	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-chloroisopropyl)ether	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3&4-Methylphenol (p&m-Cresol)	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitroso-di-n-propylamine	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachloroethane	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Nitrobenzene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Isophorone	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitrophenol	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

CT&E Environmental Services Inc.

CT&E Ref.#	993745011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:10
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:35
Client Sample ID	99SLRDMD01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director:**	**Stephen C. Ede**
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2,4-Dimethylphenol	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzoic acid	150 U	150	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethoxy)methane	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2,4-Trichlorobenzene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Naphthalene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloroaniline	61 U	61	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobutadiene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloro-3-methylphenol	61 U	61	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dichlorophenol	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylnaphthalene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorocyclopentadiene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,6-Trichlorophenol	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,5-Trichlorophenol	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chloronaphthalene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitroaniline	150 U	150	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dimethylphthalate	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthylene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,6-Dinitrotoluene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3-Nitroaniline	150 U	150	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrophenol	150 U	150	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitrophenol	150 U	150	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzofuran	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrotoluene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Diethylphthalate	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chlorophenyl-phenylether	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluorene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitroaniline	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methyl-4,6-dinitrophenol	150 U	150	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitrosodiphenylamine	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Bromophenyl-phenylether	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobenzene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

CT&E Environmental Services Inc.

CT&E Ref.#	993745011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:35
Client Sample ID	99SLRDMD01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Pentachlorophenol	150 U	150	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenanthrene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Anthracene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Di-n-butylphthalate	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluoranthene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyrene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Azobenzene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Butylbenzylphthalate	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3,3-Dichlorobenzidine	61 U	61	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo(a)Anthracene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Chrysene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-Ethylhexyl)phthalate	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
di-n-Octylphthalate	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[b]Fluoranthene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[k]fluoranthene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[a]pyrene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Indeno[1,2,3-c,d] pyrene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzo[a,h]anthracene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[g,h,i]perylene	30 U	30	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	49.2		%	SW846-8270	(18-122)	08/02/99	08/04/99	
Phenol-d6 <Surr>	77.7		%	SW846-8270	(24-88)	08/02/99	08/04/99	
Terphenyl-d14 <Surr>	131		%	SW846-8270	(21-142)	08/02/99	08/04/99	
2-Fluorobiphenyl <Surr>	83.4		%	SW846-8270	(30-103)	08/02/99	08/04/99	
2-Fluorophenol <Surr>	61.7		%	SW846-8270	(18-83)	08/02/99	08/04/99	
Nitrobenzene-d5 <Surr>	93.4		%	SW846-8270	(18-109)	08/02/99	08/04/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:35
Client Sample ID	99SLRDMD01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.00645 U	0.00645	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1221	0.00645 U	0.00645	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1232	0.00645 U	0.00645	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1242	0.00645 U	0.00645	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1248	0.00645 U	0.00645	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1254	0.00645 U	0.00645	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1260	0.00645 U	0.00645	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	55.5		%	SW846 8082	(53.3-125)	08/02/99	08/04/99	
Pesticides								
alpha-BHC	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
beta-BHC	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-Chlordane	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
alpha-Chlordane	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-BHC (Lindane)	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
delta-BHC	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Aldrin	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor epoxide	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan I	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDE	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Dieldrin	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan II	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDD	0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745011	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:35
Client Sample ID	99SLRDMD01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter		Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Endrin aldehyde		0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDT		0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan sulfate		0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin ketone		0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Methoxychlor		0.00645 U	0.00645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Toxaphene		0.645 U	0.645	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Surrogates									
Decachlorobiphenyl <Surr>	!	35		%	SW846-8081A	(46-154)	08/02/99	08/09/99	
Tetrachloro-m-xylene <Surr>	!	11		%	SW846-8081A	(25-120)	08/02/99	08/09/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:45
Client Sample ID	99SLRDMD02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Wunderbank

Sample Remarks:
8270 - Internal standard chrysene-d12 and phenanthrene-d12 are biased low. The compounds quantitated under these IS are non-detect. The results are not affected.
8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.
8081- Surrogate recovery does not meet QC goals due to sample dilution.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	92.3		%	SM18 2540G			07/30/99	MPA
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Vinyl chloride	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromomethane	0.49 U	0.49	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloroethane	0.49 U	0.49	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Trichlorofluoromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Carbon disulfide	0.49 U	0.49	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Methylene chloride	0.25 U	0.25	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
trans-1,2-Dichloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Butanone (MEK)	0.49 U	0.49	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2,2-Dichloropropane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
cis-1,2-Dichloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromochloromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloroform	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,1-Trichloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Carbon tetrachloride	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloropropene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS

CT&E Environmental Services Inc.

CT&E Ref.#	993745012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:45
Client Sample ID	99SLRDMD02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Benzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Trichloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichloropropane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Dibromomethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromodichloromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-chloroethylvinyl ether	0.49 U	0.49	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
cis-1,3-Dichloropropene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Methyl-2-pentanone (MIBK)	0.49 U	0.49	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Toluene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
trans-1,3-Dichloropropene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,2-Trichloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Tetrachloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3-Dichloropropane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Hexanone	0.49 U	0.49	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Dibromochloromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dibromoethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,1,2-Tetrachloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Ethylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
P & M -Xylene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
o-Xylene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Styrene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromoform	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Isopropylbenzene (Cumene)	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,2,2-Tetrachloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,3-Trichloropropane	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
n-Propylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Chlorotoluene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Chlorotoluene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3,5-Trimethylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:45
Client Sample ID	99SLRDMD02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
tert-Butylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,4-Trimethylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
sec-Butylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3-Dichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Isopropyltoluene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,4-Dichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
n-Butylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dibromo-3-chloropropane	0.49 U	0.49	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,4-Trichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Hexachlorobutadiene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Naphthalene	0.157	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,3-Trichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	88.1		%	SW846-8260	(74-123)	07/20/99	07/30/99	
Dibromofluoromethane <surr>	94.8		%	SW846-8260	(80-118)	07/20/99	07/30/99	
Toluene-d8 <surr>	99.1		%	SW846-8260	(79-130)	07/20/99	07/30/99	
4-Bromofluorobenzene <Surr>	78		%	SW846-8260	(71-141)	07/20/99	07/30/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyridine	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Aniline	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenol	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethyl)ether	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chlorophenol	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,3-Dichlorobenzene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,4-Dichlorobenzene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzyl alcohol	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:45
Client Sample ID	99SLRDMD02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
1,2-Dichlorobenzene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylphenol (o-Cresol)	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-chloroisopropyl)ether	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3&4-Methylphenol (p&m-Cresol)	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitroso-di-n-propylamine	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachloroethane	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Nitrobenzene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Isophorone	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitrophenol	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dimethylphenol	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzoic acid	190 U	190	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethoxy)methane	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2,4-Trichlorobenzene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Naphthalene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloroaniline	74 U	74	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobutadiene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloro-3-methylphenol	74 U	74	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dichlorophenol	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylnaphthalene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorocyclopentadiene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,6-Trichlorophenol	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,5-Trichlorophenol	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chloronaphthalene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitroaniline	190 U	190	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dimethylphthalate	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthylene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,6-Dinitrotoluene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3-Nitroaniline	190 U	190	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrophenol	190 U	190	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitrophenol	190 U	190	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzofuran	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:45
Client Sample ID	99SLRDMD02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2,4-Dinitrotoluene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Diethylphthalate	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chlorophenyl-phenylether	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluorene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitroaniline	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methyl-4,6-dinitrophenol	190 U	190	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitrosodiphenylamine	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Bromophenyl-phenylether	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobenzene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pentachlorophenol	190 U	190	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenanthrene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Anthracene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Di-n-butylphthalate	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluoranthene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyrene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Azobenzene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Butylbenzylphthalate	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3,3-Dichlorobenzidine	74 U	74	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo(a)Anthracene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Chrysene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-Ethylhexyl)phthalate	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
di-n-Octylphthalate	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[b]Fluoranthene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[k]fluoranthene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[a]pyrene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Indeno[1,2,3-c,d] pyrene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzo[a,h]anthracene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[g,h,i]perylene	37 U	37	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	43.5		%	SW846-8270	(18-122)	08/02/99	08/04/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:45
Client Sample ID	99SLRDMD02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Surrogates								
Phenol-d6 <Surr>	65.9		%	SW846-8270	(24-88)	08/02/99	08/04/99	
Terphenyl-d14 <Surr>	120		%	SW846-8270	(21-142)	08/02/99	08/04/99	
2-Fluorobiphenyl <Surr>	72.4		%	SW846-8270	(30-103)	08/02/99	08/04/99	
2-Fluorophenol <Surr>	50.9		%	SW846-8270	(18-83)	08/02/99	08/04/99	
Nitrobenzene-d5 <Surr>	73.4		%	SW846-8270	(18-109)	08/02/99	08/04/99	
PCB's by GC ECD								
Aroclor-1016	0.00602 U	0.00602	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1221	0.00602 U	0.00602	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1232	0.00602 U	0.00602	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1242	0.00602 U	0.00602	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1248	0.00602 U	0.00602	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1254	0.00602 U	0.00602	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1260	0.00602 U	0.00602	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	87.5		%	SW846 8082	(53.3-125)	08/02/99	08/04/99	
Pesticides								
alpha-BHC	0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
beta-BHC	0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-Chlordane	0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
alpha-Chlordane	0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-BHC (Lindane)	0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
delta-BHC	0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor	0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745012	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 02:45
Client Sample ID	99SLRDMD02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter		Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Aldrin		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor epoxide		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan I		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDE		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Dieldrin		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan II		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDD		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin aldehyde		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDT		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan sulfate		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin ketone		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Methoxychlor		0.00602 U	0.00602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Toxaphene		0.602 U	0.602	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Surrogates									
Decachlorobiphenyl <Surr>	!	28		%	SW846-8081A	(46-154)	08/02/99	08/09/99	
Tetrachloro-m-xylene <Surr>	!	10		%	SW846-8081A	(25-120)	08/02/99	08/09/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 03:30
Client Sample ID	99SLRDMA01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windlebank

Sample Remarks:
8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.
8270 - Internal standard chrysene-d12 and phenanthrene-d12 are biased low. The compounds quantitated under these IS are non-detect. The results are not affected.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	67.5		%	SM18 2540G			07/30/99	MPA
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloromethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Vinyl chloride	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromomethane	0.41 U	0.41	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloroethane	0.41 U	0.41	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Trichlorofluoromethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloroethene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Carbon disulfide	0.41 U	0.41	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Methylene chloride	0.20 U	0.20	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
trans-1,2-Dichloroethene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloroethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Butanone (MEK)	0.41 U	0.41	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2,2-Dichloropropane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
cis-1,2-Dichloroethene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromochloromethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloroform	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,1-Trichloroethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Carbon tetrachloride	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloropropene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Benzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 03:30
Client Sample ID	99SLRDMA01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
1,2-Dichloroethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Trichloroethene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichloropropane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Dibromomethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromodichloromethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-chloroethylvinyl ether	0.41 U	0.41	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
cis-1,3-Dichloropropene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Methyl-2-pentanone (MIBK)	0.41 U	0.41	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Toluene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
trans-1,3-Dichloropropene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,2-Trichloroethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Tetrachloroethene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3-Dichloropropane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Hexanone	0.41 U	0.41	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Dibromochloromethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dibromoethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chlorobenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,1,2-Tetrachloroethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Ethylbenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
P & M -Xylene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
o-Xylene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Styrene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromoform	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Isopropylbenzene (Cumene)	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromobenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,2,2-Tetrachloroethane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,3-Trichloropropane	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
n-Propylbenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Chlorotoluene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Chlorotoluene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3,5-Trimethylbenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
tert-Butylbenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 03:30
Client Sample ID	99SLRDMA01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
1,2,4-Trimethylbenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
sec-Butylbenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3-Dichlorobenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Isopropyltoluene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,4-Dichlorobenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichlorobenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
n-Butylbenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dibromo-3-chloropropane	0.41 U	0.41	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,4-Trichlorobenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Hexachlorobutadiene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Naphthalene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,3-Trichlorobenzene	0.041 U	0.041	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	88.1		%	SW846-8260	(74-123)	07/20/99	07/30/99	
Dibromofluoromethane <surr>	96.8		%	SW846-8260	(80-118)	07/20/99	07/30/99	
Toluene-d8 <surr>	103		%	SW846-8260	(79-130)	07/20/99	07/30/99	
4-Bromofluorobenzene <Surr>	71.3		%	SW846-8260	(71-141)	07/20/99	07/30/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyridine	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Aniline	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenol	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethyl)ether	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chlorophenol	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,3-Dichlorobenzene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,4-Dichlorobenzene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzyl alcohol	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2-Dichlorobenzene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 03:30
Client Sample ID	99SLRDMA01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2-Methylphenol (o-Cresol)	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-chloroisopropyl)ether	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3&4-Methylphenol (p&m-Cresol)	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitroso-di-n-propylamine	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachloroethane	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Nitrobenzene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Isophorone	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitrophenol	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dimethylphenol	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzoic acid	6.0 U	6.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethoxy)methane	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2,4-Trichlorobenzene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Naphthalene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloroaniline	2.4 U	2.4	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobutadiene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloro-3-methylphenol	2.4 U	2.4	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dichlorophenol	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylnaphthalene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorocyclopentadiene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,6-Trichlorophenol	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,5-Trichlorophenol	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chloronaphthalene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitroaniline	6.0 U	6.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dimethylphthalate	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthylene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,6-Dinitrotoluene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3-Nitroaniline	6.0 U	6.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrophenol	6.0 U	6.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitrophenol	6.0 U	6.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzofuran	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrotoluene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 03:30
Client Sample ID	99SLRDMA01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Diethylphthalate	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chlorophenyl-phenylether	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluorene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitroaniline	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methyl-4,6-dinitrophenol	6.0 U	6.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitrosodiphenylamine	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Bromophenyl-phenylether	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobenzene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pentachlorophenol	6.0 U	6.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenanthrene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Anthracene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Di-n-butylphthalate	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluoranthene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyrene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Azobenzene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Butylbenzylphthalate	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3,3-Dichlorobenzidine	2.4 U	2.4	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo(a)Anthracene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Chrysene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-Ethylhexyl)phthalate	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
di-n-Octylphthalate	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[b]Fluoranthene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[k]fluoranthene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[a]pyrene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Indeno[1,2,3-c,d] pyrene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzo[a,h]anthracene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[g,h,i]perylene	1.2 U	1.2	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	87.1		%	SW846-8270	(18-122)	08/02/99	08/04/99	
Phenol-d6 <Surr>	75.2		%	SW846-8270	(24-88)	08/02/99	08/04/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 03:30
Client Sample ID	99SLRDMA01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Surrogates								
Terphenyl-d14 <Surr>	130		%	SW846-8270	(21-142)	08/02/99	08/04/99	
2-Fluorobiphenyl <Surr>	77.3		%	SW846-8270	(30-103)	08/02/99	08/04/99	
2-Fluorophenol <Surr>	63.7		%	SW846-8270	(18-83)	08/02/99	08/04/99	
Nitrobenzene-d5 <Surr>	73.4		%	SW846-8270	(18-109)	08/02/99	08/04/99	
PCB's by GC ECD								
Aroclor-1016	0.0145 U	0.0145	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1221	0.0145 U	0.0145	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1232	0.0145 U	0.0145	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1242	0.0145 U	0.0145	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1248	0.0145 U	0.0145	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1254	0.0145 U	0.0145	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Aroclor-1260	0.0145 U	0.0145	mg/Kg	SW846 8082		08/02/99	08/04/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	119		%	SW846 8082	(53.3-125)	08/02/99	08/04/99	
Pesticides								
alpha-BHC	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
beta-BHC	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-Chlordane	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
alpha-Chlordane	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-BHC (Lindane)	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
delta-BHC	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Aldrin	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745013	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 03:30
Client Sample ID	99SLRDMA01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Heptachlor epoxide	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan I	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDE	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Dieldrin	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan II	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDD	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin aldehyde	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDT	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan sulfate	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin ketone	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Methoxychlor	0.0145 U	0.0145	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Toxaphene	1.45 U	1.45	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	96		%	SW846-8081A	(46-154)	08/02/99	08/09/99	
Tetrachloro-m-xylene <Surr>	95		%	SW846-8081A	(25-120)	08/02/99	08/09/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745014	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 04:00
Client Sample ID	99SLRDMA02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
8260 - Field extract surrogate recovery (at 68%) is biased low (less than 71%)(due to moisture content in sample and/or silty, clay-like matrix).
8270 - Internal standard chrysene-d12 and phenanthrene-d12 are biased low. The compounds quantitated under these IS are non-detect. The results are not affected.
8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.
8081-Detection limit raised 3X due to matrix interference.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	92.2		%	SM18 2540G			07/30/99	MPA
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloromethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Vinyl chloride	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromomethane	0.29 U	0.29	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloroethane	0.29 U	0.29	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Trichlorofluoromethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloroethene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Carbon disulfide	0.29 U	0.29	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Methylene chloride	0.14 U	0.14	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
trans-1,2-Dichloroethene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloroethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Butanone (MEK)	0.29 U	0.29	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2,2-Dichloropropane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
cis-1,2-Dichloroethene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromochloromethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chloroform	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,1-Trichloroethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745014	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 04:00
Client Sample ID	99SLRDMA02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Carbon tetrachloride	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1-Dichloropropene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Benzene	0.0988	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichloroethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Trichloroethene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichloropropane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Dibromomethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromodichloromethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-chloroethylvinyl ether	0.29 U	0.29	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
cis-1,3-Dichloropropene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Methyl-2-pentanone (MIBK)	0.29 U	0.29	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Toluene	0.216	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
trans-1,3-Dichloropropene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,2-Trichloroethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Tetrachloroethene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3-Dichloropropane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Hexanone	0.29 U	0.29	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Dibromochloromethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dibromoethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Chlorobenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,1,2-Tetrachloroethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Ethylbenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
P & M -Xylene	0.0598	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
o-Xylene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Styrene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromoform	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Isopropylbenzene (Cumene)	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Bromobenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,1,2,2-Tetrachloroethane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,3-Trichloropropane	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
n-Propylbenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
2-Chlorotoluene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745014	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 04:00
Client Sample ID	99SLRDMA02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
4-Chlorotoluene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3,5-Trimethylbenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
tert-Butylbenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,4-Trimethylbenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
sec-Butylbenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,3-Dichlorobenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
4-Isopropyltoluene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,4-Dichlorobenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dichlorobenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
n-Butylbenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2-Dibromo-3-chloropropane	0.29 U	0.29	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,4-Trichlorobenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Hexachlorobutadiene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Naphthalene	0.111	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
1,2,3-Trichlorobenzene	0.029 U	0.029	mg/Kg	SW846-8260		07/20/99	07/30/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	87.5		%	SW846-8260	(74-123)	07/20/99	07/30/99	
Dibromofluoromethane <surr>	96		%	SW846-8260	(80-118)	07/20/99	07/30/99	
Toluene-d8 <surr>	99.2		%	SW846-8260	(79-130)	07/20/99	07/30/99	
4-Bromofluorobenzene <Surr> !	68		%	SW846-8260	(71-141)	07/20/99	07/30/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyridine	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Aniline	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenol	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethyl)ether	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chlorophenol	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,3-Dichlorobenzene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

CT&E Environmental Services Inc.

CT&E Ref.#	993745014	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 04:00
Client Sample ID	99SLRDMA02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
1,4-Dichlorobenzene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzyl alcohol	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2-Dichlorobenzene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylphenol (o-Cresol)	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-chloroisopropyl)ether	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitroso-di-n-propylamine	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachloroethane	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Nitrobenzene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Isophorone	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitrophenol	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dimethylphenol	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzoic acid	1.7 U	1.7	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethoxy)methane	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2,4-Trichlorobenzene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Naphthalene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloroaniline	0.70 U	0.70	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobutadiene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloro-3-methylphenol	0.70 U	0.70	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dichlorophenol	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylnaphthalene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorocyclopentadiene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,6-Trichlorophenol	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,5-Trichlorophenol	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chloronaphthalene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitroaniline	1.7 U	1.7	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dimethylphthalate	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthylene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,6-Dinitrotoluene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3-Nitroaniline	1.7 U	1.7	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrophenol	1.7 U	1.7	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745014	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 04:00
Client Sample ID	99SLRDMA02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
4-Nitrophenol	1.7 U	1.7	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzofuran	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrotoluene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Diethylphthalate	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chlorophenyl-phenylether	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluorene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitroaniline	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methyl-4,6-dinitrophenol	1.7 U	1.7	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitrosodiphenylamine	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Bromophenyl-phenylether	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobenzene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pentachlorophenol	1.7 U	1.7	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenanthrene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Anthracene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Di-n-butylphthalate	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluoranthene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyrene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Azobenzene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Butylbenzylphthalate	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3,3-Dichlorobenzidine	0.70 U	0.70	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo(a)Anthracene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Chrysene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-Ethylhexyl)phthalate	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
di-n-Octylphthalate	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[b]Fluoranthene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[k]fluoranthene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[a]pyrene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Indeno[1,2,3-c,d] pyrene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzo[a,h]anthracene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[g,h,i]perylene	0.34 U	0.34	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745014	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 04:00
Client Sample ID	99SLRDMA02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Surrogates								
2,4,6-Tribromophenol <Surr>	63		%	SW846-8270	(18-122)	08/02/99	08/04/99	
Phenol-d6 <Surr>	63.3		%	SW846-8270	(24-88)	08/02/99	08/04/99	
Terphenyl-d14 <Surr>	114		%	SW846-8270	(21-142)	08/02/99	08/04/99	
2-Fluorobiphenyl <Surr>	63.4		%	SW846-8270	(30-103)	08/02/99	08/04/99	
2-Fluorophenol <Surr>	52.8		%	SW846-8270	(18-83)	08/02/99	08/04/99	
Nitrobenzene-d5 <Surr>	64.8		%	SW846-8270	(18-109)	08/02/99	08/04/99	
PCB's by GC ECD								
Aroclor-1016	0.00336 U	0.00336	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1221	0.00336 U	0.00336	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1232	0.00336 U	0.00336	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1242	0.00336 U	0.00336	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1248	0.00336 U	0.00336	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1254	0.00336 U	0.00336	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1260	0.00336 U	0.00336	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	96.6		%	SW846 8082	(53.3-125)	08/02/99	08/05/99	
Pesticides								
alpha-BHC	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
beta-BHC	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-Chlordane	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
alpha-Chlordane	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-BHC (Lindane)	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
delta-BHC	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745014	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/20/99 04:00
Client Sample ID	99SLRDMA02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director:**	**Stephen C. Ede**
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Heptachlor	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Aldrin	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor epoxide	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan I	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDE	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Dieldrin	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan II	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDD	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin aldehyde	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDT	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan sulfate	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin ketone	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Methoxychlor	0.00101 U	0.00101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Toxaphene	0.101 U	0.101	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	74.1		%	SW846-8081A	(46-154)	08/02/99	08/09/99	
Tetrachloro-m-xylene <Surr>	73.7		%	SW846-8081A	(25-120)	08/02/99	08/09/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745015	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 10:30
Client Sample ID	99SLRDMD03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	

Sample Remarks:
8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.
8270 - Internal standard acenaphthene-d10, phenanthrene-d10, chrysene-d12, and phenanthrene-d12 is biased low. The samples are non-detect. The results are not affected.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	84.3		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Antimony	83.8	22.9	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	229 U	229	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	145	4.18	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.652	0.229	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.459	0.229	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	1430	418	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	17.9	2.29	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	15.6	4.18	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	106	4.18	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	39.2	2.29	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	1400	41.8	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	660	8.35	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	344	13.9	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	42.2	8.35	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	665	188	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.229 U	0.229	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.179	0.0459	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Thallium	0.229 U	0.229	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	29.1	4.18	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Zinc	123	8.35	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745015	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 10:30
Client Sample ID	99SLRDMD03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Chloromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Vinyl chloride	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromomethane	0.49 U	0.49	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Chloroethane	0.49 U	0.49	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Trichlorofluoromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1-Dichloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Carbon disulfide	0.49 U	0.49	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Methylene chloride	0.24 U	0.24	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
trans-1,2-Dichloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1-Dichloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2-Butanone (MEK)	0.49 U	0.49	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2,2-Dichloropropane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
cis-1,2-Dichloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromochloromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Chloroform	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1,1-Trichloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Carbon tetrachloride	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1-Dichloropropene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Benzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dichloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Trichloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dichloropropane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Dibromomethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromodichloromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2-chloroethylvinyl ether	0.49 U	0.49	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
cis-1,3-Dichloropropene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
4-Methyl-2-pentanone (MIBK)	0.49 U	0.49	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Toluene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745015	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 10:30
Client Sample ID	99SLRDMD03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
trans-1,3-Dichloropropene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1,2-Trichloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Tetrachloroethene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,3-Dichloropropane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2-Hexanone	0.49 U	0.49	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Dibromochloromethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dibromoethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Chlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1,1,2-Tetrachloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Ethylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
P & M -Xylene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
o-Xylene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Styrene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromoform	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Isopropylbenzene (Cumene)	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1,2,2-Tetrachloroethane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2,3-Trichloropropane	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
n-Propylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2-Chlorotoluene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
4-Chlorotoluene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,3,5-Trimethylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
tert-Butylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2,4-Trimethylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
sec-Butylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,3-Dichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
4-Isopropyltoluene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,4-Dichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
n-Butylbenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dibromo-3-chloropropane	0.49 U	0.49	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2,4-Trichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS

CT&E Environmental Services Inc.

CT&E Ref.#	993745015	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 10:30
Client Sample ID	99SLRDMD03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Hexachlorobutadiene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Naphthalene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2,3-Trichlorobenzene	0.049 U	0.049	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	88.7		%	SW846-8260	(74-123)	07/21/99	07/30/99	
Dibromofluoromethane <surr>	96.5		%	SW846-8260	(80-118)	07/21/99	07/30/99	
Toluene-d8 <surr>	102		%	SW846-8260	(79-130)	07/21/99	07/30/99	
4-Bromofluorobenzene <Surr>	74.3		%	SW846-8260	(71-141)	07/21/99	07/30/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyridine	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Aniline	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethyl)ether	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chlorophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,3-Dichlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,4-Dichlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzyl alcohol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2-Dichlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylphenol (o-Cresol)	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-chloroisopropyl)ether	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitroso-di-n-propylamine	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachloroethane	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Nitrobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Isophorone	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitrophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dimethylphenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

CT&E Environmental Services Inc.

CT&E Ref.#	993745015	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 10:30
Client Sample ID	99SLRDMD03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Benzoic acid	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethoxy)methane	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2,4-Trichlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Naphthalene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloroaniline	0.73 U	0.73	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobutadiene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloro-3-methylphenol	0.73 U	0.73	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dichlorophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylnaphthalene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorocyclopentadiene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,6-Trichlorophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,5-Trichlorophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chloronaphthalene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitroaniline	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dimethylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthylene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,6-Dinitrotoluene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3-Nitroaniline	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitrophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzofuran	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrotoluene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Diethylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chlorophenyl-phenylether	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluorene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitroaniline	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methyl-4,6-dinitrophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitrosodiphenylamine	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Bromophenyl-phenylether	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pentachlorophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

CT&E Environmental Services Inc.

CT&E Ref.#	993745015	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 10:30
Client Sample ID	99SLRDMD03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Phenanthrene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Anthracene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Di-n-butylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluoranthene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyrene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Azobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Butylbenzylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3,3-Dichlorobenzidine	0.73 U	0.73	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo(a)Anthracene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Chrysene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-Ethylhexyl)phthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
di-n-Octylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[b]Fluoranthene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[k]fluoranthene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[a]pyrene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Indeno[1,2,3-c,d] pyrene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzo[a,h]anthracene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[g,h,i]perylene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	78.4		%	SW846-8270	(18-122)	08/02/99	08/04/99	
Phenol-d6 <Surr>	60.3		%	SW846-8270	(24-88)	08/02/99	08/04/99	
Terphenyl-d14 <Surr>	128		%	SW846-8270	(21-142)	08/02/99	08/04/99	
2-Fluorobiphenyl <Surr>	75.6		%	SW846-8270	(30-103)	08/02/99	08/04/99	
2-Fluorophenol <Surr>	49.8		%	SW846-8270	(18-83)	08/02/99	08/04/99	
Nitrobenzene-d5 <Surr>	60.4		%	SW846-8270	(18-109)	08/02/99	08/04/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745015	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:11
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 10:30
Client Sample ID	99SLRDMD03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.00389 U	0.00389	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1221	0.00389 U	0.00389	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1232	0.00389 U	0.00389	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1242	0.00389 U	0.00389	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1248	0.00389 U	0.00389	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1254	0.00389 U	0.00389	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1260	0.00389 U	0.00389	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	62.7		%	SW846 8082	(53.3-125)	08/02/99	08/05/99	
Pesticides								
alpha-BHC	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
beta-BHC	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-Chlordane	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
alpha-Chlordane	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-BHC (Lindane)	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
delta-BHC	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Aldrin	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor epoxide	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan I	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDE	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Dieldrin	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan II	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDD	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745015	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 10:30
Client Sample ID	99SLRDMD03	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Endrin aldehyde	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDT	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan sulfate	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin ketone	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Methoxychlor	0.00972 U	0.00972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Toxaphene	0.972 U	0.972	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	87.5		%	SW846-8081A	(46-154)	08/02/99	08/09/99	
Tetrachloro-m-xylene <Surr>	77.5		%	SW846-8081A	(25-120)	08/02/99	08/09/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745016	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 01:45
Client Sample ID	99SLRDMD04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
8270 - Internal standard phenanthrene-d10, chrysene-d12, and phenanthrene-d12 is biased low. The samples are non-detect. The results are not affected.
8270- Surrogate recovery for terphenyl-d14 is biased high possibly due to matrix.
8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	91.2		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Antimony	1000	225	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	8740	450	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	416	4.18	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.724	0.225	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.340	0.0225	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	3750	418	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	24.4	2.25	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	14.5	4.18	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	59.1	4.18	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	9.76	2.25	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	3340	41.8	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	580	8.36	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	311	10.2	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	43.3	8.36	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	1690	188	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.225 U	0.225	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.0661	0.0450	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Thallium	0.265	0.225	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	23.2	4.18	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745016	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 01:45
Client Sample ID	99SLRDMD04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Zinc	93.6	8.36	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Chloromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Vinyl chloride	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromomethane	0.31 U	0.31	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Chloroethane	0.31 U	0.31	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Trichlorofluoromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1-Dichloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Carbon disulfide	0.31 U	0.31	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Methylene chloride	0.16 U	0.16	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
trans-1,2-Dichloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1-Dichloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2-Butanone (MEK)	0.31 U	0.31	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2,2-Dichloropropane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
cis-1,2-Dichloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromochloromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Chloroform	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1,1-Trichloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Carbon tetrachloride	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1-Dichloropropene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Benzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dichloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Trichloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dichloropropane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Dibromomethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromodichloromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2-chloroethylvinyl ether	0.31 U	0.31	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
cis-1,3-Dichloropropene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
4-Methyl-2-pentanone (MIBK)	0.31 U	0.31	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745016	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 01:45
Client Sample ID	99SLRDMD04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Toluene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
trans-1,3-Dichloropropene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1,2-Trichloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Tetrachloroethene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,3-Dichloropropane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2-Hexanone	0.31 U	0.31	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Dibromochloromethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dibromoethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Chlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1,1,2-Tetrachloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Ethylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
P & M -Xylene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
o-Xylene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Styrene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromoform	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Isopropylbenzene (Cumene)	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Bromobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,1,2,2-Tetrachloroethane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2,3-Trichloropropane	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
n-Propylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
2-Chlorotoluene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
4-Chlorotoluene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,3,5-Trimethylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
tert-Butylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2,4-Trimethylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
sec-Butylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,3-Dichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
4-Isopropyltoluene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,4-Dichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
n-Butylbenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2-Dibromo-3-chloropropane	0.31 U	0.31	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS

CT&E Environmental Services Inc.

CT&E Ref.#	993745016	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#.	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 01:45
Client Sample ID	99SLRDMD04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
1,2,4-Trichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Hexachlorobutadiene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Naphthalene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
1,2,3-Trichlorobenzene	0.031 U	0.031	mg/Kg	SW846-8260		07/21/99	07/30/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	88.3		%	SW846-8260	(74-123)	07/21/99	07/30/99	
Dibromofluoromethane <surr>	95.7		%	SW846-8260	(80-118)	07/21/99	07/30/99	
Toluene-d8 <surr>	99.6		%	SW846-8260	(79-130)	07/21/99	07/30/99	
4-Bromofluorobenzene <Surr>	78.4		%	SW846-8260	(71-141)	07/21/99	07/30/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyridine	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Aniline	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenol	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethyl)ether	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chlorophenol	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,3-Dichlorobenzene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,4-Dichlorobenzene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzyl alcohol	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2-Dichlorobenzene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylphenol (o-Cresol)	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-chloroisopropyl)ether	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitroso-di-n-propylamine	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachloroethane	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Nitrobenzene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Isophorone	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitrophenol	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745016	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 01:45
Client Sample ID	99SLRDMD04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2,4-Dimethylphenol	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzoic acid	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethoxy)methane	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2,4-Trichlorobenzene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Naphthalene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloroaniline	0.71 U	0.71	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobutadiene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloro-3-methylphenol	0.71 U	0.71	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dichlorophenol	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylnaphthalene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorocyclopentadiene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,6-Trichlorophenol	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,5-Trichlorophenol	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chloronaphthalene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitroaniline	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dimethylphthalate	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthylene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,6-Dinitrotoluene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3-Nitroaniline	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitrophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzofuran	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrotoluene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Diethylphthalate	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chlorophenyl-phenylether	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluorene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitroaniline	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methyl-4,6-dinitrophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitrosodiphenylamine	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Bromophenyl-phenylether	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobenzene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

CT&E Environmental Services Inc.

CT&E Ref.#	993745016	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 01:45
Client Sample ID	99SLRDMD04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Pentachlorophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenanthrene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Anthracene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Di-n-butylphthalate	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluoranthene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyrene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Azobenzene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Butylbenzylphthalate	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3,3-Dichlorobenzidine	0.71 U	0.71	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo(a)Anthracene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Chrysene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-Ethylhexyl)phthalate	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
di-n-Octylphthalate	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[b]Fluoranthene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[k]fluoranthene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[a]pyrene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Indeno[1,2,3-c,d] pyrene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzo[a,h]anthracene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[g,h,i]perylene	0.35 U	0.35	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	80.6		%	SW846-8270	(18-122)	08/02/99	08/04/99	
Phenol-d6 <Surr>	67.7		%	SW846-8270	(24-88)	08/02/99	08/04/99	
Terphenyl-d14 <Surr>	161		%	SW846-8270	(21-142)	08/02/99	08/04/99	
2-Fluorobiphenyl <Surr>	77.2		%	SW846-8270	(30-103)	08/02/99	08/04/99	
2-Fluorophenol <Surr>	56.3		%	SW846-8270	(18-83)	08/02/99	08/04/99	
Nitrobenzene-d5 <Surr>	70.9		%	SW846-8270	(18-109)	08/02/99	08/04/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745016	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 01:45
Client Sample ID	99SLRDMD04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.00360 U	0.00360	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1221	0.00360 U	0.00360	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1232	0.00360 U	0.00360	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1242	0.00360 U	0.00360	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1248	0.00360 U	0.00360	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1254	0.00360 U	0.00360	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1260	0.00360 U	0.00360	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	90.1		%	SW846 8082	(53.3-125)	08/02/99	08/05/99	
Pesticides								
alpha-BHC	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
beta-BHC	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-Chlordane	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
alpha-Chlordane	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-BHC (Lindane)	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
delta-BHC	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Aldrin	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor epoxide	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan I	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDE	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Dieldrin	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan II	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDD	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745016	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/21/99 01:45
Client Sample ID	99SLRDMD04	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Endrin aldehyde	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDT	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan sulfate	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin ketone	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Methoxychlor	0.00899 U	0.00899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Toxaphene	0.899 U	0.899	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	112		%	SW846-8081A	(46-154)	08/02/99	08/09/99	
Tetrachloro-m-xylene <Surr>	85		%	SW846-8081A	(25-120)	08/02/99	08/09/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745017	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:10
Client Sample ID	99SLRDMC01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.
8270 - Internal standard chrysene-d12, and phenanthrene-d12 is biased low. The samples are non-detect. The results are not affected.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	80.0		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Antimony	503	249	mg/Kg	SW846-7041		08/04/99	08/09/99	KGF
Arsenic	498 U	498	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	170	4.69	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.783	0.249	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	0.733	0.249	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	3830	469	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	255	24.9	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	17.6	4.69	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	246	4.69	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	20.3	2.49	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	1050	46.9	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	676	9.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	185	9.28	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	40.2	9.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	677	211	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.249 U	0.249	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.309	0.0498	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	4550	469	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.249 U	0.249	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	24.7	4.69	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745017	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:10
Client Sample ID	99SLRDMC01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Zinc	121	9.38	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Chloromethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Vinyl chloride	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromomethane	0.47 U	0.47	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Chloroethane	0.47 U	0.47	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Trichlorofluoromethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1-Dichloroethene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Carbon disulfide	0.47 U	0.47	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Methylene chloride	0.24 U	0.24	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
trans-1,2-Dichloroethene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1-Dichloroethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2-Butanone (MEK)	0.47 U	0.47	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2,2-Dichloropropane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
cis-1,2-Dichloroethene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromochloromethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Chloroform	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1,1-Trichloroethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Carbon tetrachloride	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1-Dichloropropene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Benzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dichloroethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Trichloroethene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dichloropropane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Dibromomethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromodichloromethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2-chloroethylvinyl ether	0.47 U	0.47	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
cis-1,3-Dichloropropene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
4-Methyl-2-pentanone (MIBK)	0.47 U	0.47	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS

CT&E Environmental Services Inc.

CT&E Ref.#	993745017	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:10
Client Sample ID	99SLRDMC01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Toluene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
trans-1,3-Dichloropropene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1,2-Trichloroethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Tetrachloroethene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,3-Dichloropropane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2-Hexanone	0.47 U	0.47	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Dibromochloromethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dibromoethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Chlorobenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1,1,2-Tetrachloroethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Ethylbenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
P & M -Xylene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
o-Xylene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Styrene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromoform	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Isopropylbenzene (Cumene)	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromobenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1,2,2-Tetrachloroethane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2,3-Trichloropropane	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
n-Propylbenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2-Chlorotoluene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
4-Chlorotoluene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,3,5-Trimethylbenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
tert-Butylbenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2,4-Trimethylbenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
sec-Butylbenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,3-Dichlorobenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
4-Isopropyltoluene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,4-Dichlorobenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dichlorobenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
n-Butylbenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dibromo-3-chloropropane	0.47 U	0.47	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745017	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:10
Client Sample ID	99SLRDMC01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
1,2,4-Trichlorobenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Hexachlorobutadiene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Naphthalene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2,3-Trichlorobenzene	0.047 U	0.047	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	88.6		%	SW846-8260	(74-123)	07/22/99	07/30/99	
Dibromofluoromethane <surr>	95.2		%	SW846-8260	(80-118)	07/22/99	07/30/99	
Toluene-d8 <surr>	99.8		%	SW846-8260	(79-130)	07/22/99	07/30/99	
4-Bromofluorobenzene <Surr>	85.8		%	SW846-8260	(71-141)	07/22/99	07/30/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyridine	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Aniline	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenol	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethyl)ether	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chlorophenol	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,3-Dichlorobenzene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,4-Dichlorobenzene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzyl alcohol	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2-Dichlorobenzene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylphenol (o-Cresol)	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-chloroisopropyl)ether	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitroso-di-n-propylamine	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachloroethane	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Nitrobenzene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Isophorone	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitrophenol	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745017	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:10
Client Sample ID	99SLRDMC01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2,4-Dimethylphenol	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzoic acid	2.0 U	2.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethoxy)methane	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2,4-Trichlorobenzene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Naphthalene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloroaniline	0.82 U	0.82	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobutadiene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloro-3-methylphenol	0.82 U	0.82	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dichlorophenol	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylnaphthalene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorocyclopentadiene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,6-Trichlorophenol	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,5-Trichlorophenol	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chloronaphthalene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitroaniline	2.0 U	2.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dimethylphthalate	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthylene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,6-Dinitrotoluene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3-Nitroaniline	2.0 U	2.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrophenol	2.0 U	2.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitrophenol	2.0 U	2.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzofuran	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrotoluene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Diethylphthalate	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chlorophenyl-phenylether	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluorene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitroaniline	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methyl-4,6-dinitrophenol	2.0 U	2.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitrosodiphenylamine	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Bromophenyl-phenylether	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobenzene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745017	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:10
Client Sample ID	99SLRDMC01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Pentachlorophenol	2.0 U	2.0	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenanthrene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Anthracene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Di-n-butylphthalate	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluoranthene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyrene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Azobenzene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Butylbenzylphthalate	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3,3-Dichlorobenzidine	0.82 U	0.82	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo(a)Anthracene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Chrysene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-Ethylhexyl)phthalate	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
di-n-Octylphthalate	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[b]Fluoranthene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[k]fluoranthene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[a]pyrene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Indeno[1,2,3-c,d] pyrene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzo[a,h]anthracene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[g,h,i]perylene	0.40 U	0.40	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	61.3		%	SW846-8270	(18-122)	08/02/99	08/04/99	
Phenol-d6 <Surr>	66.1		%	SW846-8270	(24-88)	08/02/99	08/04/99	
Terphenyl-d14 <Surr>	138		%	SW846-8270	(21-142)	08/02/99	08/04/99	
2-Fluorobiphenyl <Surr>	65.4		%	SW846-8270	(30-103)	08/02/99	08/04/99	
2-Fluorophenol <Surr>	55.7		%	SW846-8270	(18-83)	08/02/99	08/04/99	
Nitrobenzene-d5 <Surr>	66.3		%	SW846-8270	(18-109)	08/02/99	08/04/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745017	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:10
Client Sample ID	99SLRDMC01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.00411 U	0.00411	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1221	0.00411 U	0.00411	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1232	0.00411 U	0.00411	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1242	0.00411 U	0.00411	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1248	0.00411 U	0.00411	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1254	0.00411 U	0.00411	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1260	0.00411 U	0.00411	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	113		%	SW846 8082	(53.3-125)	08/02/99	08/05/99	
Pesticides								
alpha-BHC	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
beta-BHC	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-Chlordane	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
alpha-Chlordane	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-BHC (Lindane)	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
delta-BHC	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Aldrin	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor epoxide	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan I	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDE	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Dieldrin	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan II	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDD	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745017	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:10
Client Sample ID	99SLRDMC01	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Endrin aldehyde	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDT	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan sulfate	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin ketone	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Methoxychlor	0.0103 U	0.0103	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Toxaphene	1.03 U	1.03	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	95		%	SW846-8081A	(46-154)	08/02/99	08/09/99	
Tetrachloro-m-xylene <Surr>	87.5		%	SW846-8081A	(25-120)	08/02/99	08/09/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745018	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:20
Client Sample ID	99SLRDMC02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:
8270 - Internal standard chrysene-d12, and phenanthrene-d12 is biased low. The samples are non-detect. The results are not affected.
8270 - CCV recovery for 2,4-dinitrophenol is biased low. The results for this compound are estimated.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	87.6		%	SM18 2540G			07/30/99	MPA
Target Analyte List								
Antimony	566	469	mg/Kg	SW846-7041		08/04/99	08/12/99	KGF
Arsenic	720	235	mg/Kg	SW846 7060		08/04/99	08/10/99	JMO
Barium	183	4.56	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Beryllium	0.779	0.235	mg/Kg	SW846-7091		08/04/99	08/05/99	KGF
Cadmium	1.05	0.235	mg/Kg	SW846-7131		08/04/99	08/05/99	KGF
Calcium	3700	456	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Chromium	22.1	2.35	mg/Kg	SW846-7191		08/04/99	08/10/99	KGF
Cobalt	19.2	4.56	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Copper	91.6	4.56	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Lead	37.7	2.35	mg/Kg	SW846-7421		08/04/99	08/11/99	KGF
Magnesium	1150	45.6	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Manganese	868	9.11	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Mercury by Cold Vapor	35300	1570	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV
Nickel	57.1	9.11	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Potassium	892	205	mg/Kg	SW846 6010B		08/04/99	08/06/99	WTA
Selenium	0.235 U	0.235	mg/Kg	SW846-7740		08/04/99	08/12/99	JMO
Silver	0.0657	0.0469	mg/Kg	SW846-7761		08/04/99	08/05/99	KGF
Sodium	3640	456	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
Thallium	0.235 U	0.235	mg/Kg	SW846-7841		08/04/99	08/09/99	KGF
Vanadium	22.8	4.56	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745018	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:20
Client Sample ID	99SLRDMC02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Zinc	196	9.11	mg/Kg	SW846 6010B		08/04/99	08/05/99	WTA
VOA by GC/MS Method SW8260								
Dichlorodifluoromethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Chloromethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Vinyl chloride	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromomethane	0.34 U	0.34	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Chloroethane	0.34 U	0.34	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Trichlorofluoromethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1-Dichloroethene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Carbon disulfide	0.34 U	0.34	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Methylene chloride	0.17 U	0.17	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
trans-1,2-Dichloroethene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1-Dichloroethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2-Butanone (MEK)	0.34 U	0.34	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2,2-Dichloropropane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
cis-1,2-Dichloroethene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromochloromethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Chloroform	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1,1-Trichloroethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Carbon tetrachloride	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1-Dichloropropene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Benzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dichloroethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Trichloroethene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dichloropropane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Dibromomethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromodichloromethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2-chloroethylvinyl ether	0.34 U	0.34	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
cis-1,3-Dichloropropene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
4-Methyl-2-pentanone (MIBK)	0.34 U	0.34	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745018	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:20
Client Sample ID	99SLRDMC02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Toluene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
trans-1,3-Dichloropropene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1,2-Trichloroethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Tetrachloroethene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,3-Dichloropropane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2-Hexanone	0.34 U	0.34	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Dibromochloromethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dibromoethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Chlorobenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1,1,2-Tetrachloroethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Ethylbenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
P & M -Xylene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
o-Xylene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Styrene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromoform	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Isopropylbenzene (Cumene)	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Bromobenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,1,2,2-Tetrachloroethane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2,3-Trichloropropane	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
n-Propylbenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
2-Chlorotoluene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
4-Chlorotoluene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,3,5-Trimethylbenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
tert-Butylbenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2,4-Trimethylbenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
sec-Butylbenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,3-Dichlorobenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
4-Isopropyltoluene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,4-Dichlorobenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dichlorobenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
n-Butylbenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2-Dibromo-3-chloropropane	0.34 U	0.34	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745018	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:20
Client Sample ID	99SLRDMC02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
1,2,4-Trichlorobenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Hexachlorobutadiene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Naphthalene	0.0487	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
1,2,3-Trichlorobenzene	0.034 U	0.034	mg/Kg	SW846-8260		07/22/99	07/30/99	DRS
Surrogates								
1,2-Dichloroethane-D4 <surr>	90.9		%	SW846-8260	(74-123)	07/22/99	07/30/99	
Dibromofluoromethane <surr>	97.3		%	SW846-8260	(80-118)	07/22/99	07/30/99	
Toluene-d8 <surr>	104		%	SW846-8260	(79-130)	07/22/99	07/30/99	
4-Bromofluorobenzene <Surr>	82.7		%	SW846-8260	(71-141)	07/22/99	07/30/99	
Semivolatiles by GC/MS								
N-Nitrosodimethylamine	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyridine	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Aniline	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethyl)ether	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chlorophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,3-Dichlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,4-Dichlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzyl alcohol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2-Dichlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylphenol (o-Cresol)	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-chloroisopropyl)ether	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3&4-Methylphenol (p&m-Cresol)	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitroso-di-n-propylamine	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachloroethane	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Nitrobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Isophorone	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitrophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745018	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:20
Client Sample ID	99SLRDMC02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
2,4-Dimethylphenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzoic acid	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Bis(2-Chloroethoxy)methane	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
1,2,4-Trichlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Naphthalene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloroaniline	0.73 U	0.73	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobutadiene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chloro-3-methylphenol	0.73 U	0.73	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dichlorophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methylnaphthalene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorocyclopentadiene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,6-Trichlorophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4,5-Trichlorophenol	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Chloronaphthalene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Nitroaniline	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dimethylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthylene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,6-Dinitrotoluene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3-Nitroaniline	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Acenaphthene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitrophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzofuran	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2,4-Dinitrotoluene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Diethylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Chlorophenyl-phenylether	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluorene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Nitroaniline	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
2-Methyl-4,6-dinitrophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
N-Nitrosodiphenylamine	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
4-Bromophenyl-phenylether	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Hexachlorobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745018	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:12
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:20
Client Sample ID	99SLRDMC02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Pentachlorophenol	1.8 U	1.8	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Phenanthrene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Anthracene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Di-n-butylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Fluoranthene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Pyrene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Azobenzene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Butylbenzylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
3,3-Dichlorobenzidine	0.73 U	0.73	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo(a)Anthracene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Chrysene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
bis(2-Ethylhexyl)phthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
di-n-Octylphthalate	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[b]Fluoranthene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[k]fluoranthene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[a]pyrene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Indeno[1,2,3-c,d] pyrene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Dibenzo[a,h]anthracene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Benzo[g,h,i]perylene	0.36 U	0.36	mg/Kg	SW846-8270		08/02/99	08/04/99	LZ
Surrogates								
2,4,6-Tribromophenol <Surr>	48.4		%	SW846-8270	(18-122)	08/02/99	08/04/99	
Phenol-d6 <Surr>	61		%	SW846-8270	(24-88)	08/02/99	08/04/99	
Terphenyl-d14 <Surr>	119		%	SW846-8270	(21-142)	08/02/99	08/04/99	
2-Fluorobiphenyl <Surr>	58.8		%	SW846-8270	(30-103)	08/02/99	08/04/99	
2-Fluorophenol <Surr>	52.6		%	SW846-8270	(18-83)	08/02/99	08/04/99	
Nitrobenzene-d5 <Surr>	63.4		%	SW846-8270	(18-109)	08/02/99	08/04/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745018	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:13
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:20
Client Sample ID	99SLRDMC02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
PCB's by GC ECD								
Aroclor-1016	0.00364 U	0.00364	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1221	0.00364 U	0.00364	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1232	0.00364 U	0.00364	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1242	0.00364 U	0.00364	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1248	0.00364 U	0.00364	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1254	0.00364 U	0.00364	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Aroclor-1260	0.00364 U	0.00364	mg/Kg	SW846 8082		08/02/99	08/05/99	WAA
Surrogates								
Decachlorobiphenyl <Surr>	86.7		%	SW846 8082	(53.3-125)	08/02/99	08/05/99	
Pesticides								
alpha-BHC	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
beta-BHC	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-Chlordane	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
alpha-Chlordane	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
gamma-BHC (Lindane)	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
delta-BHC	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Aldrin	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Heptachlor epoxide	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan I	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDE	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Dieldrin	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan II	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDD	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745018	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:13
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:20
Client Sample ID	99SLRDMC02	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID			

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Endrin aldehyde	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
4,4'-DDT	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endosulfan sulfate	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Endrin ketone	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Methoxychlor	0.00364 U	0.00364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Toxaphene	0.364 U	0.364	mg/Kg	SW846-8081A		08/02/99	08/09/99	LZ
Surrogates								
Decachlorobiphenyl <Surr>	88		%	SW846-8081A	(46-154)	08/02/99	08/09/99	
Tetrachloro-m-xylene <Surr>	69		%	SW846-8081A	(25-120)	08/02/99	08/09/99	

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745019	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:13
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:35
Client Sample ID	99SLRDMR05	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	86.4		%	SM18 2540G			07/30/99	MPA
Mercury by Cold Vapor	23800	2230	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV

F-701

CT&E Environmental Services Inc.

CT&E Ref.#	993745020	**Client PO#**	
Client Name	Harding Lawson & Assoc	**Printed Date/Time**	08/19/99 16:13
Project Name/#	47411 Red Devil Mine	**Collected Date/Time**	07/22/99 04:45
Client Sample ID	99SLRDMR06	**Received Date/Time**	07/27/99 14:00
Matrix	Soil/Solid	**Technical Director: Stephen C. Ede**	
Ordered By			
PWSID		**Released By**	J Windebank

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
^								
Total Solids	87.9		%	SM18 2540G			08/02/99	MPA
Mercury by Cold Vapor	4010	113	mg/Kg	SW846-7471		08/16/99	08/16/99	RMV

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	47411 Red Devil Mine
QC Batch	SPT 2850 (63612)
Original Matrix	Soil/Solid
Analysis Method	SM18 2540G

QC results affect the following production samples:

993745001	993745002	993745003	993745004	993745005
993745006	993745007	993745008	993745009	993745010
993745011	993745012	993745013	993745014	993745015
993745016	993745017	993745018	993745019	

QC results for Method Blank [249573]

Run Instrument:

Parameter	Analyzed	Result	PQL	Units
Total Solids	07/30/99	99.9		%

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	47411 Red Devil Mine
QC Batch	SPT 2850 (63612)
Original	993745001
Matrix	Soil/Solid
Analysis Method	SM18 2540G

QC results affect the following production samples:

993745001	993745002	993745003	993745004	993745005
993745006	993745007	993745008	993745009	993745010
993745011	993745012	993745013	993745014	993745015
993745016	993745017	993745018	993745019	

QC results for Duplicate [249574]

Parameter	Original Result	QC Result	RPD	RPD Limits	Analyzed	Instru ID
Total Solids	82.9	88.3	6.4		07/30/99	

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	SPT 2855 (63747)		
Original Matrix	Soil/Solid	**Analysis Method**	SM18 2540G

QC results affect the following production samples:

993745020

QC results for Method Blank [250214]

Run Instrument:

Parameter	Analyzed	Result	PQL	Units
Total Solids	08/02/99	100		%

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc
Workorder	47411 Red Devil Mine
QC Batch	SPT 2855 (63747)
Original	993813001
Matrix	Soil/Solid
Analysis Method	SM18 2540G

QC results affect the following production samples:

993745020

QC results for Duplicate [250215]

Parameter	Original Result	QC Result	RPD	RPD Limits	Analyzed	Instru ID
Total Solids	86.7	87.1	.51		08/02/99	

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results affect the following production samples:

993745011	993745012	993745013	993745014	993745015
993745016	993745017	993745018		

QC results for Method Blank [249016]

Run Instrument: HP 5890 Series II MS1 VMA

Parameter	Analyzed	Result	PQL	Units
Dichlorodifluoromethane	07/29/99	0.050 U	0.050	mg/Kg
Chloromethane	07/29/99	0.050 U	0.050	mg/Kg
Vinyl chloride	07/29/99	0.050 U	0.050	mg/Kg
Bromomethane	07/29/99	0.50 U	0.50	mg/Kg
Chloroethane	07/29/99	0.50 U	0.50	mg/Kg
Trichlorofluoromethane	07/29/99	0.050 U	0.050	mg/Kg
1,1-Dichloroethene	07/29/99	0.050 U	0.050	mg/Kg
Carbon disulfide	07/29/99	0.50 U	0.50	mg/Kg
Methylene chloride	07/29/99	0.25 U	0.25	mg/Kg
trans-1,2-Dichloroethene	07/29/99	0.050 U	0.050	mg/Kg
1,1-Dichloroethane	07/29/99	0.050 U	0.050	mg/Kg
2-Butanone (MEK)	07/29/99	0.50 U	0.50	mg/Kg
2,2-Dichloropropane	07/29/99	0.050 U	0.050	mg/Kg
cis-1,2-Dichloroethene	07/29/99	0.050 U	0.050	mg/Kg
Bromochloromethane	07/29/99	0.050 U	0.050	mg/Kg
Chloroform	07/29/99	0.050 U	0.050	mg/Kg
1,1,1-Trichloroethane	07/29/99	0.050 U	0.050	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Method Blank [249016] (continued)

Run Instrument: HP 5890 Series II MS1 VMA

Parameter	Analyzed	Result	PQL	Units
Carbon tetrachloride	07/29/99	0.050 U	0.050	mg/Kg
1,1-Dichloropropene	07/29/99	0.050 U	0.050	mg/Kg
Benzene	07/29/99	0.050 U	0.050	mg/Kg
1,2-Dichloroethane	07/29/99	0.050 U	0.050	mg/Kg
Trichloroethene	07/29/99	0.050 U	0.050	mg/Kg
1,2-Dichloropropane	07/29/99	0.050 U	0.050	mg/Kg
Dibromomethane	07/29/99	0.050 U	0.050	mg/Kg
Bromodichloromethane	07/29/99	0.050 U	0.050	mg/Kg
2-chloroethylvinyl ether	07/29/99	0.50 U	0.50	mg/Kg
cis-1,3-Dichloropropene	07/29/99	0.050 U	0.050	mg/Kg
4-Methyl-2-pentanone (MIBK)	07/29/99	0.50 U	0.50	mg/Kg
Toluene	07/29/99	0.050 U	0.050	mg/Kg
trans-1,3-Dichloropropene	07/29/99	0.050 U	0.050	mg/Kg
1,1,2-Trichloroethane	07/29/99	0.050 U	0.050	mg/Kg
Tetrachloroethene	07/29/99	0.050 U	0.050	mg/Kg
1,3-Dichloropropane	07/29/99	0.050 U	0.050	mg/Kg
2-Hexanone	07/29/99	0.50 U	0.50	mg/Kg
Dibromochloromethane	07/29/99	0.050 U	0.050	mg/Kg
1,2-Dibromoethane	07/29/99	0.050 U	0.050	mg/Kg
Chlorobenzene	07/29/99	0.050 U	0.050	mg/Kg
1,1,1,2-Tetrachloroethane	07/29/99	0.050 U	0.050	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Method Blank [249016] (continued)

Run Instrument: HP 5890 Series II MS1 VMA

Parameter	Analyzed	Result	PQL	Units
Ethylbenzene	07/29/99	0.050 U	0.050	mg/Kg
P & M -Xylene	07/29/99	0.050 U	0.050	mg/Kg
o-Xylene	07/29/99	0.050 U	0.050	mg/Kg
Styrene	07/29/99	0.050 U	0.050	mg/Kg
Bromoform	07/29/99	0.050 U	0.050	mg/Kg
Isopropylbenzene (Cumene)	07/29/99	0.050 U	0.050	mg/Kg
Bromobenzene	07/29/99	0.050 U	0.050	mg/Kg
1,1,2,2-Tetrachloroethane	07/29/99	0.050 U	0.050	mg/Kg
1,2,3-Trichloropropane	07/29/99	0.050 U	0.050	mg/Kg
n-Propylbenzene	07/29/99	0.050 U	0.050	mg/Kg
2-Chlorotoluene	07/29/99	0.050 U	0.050	mg/Kg
4-Chlorotoluene	07/29/99	0.050 U	0.050	mg/Kg
1,3,5-Trimethylbenzene	07/29/99	0.050 U	0.050	mg/Kg
tert-Butylbenzene	07/29/99	0.050 U	0.050	mg/Kg
1,2,4-Trimethylbenzene	07/29/99	0.050 U	0.050	mg/Kg
sec-Butylbenzene	07/29/99	0.050 U	0.050	mg/Kg
1,3-Dichlorobenzene	07/29/99	0.050 U	0.050	mg/Kg
4-Isopropyltoluene	07/29/99	0.050 U	0.050	mg/Kg
1,4-Dichlorobenzene	07/29/99	0.050 U	0.050	mg/Kg
1,2-Dichlorobenzene	07/29/99	0.050 U	0.050	mg/Kg
n-Butylbenzene	07/29/99	0.050 U	0.050	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Method Blank [249016] (continued)

Run Instrument: HP 5890 Series II MS1 VMA

Parameter	Analyzed	Result	PQL	Units
1,2-Dibromo-3-chloropropane	07/29/99	0.50 U	0.50	mg/Kg
1,2,4-Trichlorobenzene	07/29/99	0.050 U	0.050	mg/Kg
Hexachlorobutadiene	07/29/99	0.050 U	0.050	mg/Kg
Naphthalene	07/29/99	0.050 U	0.050	mg/Kg
1,2,3-Trichlorobenzene	07/29/99	0.050 U	0.050	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results affect the following production samples:

993745011	993745012	993745013	993745014	993745015
993745016	993745017	993745018		

QC results for Lab Check Standard [249017] - Lab Check Standard Duplicate [249018]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Dichlorodifluoromethane	LCS	0.475	94.9	13-190			.5mg/Kg	07/29/99	VMA
	LCSD	0.479	95.7		.84		.5mg/Kg	07/29/99	VMA
Chloromethane	LCS	0.448	89.6	77-140			.5mg/Kg	07/29/99	VMA
	LCSD	0.418	83.6		6.9		.5mg/Kg	07/29/99	VMA
Vinyl chloride	LCS	0.454	90.7	76-137			.5mg/Kg	07/29/99	VMA
	LCSD	0.448	89.5		1.3		.5mg/Kg	07/29/99	VMA
Bromomethane	LCS	0.836	167	65-181			.5mg/Kg	07/29/99	VMA
	LCSD	0.787	157		6.2		.5mg/Kg	07/29/99	VMA
Chloroethane	LCS	0.68	136	64-174			.5mg/Kg	07/29/99	VMA
	LCSD	0.642	128		6.1		.5mg/Kg	07/29/99	VMA
Trichlorofluoromethane	LCS	0.472	94.4	56-147			.5mg/Kg	07/29/99	VMA
	LCSD	0.458	91.5		3.1		.5mg/Kg	07/29/99	VMA
1,1-Dichloroethene	LCS	0.543	109	75-123			.5mg/Kg	07/29/99	VMA
	LCSD	0.542	108		.92		.5mg/Kg	07/29/99	VMA
Carbon disulfide	LCS	0.734	97.8	67-140			.75mg/Kg	07/29/99	VMA
	LCSD	0.768	102		4.2		.75mg/Kg	07/29/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [249017] - Lab Check Standard Duplicate [249018] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Methylene chloride	LCS	0.519	104	53-155			.5mg/Kg	07/29/99	VMA
	LCSD	0.507	101		2.9		.5mg/Kg	07/29/99	VMA
trans-1,2-Dichloroethene	LCS	0.542	108	78-126			.5mg/Kg	07/29/99	VMA
	LCSD	0.526	105		2.8		.5mg/Kg	07/29/99	VMA
1,1-Dichloroethane	LCS	0.508	102	74-130			.5mg/Kg	07/29/99	VMA
	LCSD	0.485	97		5		.5mg/Kg	07/29/99	VMA
2-Butanone (MEK)	LCS	0.747	99.6	75-124			.75mg/Kg	07/29/99	VMA
	LCSD	0.755	101		1.4		.75mg/Kg	07/29/99	VMA
2,2-Dichloropropane	LCS	0.537	107	88-131			.5mg/Kg	07/29/99	VMA
	LCSD	0.513	103		3.8		.5mg/Kg	07/29/99	VMA
cis-1,2-Dichloroethene	LCS	0.528	106	84-124			.5mg/Kg	07/29/99	VMA
	LCSD	0.511	102		3.8		.5mg/Kg	07/29/99	VMA
Bromochloromethane	LCS	0.528	106	81-131			.5mg/Kg	07/29/99	VMA
	LCSD	0.517	103		2.9		.5mg/Kg	07/29/99	VMA
Chloroform	LCS	0.524	105	89-123			.5mg/Kg	07/29/99	VMA
	LCSD	0.506	101		3.9		.5mg/Kg	07/29/99	VMA
1,1,1-Trichloroethane	LCS	0.546	109	85-131			.5mg/Kg	07/29/99	VMA
	LCSD	0.529	106		2.8		.5mg/Kg	07/29/99	VMA
Carbon tetrachloride	LCS	0.577	115	76-139			.5mg/Kg	07/29/99	VMA
	LCSD	0.559	112		2.6		.5mg/Kg	07/29/99	VMA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [249017] - Lab Check Standard Duplicate [249018] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
1,1-Dichloropropene	LCS	0.563	113	92-136			.5mg/Kg	07/29/99	VMA
	LCSD	0.542	108		4.5		.5mg/Kg	07/29/99	VMA
Benzene	LCS	0.516	103	84-117			.5mg/Kg	07/29/99	VMA
	LCSD	0.494	98.8		4.2		.5mg/Kg	07/29/99	VMA
1,2-Dichloroethane	LCS	0.526	105	84-135			.5mg/Kg	07/29/99	VMA
	LCSD	0.514	103		1.9		.5mg/Kg	07/29/99	VMA
Trichloroethene	LCS	0.499	99.8	89-126			.5mg/Kg	07/29/99	VMA
	LCSD	0.493	98.6		1.2		.5mg/Kg	07/29/99	VMA
1,2-Dichloropropane	LCS	0.526	105	94-124			.5mg/Kg	07/29/99	VMA
	LCSD	0.517	103		1.9		.5mg/Kg	07/29/99	VMA
Dibromomethane	LCS	0.518	104	86-124			.5mg/Kg	07/29/99	VMA
	LCSD	0.502	100		3.9		.5mg/Kg	07/29/99	VMA
Bromodichloromethane	LCS	0.521	104	80-121			.5mg/Kg	07/29/99	VMA
	LCSD	0.498	99.6		4.3		.5mg/Kg	07/29/99	VMA
2-chloroethylvinyl ether	LCS	0.72	96	78-122			.75mg/Kg	07/29/99	VMA
	LCSD	0.728	97		1		.75mg/Kg	07/29/99	VMA
cis-1,3-Dichloropropene	LCS	0.489	97.8	85-114			.5mg/Kg	07/29/99	VMA
	LCSD	0.483	96.6		1.2		.5mg/Kg	07/29/99	VMA
4-Methyl-2-pentanone (MIBK)	LCS	0.691	92.1	62-131			.75mg/Kg	07/29/99	VMA
	LCSD	0.68	90.6		1.6		.75mg/Kg	07/29/99	VMA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [249017] - Lab Check Standard Duplicate [249018] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Toluene	LCS	0.504	101	73-125			.5mg/Kg	07/29/99	VMA
	LCSD	0.497	99.4		1.6		.5mg/Kg	07/29/99	VMA
trans-1,3-Dichloropropene	LCS	0.5	100	83-116			.5mg/Kg	07/29/99	VMA
	LCSD	0.487	97.3		2.7		.5mg/Kg	07/29/99	VMA
1,1,2-Trichloroethane	LCS	0.484	96.7	87-121			.5mg/Kg	07/29/99	VMA
	LCSD	0.494	98.8		2.1		.5mg/Kg	07/29/99	VMA
Tetrachloroethene	LCS	0.508	102	71-139			.5mg/Kg	07/29/99	VMA
	LCSD	0.489	97.8		4.2		.5mg/Kg	07/29/99	VMA
1,3-Dichloropropane	LCS	0.477	95.3	84-121			.5mg/Kg	07/29/99	VMA
	LCSD	0.471	94.1		1.3		.5mg/Kg	07/29/99	VMA
2-Hexanone	LCS	0.676	90.1	64-130			.75mg/Kg	07/29/99	VMA
	LCSD	0.722	96.3		6.7		.75mg/Kg	07/29/99	VMA
Dibromochloromethane	LCS	0.51	102	71-136			.5mg/Kg	07/29/99	VMA
	LCSD	0.51	102		0		.5mg/Kg	07/29/99	VMA
1,2-Dibromoethane	LCS	0.515	103	82-129			.5mg/Kg	07/29/99	VMA
	LCSD	0.503	101		2		.5mg/Kg	07/29/99	VMA
Chlorobenzene	LCS	0.498	99.5	80-122			.5mg/Kg	07/29/99	VMA
	LCSD	0.485	96.9		2.6		.5mg/Kg	07/29/99	VMA
1,1,1,2-Tetrachloroethane	LCS	0.524	105	83-128			.5mg/Kg	07/29/99	VMA
	LCSD	0.52	104		.96		.5mg/Kg	07/29/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [249017] - Lab Check Standard Duplicate [249018] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Ethylbenzene	LCS	0.505	101	82-122			.5mg/Kg	07/29/99	VMA
	LCSD	0.496	99.1		1.9		.5mg/Kg	07/29/99	VMA
P & M -Xylene	LCS	0.999	99.9	83-120			1mg/Kg	07/29/99	VMA
	LCSD	1	100		.1		1mg/Kg	07/29/99	VMA
o-Xylene	LCS	0.494	98.7	82-120			.5mg/Kg	07/29/99	VMA
	LCSD	0.49	97.9		.81		.5mg/Kg	07/29/99	VMA
Styrene	LCS	0.518	104	82-124			.5mg/Kg	07/29/99	VMA
	LCSD	0.508	102		1.9		.5mg/Kg	07/29/99	VMA
Bromoform	LCS	0.534	107	73-127			.5mg/Kg	07/29/99	VMA
	LCSD	0.526	105		1.9		.5mg/Kg	07/29/99	VMA
Isopropylbenzene (Cumene)	LCS	0.485	97	78-130			.5mg/Kg	07/29/99	VMA
	LCSD	0.482	96.4		.62		.5mg/Kg	07/29/99	VMA
Bromobenzene	LCS	0.499	99.7	85-121			.5mg/Kg	07/29/99	VMA
	LCSD	0.505	101		1.3		.5mg/Kg	07/29/99	VMA
1,1,2,2-Tetrachloroethane	LCS	0.562	112	72-135			.5mg/Kg	07/29/99	VMA
	LCSD	0.537	107		4.6		.5mg/Kg	07/29/99	VMA
1,2,3-Trichloropropane	LCS	0.518	104	67-141			.5mg/Kg	07/29/99	VMA
	LCSD	0.506	101		2.9		.5mg/Kg	07/29/99	VMA
n-Propylbenzene	LCS	0.501	100	67-136			.5mg/Kg	07/29/99	VMA
	LCSD	0.494	98.7		1.3		.5mg/Kg	07/29/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [249017] - Lab Check Standard Duplicate [249018] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
2-Chlorotoluene	LCS	0.489	97.8	74-138			.5mg/Kg	07/29/99	VMA
	LCSD	0.482	96.3		1.5		.5mg/Kg	07/29/99	VMA
4-Chlorotoluene	LCS	0.47	94	71-137			.5mg/Kg	07/29/99	VMA
	LCSD	0.495	99		5.2		.5mg/Kg	07/29/99	VMA
1,3,5-Trimethylbenzene	LCS	0.507	101	75-132			.5mg/Kg	07/29/99	VMA
	LCSD	0.498	99.6		1.4		.5mg/Kg	07/29/99	VMA
tert-Butylbenzene	LCS	0.504	101	68-134			.5mg/Kg	07/29/99	VMA
	LCSD	0.498	99.6		1.4		.5mg/Kg	07/29/99	VMA
1,2,4-Trimethylbenzene	LCS	0.51	102	79-131			.5mg/Kg	07/29/99	VMA
	LCSD	0.513	103		.98		.5mg/Kg	07/29/99	VMA
sec-Butylbenzene	LCS	0.515	103	78-136			.5mg/Kg	07/29/99	VMA
	LCSD	0.509	102		.98		.5mg/Kg	07/29/99	VMA
1,3-Dichlorobenzene	LCS	0.487	97.4	78-126			.5mg/Kg	07/29/99	VMA
	LCSD	0.482	96.3		1.1		.5mg/Kg	07/29/99	VMA
4-Isopropyltoluene	LCS	0.505	101	70-133			.5mg/Kg	07/29/99	VMA
	LCSD	0.503	101		0		.5mg/Kg	07/29/99	VMA
1,4-Dichlorobenzene	LCS	0.446	89.1	77-132			.5mg/Kg	07/29/99	VMA
	LCSD	0.47	94		5.4		.5mg/Kg	07/29/99	VMA
1,2-Dichlorobenzene	LCS	0.515	103	93-122			.5mg/Kg	07/29/99	VMA
	LCSD	0.506	101		2		.5mg/Kg	07/29/99	VMA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	VXX 5414 (63497)		
Original		**Prep Date**	07/29/99 11:42
Matrix	Soil/Solid	**Analysis Method**	SW846-8260

QC results for Lab Check Standard [249017] - Lab Check Standard Duplicate [249018] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
n-Butylbenzene	LCS	0.54	108	81-141			.5mg/Kg	07/29/99	VMA
	LCSD	0.528	106		1.9		.5mg/Kg	07/29/99	VMA
1,2-Dibromo-3-chloropropane	LCS	0.563	113	60-144			.5mg/Kg	07/29/99	VMA
	LCSD	0.545	109		3.6		.5mg/Kg	07/29/99	VMA
1,2,4-Trichlorobenzene	LCS	0.567	113	86-129			.5mg/Kg	07/29/99	VMA
	LCSD	0.53	106		6.4		.5mg/Kg	07/29/99	VMA
Hexachlorobutadiene	LCS	0.568	114	80-152			.5mg/Kg	07/29/99	VMA
	LCSD	0.532	106		7.3		.5mg/Kg	07/29/99	VMA
Naphthalene	LCS	0.608	122	80-130			.5mg/Kg	07/29/99	VMA
	LCSD	0.57	114		6.8		.5mg/Kg	07/29/99	VMA
1,2,3-Trichlorobenzene	LCS	0.606	121	81-132			.5mg/Kg	07/29/99	VMA
	LCSD	0.563	113		6.8		.5mg/Kg	07/29/99	VMA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results affect the following production samples:

993745011	993745012	993745013	993745014	993745015
993745016	993745017	993745018		

QC results for Method Blank [250458]

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
N-Nitrosodimethylamine	08/04/99	0.058 U	0.058	mg/Kg
Pyridine	08/04/99	0.058 U	0.058	mg/Kg
Aniline	08/04/99	0.058 U	0.058	mg/Kg
Phenol	08/04/99	0.058 U	0.058	mg/Kg
Bis(2-Chloroethyl)ether	08/04/99	0.058 U	0.058	mg/Kg
2-Chlorophenol	08/04/99	0.058 U	0.058	mg/Kg
1,3-Dichlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
1,4-Dichlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
Benzyl alcohol	08/04/99	0.058 U	0.058	mg/Kg
1,2-Dichlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
2-Methylphenol (o-Cresol)	08/04/99	0.058 U	0.058	mg/Kg
bis(2-chloroisopropyl)ether	08/04/99	0.058 U	0.058	mg/Kg
3&4-Methylphenol (p&m-Cresol)	08/04/99	0.058 U	0.058	mg/Kg
N-Nitroso-di-n-propylamine	08/04/99	0.058 U	0.058	mg/Kg
Hexachloroethane	08/04/99	0.058 U	0.058	mg/Kg
Nitrobenzene	08/04/99	0.058 U	0.058	mg/Kg
Isophorone	08/04/99	0.058 U	0.058	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Method Blank [250458] (continued)

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
2-Nitrophenol	08/04/99	0.058 U	0.058	mg/Kg
2,4-Dimethylphenol	08/04/99	0.058 U	0.058	mg/Kg
Benzoic acid	08/04/99	0.29 U	0.29	mg/Kg
Bis(2-Chloroethoxy)methane	08/04/99	0.058 U	0.058	mg/Kg
1,2,4-Trichlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
Naphthalene	08/04/99	0.058 U	0.058	mg/Kg
4-Chloroaniline	08/04/99	0.11 U	0.11	mg/Kg
Hexachlorobutadiene	08/04/99	0.058 U	0.058	mg/Kg
4-Chloro-3-methylphenol	08/04/99	0.11 U	0.11	mg/Kg
2,4-Dichlorophenol	08/04/99	0.058 U	0.058	mg/Kg
2-Methylnaphthalene	08/04/99	0.058 U	0.058	mg/Kg
Hexachlorocyclopentadiene	08/04/99	0.058 U	0.058	mg/Kg
2,4,6-Trichlorophenol	08/04/99	0.058 U	0.058	mg/Kg
2,4,5-Trichlorophenol	08/04/99	0.058 U	0.058	mg/Kg
2-Chloronaphthalene	08/04/99	0.058 U	0.058	mg/Kg
2-Nitroaniline	08/04/99	0.29 U	0.29	mg/Kg
Dimethylphthalate	08/04/99	0.058 U	0.058	mg/Kg
Acenaphthylene	08/04/99	0.058 U	0.058	mg/Kg
2,6-Dinitrotoluene	08/04/99	0.058 U	0.058	mg/Kg
3-Nitroaniline	08/04/99	0.29 U	0.29	mg/Kg
Acenaphthene	08/04/99	0.058 U	0.058	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Method Blank [250458] (continued)

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
2,4-Dinitrophenol	08/04/99	0.29 U	0.29	mg/Kg
4-Nitrophenol	08/04/99	0.29 U	0.29	mg/Kg
Dibenzofuran	08/04/99	0.058 U	0.058	mg/Kg
2,4-Dinitrotoluene	08/04/99	0.058 U	0.058	mg/Kg
Diethylphthalate	08/04/99	0.058 U	0.058	mg/Kg
4-Chlorophenyl-phenylether	08/04/99	0.058 U	0.058	mg/Kg
Fluorene	08/04/99	0.058 U	0.058	mg/Kg
4-Nitroaniline	08/04/99	0.058 U	0.058	mg/Kg
2-Methyl-4,6-dinitrophenol	08/04/99	0.29 U	0.29	mg/Kg
N-Nitrosodiphenylamine	08/04/99	0.058 U	0.058	mg/Kg
4-Bromophenyl-phenylether	08/04/99	0.058 U	0.058	mg/Kg
Hexachlorobenzene	08/04/99	0.058 U	0.058	mg/Kg
Pentachlorophenol	08/04/99	0.29 U	0.29	mg/Kg
Phenanthrene	08/04/99	0.058 U	0.058	mg/Kg
Anthracene	08/04/99	0.058 U	0.058	mg/Kg
Di-n-butylphthalate	08/04/99	0.058 U	0.058	mg/Kg
Fluoranthene	08/04/99	0.058 U	0.058	mg/Kg
Pyrene	08/04/99	0.058 U	0.058	mg/Kg
Azobenzene	08/04/99	0.058 U	0.058	mg/Kg
Butylbenzylphthalate	08/04/99	0.058 U	0.058	mg/Kg
3,3-Dichlorobenzidine	08/04/99	0.11 U	0.11	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Method Blank [250458] (continued)

Run Instrument: HP 5890 Series II MS4 SVPA

Parameter	Analyzed	Result	PQL	Units
Benzo(a)Anthracene	08/04/99	0.058 U	0.058	mg/Kg
Chrysene	08/04/99	0.058 U	0.058	mg/Kg
bis(2-Ethylhexyl)phthalate	08/04/99	0.058 U	0.058	mg/Kg
di-n-Octylphthalate	08/04/99	0.058 U	0.058	mg/Kg
Benzo[b]Fluoranthene	08/04/99	0.058 U	0.058	mg/Kg
Benzo[k]fluoranthene	08/04/99	0.058 U	0.058	mg/Kg
Benzo[a]pyrene	08/04/99	0.058 U	0.058	mg/Kg
Indeno[1,2,3-c,d] pyrene	08/04/99	0.058 U	0.058	mg/Kg
Dibenzo[a,h]anthracene	08/04/99	0.058 U	0.058	mg/Kg
Benzo[g,h,i]perylene	08/04/99	0.058 U	0.058	mg/Kg

CT&E Environmental Services Inc.

Client Harding Lawson & Assoc
Workorder 47411 Red Devil Mine

QC Batch XXX 5811 (63795)
Original
Matrix Soil/Solid

Prep Date 08/02/99 09:30
Analysis Method SW846-8270

QC results affect the following production samples:

993745011 993745012 993745013 993745014 993745015
993745016 993745017 993745018

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
N-Nitrosodimethylamine	LCS	2.92	95.5	31-84			3.06mg/Kg	08/04/99	SPA
	LCSD	1.74	59.1		47.1	0-30	3.06mg/Kg	08/04/99	SPA
Pyridine	LCS	0.405	13.2	10-32			3.06mg/Kg	08/04/99	SPA
	LCSD	0.173	5.9		76.4	0-30	3.06mg/Kg	08/04/99	SPA
Aniline	LCS	6.14	201	16-66			3.06mg/Kg	08/04/99	SPA
	LCSD	3.07	104		63.6	0-30	3.06mg/Kg	08/04/99	SPA
Phenol	LCS	2.64	86.2	38-83			3.06mg/Kg	08/04/99	SPA
	LCSD	1.49	50.8		51.7	0-30	3.06mg/Kg	08/04/99	SPA
Bis(2-Chloroethyl)ether	LCS	2.98	97.5	33-84			3.06mg/Kg	08/04/99	SPA
	LCSD	1.75	59.5		48.4	0-30	3.06mg/Kg	08/04/99	SPA
2-Chlorophenol	LCS	2.15	70.3	34-85			3.06mg/Kg	08/04/99	SPA
	LCSD	1.26	43		48.2	0-30	3.06mg/Kg	08/04/99	SPA
1,3-Dichlorobenzene	LCS	1.87	61.1	33-83			3.06mg/Kg	08/04/99	SPA
	LCSD	1.09	37		49.1	0-30	3.06mg/Kg	08/04/99	SPA
1,4-Dichlorobenzene	LCS	2.04	66.8	32-87			3.06mg/Kg	08/04/99	SPA
	LCSD	1.19	40.4		49.3	0-30	3.06mg/Kg	08/04/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Benzyl alcohol	LCS	2.98	97.3	36-100			3.06mg/Kg	08/04/99	SPA
	LCSD	1.59	54		57.2	0-30	3.06mg/Kg	08/04/99	SPA
1,2-Dichlorobenzene	LCS	2.04	66.6	34-85			3.06mg/Kg	08/04/99	SPA
	LCSD	1.19	40.3		49.2	0-30	3.06mg/Kg	08/04/99	SPA
2-Methylphenol (o-Cresol)	LCS	2.61	85.4	39-91			3.06mg/Kg	08/04/99	SPA
	LCSD	1.48	50.5		51.4	0-30	3.06mg/Kg	08/04/99	SPA
bis(2-chloroisopropyl)ether	LCS	3.77	123	43-103			3.06mg/Kg	08/04/99	SPA
	LCSD	2.23	75.7		47.6	0-30	3.06mg/Kg	08/04/99	SPA
3&4-Methylphenol (p&m-Cresol)	LCS	3.93	91.7	44-101			4.28mg/Kg	08/04/99	SPA
	LCSD	2.21	53.7		52.3	0-30	4.28mg/Kg	08/04/99	SPA
N-Nitroso-di-n-propylamine	LCS	2.65	86.6	40-90			3.06mg/Kg	08/04/99	SPA
	LCSD	1.46	49.5		54.5	0-30	3.06mg/Kg	08/04/99	SPA
Hexachloroethane	LCS	2.06	67.3	32-87			3.06mg/Kg	08/04/99	SPA
	LCSD	1.22	41.6		47.2	0-30	3.06mg/Kg	08/04/99	SPA
Nitrobenzene	LCS	2.55	83.5	40-88			3.06mg/Kg	08/04/99	SPA
	LCSD	1.5	51		48.3	0-30	3.06mg/Kg	08/04/99	SPA
Isophorone	LCS	3.29	108	45-91			3.06mg/Kg	08/04/99	SPA
	LCSD	1.8	61.3		55.2	0-30	3.06mg/Kg	08/04/99	SPA
2-Nitrophenol	LCS	2.26	74	40-86			3.06mg/Kg	08/04/99	SPA
	LCSD	1.26	42.9		53.2	0-30	3.06mg/Kg	08/04/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
2,4-Dimethylphenol	LCS	2.89	94.5	42-88			3.06mg/Kg	08/04/99	SPA
	LCSD	1.61	54.6		53.5	0-30	3.06mg/Kg	08/04/99	SPA
Benzoic acid	LCS	2.43	56.8	12-58			4.28mg/Kg	08/04/99	SPA
	LCSD	1.48	36		44.8	0-30	4.28mg/Kg	08/04/99	SPA
Bis(2-Chloroethoxy)methane	LCS	2.75	89.8	41-92			3.06mg/Kg	08/04/99	SPA
	LCSD	1.54	52.4		52.6	0-30	3.06mg/Kg	08/04/99	SPA
1,2,4-Trichlorobenzene	LCS	2.01	65.8	35-89			3.06mg/Kg	08/04/99	SPA
	LCSD	1.13	38.5		52.3	0-30	3.06mg/Kg	08/04/99	SPA
Naphthalene	LCS	2.24	73.3	39-91			3.06mg/Kg	08/04/99	SPA
	LCSD	1.32	45.1		47.6	0-30	3.06mg/Kg	08/04/99	SPA
4-Chloroaniline	LCS	2.61	85.3	36-86			3.06mg/Kg	08/04/99	SPA
	LCSD	1.17	39.9		72.5	0-30	3.06mg/Kg	08/04/99	SPA
Hexachlorobutadiene	LCS	2.04	66.7	34-93			3.06mg/Kg	08/04/99	SPA
	LCSD	1.11	37.8		55.3	0-30	3.06mg/Kg	08/04/99	SPA
4-Chloro-3-methylphenol	LCS	3.02	98.7	50-92			3.06mg/Kg	08/04/99	SPA
	LCSD	1.66	56.4		54.5	0-30	3.06mg/Kg	08/04/99	SPA
2,4-Dichlorophenol	LCS	2.4	78.5	10-110			3.06mg/Kg	08/04/99	SPA
	LCSD	1.27	43.3		57.8	0-30	3.06mg/Kg	08/04/99	SPA
2-Methylnaphthalene	LCS	2.37	77.3	40-88			3.06mg/Kg	08/04/99	SPA
	LCSD	1.33	45.3		52.2	0-30	3.06mg/Kg	08/04/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Hexachlorocyclopentadiene	LCS	1.92	62.8	30-96			3.06mg/Kg	08/04/99	SPA
	LCSD	0.995	33.8		60	0-30	3.06mg/Kg	08/04/99	SPA
2,4,6-Trichlorophenol	LCS	2.92	95.4	47-98			3.06mg/Kg	08/04/99	SPA
	LCSD	1.61	54.8		54.1	0-30	3.06mg/Kg	08/04/99	SPA
2,4,5-Trichlorophenol	LCS	2.96	96.9	46-99			3.06mg/Kg	08/04/99	SPA
	LCSD	1.67	56.8		52.2	0-30	3.06mg/Kg	08/04/99	SPA
2-Chloronaphthalene	LCS	2.55	83.5	39-95			3.06mg/Kg	08/04/99	SPA
	LCSD	1.47	50		50.2	0-30	3.06mg/Kg	08/04/99	SPA
2-Nitroaniline	LCS	3.06	100	55-100			3.06mg/Kg	08/04/99	SPA
	LCSD	1.93	65.5		41.7	0-30	3.06mg/Kg	08/04/99	SPA
Dimethylphthalate	LCS	2.86	93.4	55-94			3.06mg/Kg	08/04/99	SPA
	LCSD	1.85	63.1		38.7	0-30	3.06mg/Kg	08/04/99	SPA
Acenaphthylene	LCS	2.76	90.2	50-96			3.06mg/Kg	08/04/99	SPA
	LCSD	1.66	56.5		45.9	0-30	3.06mg/Kg	08/04/99	SPA
2,6-Dinitrotoluene	LCS	2.94	96	58-102			3.06mg/Kg	08/04/99	SPA
	LCSD	1.88	64		40	0-30	3.06mg/Kg	08/04/99	SPA
3-Nitroaniline	LCS	2.9	94.8	56-103			3.06mg/Kg	08/04/99	SPA
	LCSD	1.89	64.4		38.2	0-30	3.06mg/Kg	08/04/99	SPA
Acenaphthene	LCS	2.74	89.5	49-97			3.06mg/Kg	08/04/99	SPA
	LCSD	1.6	54.4		48.8	0-30	3.06mg/Kg	08/04/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
2,4-Dinitrophenol	LCS	3.77	68.4	23-156			5.51mg/Kg	08/04/99	SPA
	LCSD	2.39	45.2		40.8	0-30	5.51mg/Kg	08/04/99	SPA
4-Nitrophenol	LCS	4.84	113	48-104			4.28mg/Kg	08/04/99	SPA
	LCSD	3.28	79.8		34.4	0-30	4.28mg/Kg	08/04/99	SPA
Dibenzofuran	LCS	2.81	92	51-97			3.06mg/Kg	08/04/99	SPA
	LCSD	1.71	58.2		45	0-30	3.06mg/Kg	08/04/99	SPA
2,4-Dinitrotoluene	LCS	2.87	93.7	62-101			3.06mg/Kg	08/04/99	SPA
	LCSD	1.96	66.6		33.8	0-30	3.06mg/Kg	08/04/99	SPA
Diethylphthalate	LCS	2.86	93.4	58-92			3.06mg/Kg	08/04/99	SPA
	LCSD	1.94	66		34.4	0-30	3.06mg/Kg	08/04/99	SPA
4-Chlorophenyl-phenylether	LCS	2.94	96.1	50-96			3.06mg/Kg	08/04/99	SPA
	LCSD	1.78	60.6		45.3	0-30	3.06mg/Kg	08/04/99	SPA
Fluorene	LCS	2.97	97.1	52-98			3.06mg/Kg	08/04/99	SPA
	LCSD	1.91	65		39.6	0-30	3.06mg/Kg	08/04/99	SPA
4-Nitroaniline	LCS	3.2	105	54-110			3.06mg/Kg	08/04/99	SPA
	LCSD	2.13	72.5		36.6	0-30	3.06mg/Kg	08/04/99	SPA
2-Methyl-4,6-dinitrophenol	LCS	4.99	90.6	68-110			5.51mg/Kg	08/04/99	SPA
	LCSD	3.16	59.7		41.1	0-30	5.51mg/Kg	08/04/99	SPA
N-Nitrosodiphenylamine	LCS	3.09	101	61-100			3.06mg/Kg	08/04/99	SPA
	LCSD	1.96	66.6		41.1	0-30	3.06mg/Kg	08/04/99	SPA

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
4-Bromophenyl-phenylether	LCS	2.62	85.6	49-88			3.06mg/Kg	08/04/99	SPA
	LCSD	1.64	55.9		42	0-30	3.06mg/Kg	08/04/99	SPA
Hexachlorobenzene	LCS	3.09	101	56-102			3.06mg/Kg	08/04/99	SPA
	LCSD	1.92	65.3		42.9	0-30	3.06mg/Kg	08/04/99	SPA
Pentachlorophenol	LCS	3.65	85.2	59-101			4.28mg/Kg	08/04/99	SPA
	LCSD	2.42	58.7		36.8	0-30	4.28mg/Kg	08/04/99	SPA
Phenanthrene	LCS	2.92	95.3	60-100			3.06mg/Kg	08/04/99	SPA
	LCSD	1.96	66.8		35.2	0-30	3.06mg/Kg	08/04/99	SPA
Anthracene	LCS	2.88	94	59-96			3.06mg/Kg	08/04/99	SPA
	LCSD	1.99	67.7		32.5	0-30	3.06mg/Kg	08/04/99	SPA
Di-n-butylphthalate	LCS	3.04	99.4	59-99			3.06mg/Kg	08/04/99	SPA
	LCSD	2.08	70.6		33.9	0-30	3.06mg/Kg	08/04/99	SPA
Fluoranthene	LCS	2.9	94.7	61-101			3.06mg/Kg	08/04/99	SPA
	LCSD	2.03	69		31.4	0-30	3.06mg/Kg	08/04/99	SPA
Pyrene	LCS	3.26	106	61-107			3.06mg/Kg	08/04/99	SPA
	LCSD	2.17	73.7		35.9	0-30	3.06mg/Kg	08/04/99	SPA
Azobenzene	LCS	3.62	118	48-99			3.06mg/Kg	08/04/99	SPA
	LCSD	2.41	81.8		36.2	0-30	3.06mg/Kg	08/04/99	SPA
Butylbenzylphthalate	LCS	3.56	116	63-110			3.06mg/Kg	08/04/99	SPA
	LCSD	2.36	80.2		36.5	0-30	3.06mg/Kg	08/04/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
3,3-Dichlorobenzidine	LCS	2.09	68.5	54-94			3.06mg/Kg	08/04/99	SPA
	LCSD	1.45	49.2		32.8	0-30	3.06mg/Kg	08/04/99	SPA
Benzo(a)Anthracene	LCS	2.98	97.3	63-103			3.06mg/Kg	08/04/99	SPA
	LCSD	2.11	71.6		30.4	0-30	3.06mg/Kg	08/04/99	SPA
Chrysene	LCS	3.03	99.2	65-103			3.06mg/Kg	08/04/99	SPA
	LCSD	2.17	73.7		29.5	0-30	3.06mg/Kg	08/04/99	SPA
bis(2-Ethylhexyl)phthalate	LCS	3.39	111	62-103			3.06mg/Kg	08/04/99	SPA
	LCSD	2.29	77.9		35	0-30	3.06mg/Kg	08/04/99	SPA
di-n-Octylphthalate	LCS	3.38	111	52-108			3.06mg/Kg	08/04/99	SPA
	LCSD	2	68.1		47.9	0-30	3.06mg/Kg	08/04/99	SPA
Benzo[b]Fluoranthene	LCS	3.04	99.5	57-105			3.06mg/Kg	08/04/99	SPA
	LCSD	2.02	68.8		36.5	0-30	3.06mg/Kg	08/04/99	SPA
Benzo[k]fluoranthene	LCS	3.45	113	54-109			3.06mg/Kg	08/04/99	SPA
	LCSD	2.21	75.1		40.3	0-30	3.06mg/Kg	08/04/99	SPA
Benzo[a]pyrene	LCS	2.96	96.9	61-99			3.06mg/Kg	08/04/99	SPA
	LCSD	2.07	70.3		31.8	0-30	3.06mg/Kg	08/04/99	SPA
Indeno[1,2,3-c,d] pyrene	LCS	2.39	78.1	35-147			3.06mg/Kg	08/04/99	SPA
	LCSD	1.72	58.3		29	0-30	3.06mg/Kg	08/04/99	SPA
Dibenzo[a,h]anthracene	LCS	2.4	78.5	43-135			3.06mg/Kg	08/04/99	SPA
	LCSD	1.7	57.9		30.2	0-30	3.06mg/Kg	08/04/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5811 (63795)		
Original		**Prep Date**	08/02/99 09:30
Matrix	Soil/Solid	**Analysis Method**	SW846-8270

QC results for Lab Check Standard [250459] - Lab Check Standard Duplicate [250460] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Benzo[g,h,i]perylene	LCS	2.36	77.1	31-151			3.06mg/Kg	08/04/99	SPA
	LCSD	1.66	56.4		31	0-30	3.06mg/Kg	08/04/99	SPA

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5812 (63796)			
Original		**Prep Date**	08/02/99 10:00	
Matrix	Soil/Solid	**Analysis Method**	SW846 8082	PCB's

QC results affect the following production samples:

993745011	993745012	993745013	993745014	993745015
993745016	993745017	993745018		

QC results for Method Blank [250467]

Run Instrument: HP 5890 Series II ECD SV H R

Parameter	Analyzed	Result	PQL	Units
Aroclor-1016	08/04/99	0.00300 U	0.00300	mg/Kg
Aroclor-1221	08/04/99	0.00300 U	0.00300	mg/Kg
Aroclor-1232	08/04/99	0.00300 U	0.00300	mg/Kg
Aroclor-1242	08/04/99	0.00300 U	0.00300	mg/Kg
Aroclor-1248	08/04/99	0.00300 U	0.00300	mg/Kg
Aroclor-1254	08/04/99	0.00300 U	0.00300	mg/Kg
Aroclor-1260	08/04/99	0.00300 U	0.00300	mg/Kg
alpha-BHC	08/08/99	0.000300 U	0.000300	mg/Kg
beta-BHC	08/08/99	0.000300 U	0.000300	mg/Kg
gamma-Chlordane	08/08/99	0.000300 U	0.000300	mg/Kg
alpha-Chlordane	08/08/99	0.000300 U	0.000300	mg/Kg
gamma-BHC (Lindane)	08/08/99	0.000300 U	0.000300	mg/Kg
delta-BHC	08/08/99	0.000300 U	0.000300	mg/Kg
Heptachlor	08/08/99	0.000300 U	0.000300	mg/Kg
Aldrin	08/08/99	0.000300 U	0.000300	mg/Kg
Heptachlor epoxide	08/08/99	0.000300 U	0.000300	mg/Kg
Endosulfan I	08/08/99	0.000300 U	0.000300	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5812 (63796)			
Original		**Prep Date**	08/02/99 10:00	
Matrix	Soil/Solid	**Analysis Method**	SW846 8082	PCB's

QC results for Method Blank [250467] (continued)

Run Instrument: HP 5890 Series II ECD SV H R

Parameter	Analyzed	Result	PQL	Units
4,4'-DDE	08/08/99	0.000300 U	0.000300	mg/Kg
Dieldrin	08/08/99	0.000300 U	0.000300	mg/Kg
Endrin	08/08/99	0.000300 U	0.000300	mg/Kg
Endosulfan II	08/08/99	0.000300 U	0.000300	mg/Kg
4,4'-DDD	08/08/99	0.000300 U	0.000300	mg/Kg
Endrin aldehyde	08/08/99	0.000300 U	0.000300	mg/Kg
4,4'-DDT	08/08/99	0.000300 U	0.000300	mg/Kg
Endosulfan sulfate	08/08/99	0.000300 U	0.000300	mg/Kg
Endrin ketone	08/08/99	0.000300 U	0.000300	mg/Kg
Methoxychlor	08/08/99	0.000300 U	0.000300	mg/Kg
Toxaphene	08/08/99	0.0300 U	0.0300	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5812 (63796)			
Original		**Prep Date**	08/02/99 10:00	
Matrix	Soil/Solid	**Analysis Method**	SW846-8081A	Pesticides

QC results affect the following production samples:

993745011	993745012	993745013	993745014	993745015
993745016	993745017	993745018		

QC results for Lab Check Standard [250468] - Lab Check Standard Duplicate [250469]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
alpha-BHC	LCS	0.00224	70	41-129			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00262	81		14.6	0-30	.00321mg/Kg	08/08/99	SJF
beta-BHC	LCS	0.00231	72	45-149			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00262	81		11.8	0-30	.00321mg/Kg	08/08/99	SJF
gamma-Chlordane	LCS	0.00189	59	47-133			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00239	74		22.6	0-30	.00321mg/Kg	08/08/99	SJF
alpha-Chlordane	LCS	0.00199	62	50-143			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00255	79		24.1	0-30	.00321mg/Kg	08/08/99	SJF
gamma-BHC (Lindane)	LCS	0.00215	67	45-137			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00259	80		17.7	0-30	.00321mg/Kg	08/08/99	SJF
delta-BHC	LCS	0.00205	64	46-146			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00246	76		17.1	0-30	.00321mg/Kg	08/08/99	SJF
Heptachlor	LCS	0.00234	73	48-134			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00278	86		16.4	0-30	.00321mg/Kg	08/08/99	SJF
Aldrin	LCS	0.00218	68	43-139			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00259	80		16.2	0-30	.00321mg/Kg	08/08/99	SJF

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	XXX 5812 (63796)		
Original		**Prep Date**	08/02/99 10:00
Matrix	Soil/Solid	**Analysis Method**	SW846-8081A Pesticides

QC results for Lab Check Standard [250468] - Lab Check Standard Duplicate [250469] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Heptachlor epoxide	LCS	0.00202	63	48-142			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00249	77		20	0-30	.00321mg/Kg	08/08/99	SJF
Endosulfan I	LCS	0.00215	67	47-135			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00262	81		18.9	0-30	.00321mg/Kg	08/08/99	SJF
4,4'-DDE	LCS	0.00196	61	47-140			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00255	79		25.7	0-30	.00321mg/Kg	08/08/99	SJF
Dieldrin	LCS	0.00192	60	47-135			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00249	77		24.8	0-30	.00321mg/Kg	08/08/99	SJF
Endrin	LCS	0.00212	66	58-147			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00259	80		19.2	0-30	.00321mg/Kg	08/08/99	SJF
Endosulfan II	LCS	0.00199	62	55-134			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00246	76		20.3	0-30	.00321mg/Kg	08/08/99	SJF
4,4'-DDD	LCS	0.00218	68	43-159			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00268	83		19.9	0-30	.00321mg/Kg	08/08/99	SJF
Endrin aldehyde	LCS	0.00154	48	39-141			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00181	56		15.4	0-30	.00321mg/Kg	08/08/99	SJF
4,4'-DDT	LCS	0.00199	62	50-139			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00249	77		21.6	0-30	.00321mg/Kg	08/08/99	SJF
Endosulfan sulfate	LCS	0.00234	73	51-160			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00262	81		10.4	0-30	.00321mg/Kg	08/08/99	SJF

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5812 (63796)			
Original		**Prep Date**	08/02/99 10:00	
Matrix	Soil/Solid	**Analysis Method**	SW846-8081A	Pesticides

QC results for Lab Check Standard [250468] - Lab Check Standard Duplicate [250469] (continued)

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Endrin ketone	LCS	0.00279	87	54-138			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00259	80		8.4	0-30	.00321mg/Kg	08/08/99	SJF
Methoxychlor	LCS	0.0026	81	53-159			.00321mg/Kg	08/08/99	SJF
	LCSD	0.00265	82		1.2	0-30	.00321mg/Kg	08/08/99	SJF

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc			
Workorder	47411 Red Devil Mine			
QC Batch	XXX 5812 (63796)			
Original		**Prep Date**	08/02/99 10:00	
Matrix	Soil/Solid	**Analysis Method**	SW846 8082	PCB's

QC results affect the following production samples:

993745011	993745012	993745013	993745014	993745015
993745016	993745017	993745018		

QC results for Lab Check Standard [250470] - Lab Check Standard Duplicate [250471]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aroclor-1016	LCS	0.0361	111	51-115			.0326mg/Kg	08/04/99	SHR
	LCSD	0.0304	94.1		16.5	0-30	.0326mg/Kg	08/04/99	SHR
Aroclor-1260	LCS	0.0265	81.5	51-115			.0326mg/Kg	08/04/99	SHR
	LCSD	0.0252	77.8		4.6	0-30	.0326mg/Kg	08/04/99	SHR

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6088 (63909)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993745001 993745002 993745003 993745004 993745005
993745006 993745007

QC results for Method Blank [251099]

Run Instrument: TJA Enviro II ICP P2

Parameter	Analyzed	Result	PQL	Units
Aluminum	08/05/99	5.00 U	5.00	mg/Kg
Barium	08/05/99	0.500 U	0.500	mg/Kg
Calcium	08/05/99	50.0 U	50.0	mg/Kg
Cobalt	08/05/99	0.500 U	0.500	mg/Kg
Copper	08/05/99	0.500 U	0.500	mg/Kg
Iron	08/05/99	2.50 U	2.50	mg/Kg
Potassium	08/05/99	225 U	225	mg/Kg
Magnesium	08/05/99	5.00 U	5.00	mg/Kg
Manganese	08/05/99	1.00 U	1.00	mg/Kg
Sodium	08/05/99	50.0 U	50.0	mg/Kg
Nickel	08/05/99	1.00 U	1.00	mg/Kg
Vanadium	08/05/99	0.500 U	0.500	mg/Kg
Zinc	08/05/99	1.00 U	1.00	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6088 (63909)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993745001 993745002 993745003 993745004 993745005
993745006 993745007

QC results for Lab Check Standard [251100]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aluminum	LCS	46.1	92.1	85-115			50mg/Kg	08/05/99	P2
Barium	LCS	48	95.9	85-115			50mg/Kg	08/05/99	P2
Calcium	LCS	452	90.5	85-115			500mg/Kg	08/05/99	P2
Cobalt	LCS	46.7	93.5	85-115			50mg/Kg	08/05/99	P2
Copper	LCS	46.3	92.6	85-115			50mg/Kg	08/05/99	P2
Iron	LCS	47.2	94.3	85-115			50.1mg/Kg	08/05/99	P2
Magnesium	LCS	437	87.5	85-115			500mg/Kg	08/05/99	P2
Manganese	LCS	46.3	92.6	85-115			50mg/Kg	08/05/99	P2
Nickel	LCS	46	91.9	85-115			50mg/Kg	08/05/99	P2
Potassium	LCS	375	75.1	85-115			500mg/Kg	08/05/99	P2
Sodium	LCS	459	91.9	85-115			500mg/Kg	08/05/99	P2
Vanadium	LCS	47.3	94.6	85-115			50mg/Kg	08/05/99	P2
Zinc	LCS	43.6	87.2	85-115			50mg/Kg	08/05/99	P2

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6089 (63910)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993745008	993745009	993745010	993745011	993745015
993745016	993745017	993745018		

QC results for Method Blank [251106]

Run Instrument: TJA Enviro II ICP P2

Parameter	Analyzed	Result	PQL	Units
Aluminum	08/05/99	5.00 U	5.00	mg/Kg
Barium	08/05/99	0.500 U	0.500	mg/Kg
Calcium	08/05/99	50.0 U	50.0	mg/Kg
Cobalt	08/05/99	0.500 U	0.500	mg/Kg
Copper	08/05/99	0.500 U	0.500	mg/Kg
Iron	08/05/99	2.50 U	2.50	mg/Kg
Potassium	08/06/99	225 U	225	mg/Kg
Magnesium	08/05/99	5.00 U	5.00	mg/Kg
Manganese	08/05/99	1.00 U	1.00	mg/Kg
Sodium	08/05/99	50.0 U	50.0	mg/Kg
Nickel	08/05/99	1.00 U	1.00	mg/Kg
Vanadium	08/05/99	0.500 U	0.500	mg/Kg
Zinc	08/05/99	1.00 U	1.00	mg/Kg

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6089 (63910)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846 6010B

QC results affect the following production samples:

993745008 993745009 993745010 993745011 993745015
993745016 993745017 993745018

QC results for Lab Check Standard [251107]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Aluminum	LCS	47.4	94.9	85-115			50mg/Kg	08/05/99	P2
Barium	LCS	49.1	98.2	85-115			50mg/Kg	08/05/99	P2
Calcium	LCS	472	94.4	85-115			500mg/Kg	08/05/99	P2
Cobalt	LCS	48.6	97.1	85-115			50mg/Kg	08/05/99	P2
Copper	LCS	47.7	95.3	85-115			50mg/Kg	08/05/99	P2
Iron	LCS	48.9	97.7	85-115			50.1mg/Kg	08/05/99	P2
Magnesium	LCS	449	89.7	85-115			500mg/Kg	08/05/99	P2
Manganese	LCS	47.5	95	85-115			50mg/Kg	08/05/99	P2
Nickel	LCS	47.2	94.4	85-115			50mg/Kg	08/05/99	P2
Sodium	LCS	467	93.4	85-115			500mg/Kg	08/05/99	P2
Vanadium	LCS	49	98	85-115			50mg/Kg	08/05/99	P2
Zinc	LCS	44.8	89.6	85-115			50mg/Kg	08/05/99	P2
Potassium	LCS	423	84.6	85-115			500mg/Kg	08/06/99	P2

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6090 (63914)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846-7041

QC results affect the following production samples:

993745001 993745002 993745003

QC results for Method Blank [251124]

Run Instrument: GFAA Perkin Elmer 4100

Parameter	Analyzed	Result	PQL	Units
Antimony	08/09/99	0.250 U	0.250	mg/Kg
Arsenic	08/10/99	0.250 U	0.250	mg/Kg
Beryllium	08/05/99	0.0250 U	0.0250	mg/Kg
Cadmium	08/05/99	0.0250 U	0.0250	mg/Kg
Chromium	08/10/99	0.250 U	0.250	mg/Kg
Lead	08/06/99	0.0800 J	0.250	mg/Kg
Selenium	08/11/99	0.250 U	0.250	mg/Kg
Silver	08/05/99	0.0165 J	0.0500	mg/Kg
Thallium	08/09/99	0.250 U	0.250	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6090 (63914)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846-7041

QC results affect the following production samples:

993745001 993745002 993745003

QC results for Lab Check Standard [251125]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Antimony	LCS	17.1	114				15mg/Kg	08/09/99	F4
Arsenic	LCS	14.7	98.3	85-115			15mg/Kg	08/10/99	F1
Beryllium	LCS	1.69	112				1.5mg/Kg	08/05/99	F2
Cadmium	LCS	1.6	107	85-115			1.5mg/Kg	08/05/99	F2
Chromium	LCS	30.7	102	85-115			30mg/Kg	08/10/99	F4
Lead	LCS	15	99.7	85-115			15mg/Kg	08/06/99	F4
Selenium	LCS	16.3	109	85-115			15mg/Kg	08/11/99	F1
Silver	LCS	2.82	113	85-115			2.5mg/Kg	08/05/99	F2
Thallium	LCS	7.85	105				7.5mg/Kg	08/09/99	F4

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6091 (63917)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846-7041

QC results affect the following production samples:

993745004	993745005	993745006	993745007	993745008
993745009	993745010	993745011	993745015	993745016
993745017	993745018			

QC results for Method Blank [251149]

Run Instrument: GFAA Perkin Elmer 4100

Parameter	Analyzed	Result	PQL	Units
Antimony	08/09/99	0.250 U	0.250	mg/Kg
Arsenic	08/10/99	0.250 U	0.250	mg/Kg
Beryllium	08/06/99	0.0250 U	0.0250	mg/Kg
Cadmium	08/05/99	0.0250 U	0.0250	mg/Kg
Chromium	08/10/99	0.250 U	0.250	mg/Kg
Lead	08/11/99	0.250 U	0.250	mg/Kg
Selenium	08/12/99	0.250 U	0.250	mg/Kg
Silver	08/05/99	0.0185 J	0.0500	mg/Kg
Thallium	08/09/99	0.250 U	0.250	mg/Kg

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6091 (63917)		
Original		**Prep Date**	08/04/99 14:20
Matrix	Soil/Solid	**Analysis Method**	SW846-7041

QC results affect the following production samples:

993745004	993745005	993745006	993745007	993745008
993745009	993745010	993745011	993745015	993745016
993745017	993745018			

QC results for Lab Check Standard [251150]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Antimony	LCS	15.4	103				15mg/Kg	08/09/99	F4
Arsenic	LCS	14.6	97.1	85-115			15mg/Kg	08/10/99	F1
Beryllium	LCS	1.52	101				1.5mg/Kg	08/05/99	F2
Cadmium	LCS	1.67	111	85-115			1.5mg/Kg	08/05/99	F2
Chromium	LCS	31.1	104	85-115			30mg/Kg	08/10/99	F4
Lead	LCS	15.3	102	85-115			15mg/Kg	08/11/99	F2
Selenium	LCS	13.5	90.2	85-115			15mg/Kg	08/12/99	F1
Silver	LCS	2.71	108	85-115			2.5mg/Kg	08/05/99	F2
Thallium	LCS	7.35	98				7.5mg/Kg	08/09/99	F4

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6142 (64592)		
Original		**Prep Date**	08/16/99 09:30
Matrix	Water (Surface, Eff., Ground)	**Analysis Method**	SW846-7471

QC results affect the following production samples:

993745001	993745002	993745003	993745004	993745005
993745006	993745007	993745008	993745009	993745010
993745011	993745015	993745016	993745017	993745018
993745019	993745020			

QC results for Method Blank [254793]

Run Instrument: HgAA Leeman AutoAnalyzer PS200

Parameter	Analyzed	Result	PQL	Units
Mercury by Cold Vapor	08/16/99	0.000200 U	0.000200	mg/L

F-701

CT&E Environmental Services Inc.

Client	Harding Lawson & Assoc		
Workorder	47411 Red Devil Mine		
QC Batch	MXX 6142 (64592)		
Original		Prep Date	08/16/99 09:30
Matrix	Water (Surface, Eff., Ground)	Analysis Method	SW846-7471

QC results affect the following production samples:

993745001	993745002	993745003	993745004	993745005
993745006	993745007	993745008	993745009	993745010
993745011	993745015	993745016	993745017	993745018
993745019	993745020			

QC results for Lab Check Standard [254794]

Parameter		QC Result	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analyzed	Instru ID
Mercury by Cold Vapor	LCS	0.00202	101				.002mg/L	08/16/99	F3

APPENDIX D

DATA QUALITY ASSESSMENT

APPENDIX D
DATA QUALITY ASSESSMENT

Harding Lawson Associates/Wilder Construction Company's (HLA/Wilder's) project chemist, Ms. Michelle T. Turner, performed a chemical data quality assessment of all project and quality control (QC) for the investigation. Analytical data was reviewed according to the *Chemical Quality Assurance for Hazardous, Toxic, and Radioactive Waste (HTRW) Projects*, U.S. Army Corps of Engineers EM-200-1-6, dated October 10, 1997. The data quality review included examination and review of sample holding times, temperatures, custody records, extraction QC samples, and reported results for project and QC samples. When appropriate, data qualifiers have been added to the result tables in the report. Specific data quality information is on the Data Quality Assessment checklists.

Samples were analyzed for target analyte list (TAL) metals, target compound list (TCL) volatile organic compounds (VOCs) by EPA Method 8260, TCL semivolatile organic compounds (SVOCs) by EPA Method 8270, TCL pesticides and polychlorinated biphenyls (PCBs) by EPA Methods 8081 and 8082, respectively, total lead by EPA Method 7421, total mercury by EPA Method 7471. Samples analyzed for VOCs were field-extracted by EPA Method 5035 medium-level. Seven surface-water samples, 12 sediment samples, 23 soil samples, and 2 volatile trip blanks were analyzed. QC samples and additional sample for matrix spike (MS)/MS Duplicate (MSD) were collected at a rate of 10 percent.

Samples were collected from July 16 to 23, 1999, and analyzed by Commercial Testing and Engineering – Environmental Services (CT&E), of Anchorage, Alaska.

Sample Receipt

Two sample coolers were received below the required temperature range of 4.0°C +/- 2.0°C. The samples were not frozen and sample results should not be affected.

Holding Times

Holding times for all samples were met.

TAL Metals

The analyte list for samples 99SLRDMT02, 99SLRDMD01, 99SLRDMD03, and 99SLRDMD04 does not include TAL compounds aluminum, iron, or sodium; the analyte list for samples 99SLRDMC01 AND 99SLRDMC02 does not include TAL compounds aluminum or iron. Method blanks (MBs) for all extraction sets were below the PQL for all analytes. For one metals extraction batch the MS and/or MSD recoveries for aluminum, antimony, beryllium, and silver are outside QC limits. Bench spike recoveries met criteria and results are not affected. MSD recovery for arsenic is biased high, but MS and laboratory control sample (LCS) recoveries are within QC criteria; results are not affected. LCS recovery for potassium was outside QC criteria. No MS/MSD were run. Samples 99SDRDMS04, 99SLRDMT01, 99SLRDMT02, 99SLRDMD01, 99SLRDMD03, 99SLRDMD04, 99SLRDMC01, and 99SLRDMC02 should be considered estimated for potassium.

TCL VOCs

The analyte list for samples 99SWRDME01, 99SWRDME02, 99SWRDME03, Trip blank (TB1) does not include TCL compounds acetone or 1,1-Dichloropropene; the analyte list for samples 99SLRDMD01, 99SLRDMD02, 99SLRDMA01, 99SLRDMA02, 99SLRDMA03, 99SLRDMD04, 99SLRDMC01, 99SLRDMC02, and 99SLRDMD05 does not include TCL compound acetone. Trip blanks which ac-

companied samples during transport were below the practical quantitation limit (PQL) for all analytes. The laboratory control sample duplicate (LCSD) recovery for chloroethane was outside QC limits for one extraction batch. LCS recovery and LCS/LCSD relative percent differences (RPDs) were within QC limits. Samples 99SLRDMD05 and trip blank (TB2) should be considered estimated for chloroethane. The MS/MSD recoveries for 2-Chloroethylvinylether were 0% for an extraction batch. Samples 99SWRDME01, 99SWRDME02, 99SWRDME03, trip blank (TB1) should be considered estimated for 2-Chloroethylvinylether. Field-extract surrogate 4-Bromofluorobenzene failed for 99SLRDMA02 due to matrix interference. All other surrogates met QC criteria and results are not affected.

TCL SVOCs

The continuing calibration verification (CCV) recovery for bis(2-Chloroisopropyl)ether is biased low and samples 99SWRDME01, 99SWDRME02, and 99SWDRME03 should be considered estimated for this compound. The CCV recovery for 2,4-Dinitrophenol is biased low and samples 99SLRDMD01, 99SLRDMD02, 99SLRDMA01,99SLRDMA02,99SLRDMD03,99SLRDM04, 99SLRDMC01, and 99SLRDMC02 should be considered estimated for this compound. CCV recovery for Benzo[g,h,i]perylene is outside QC limits and sample 99SLRDMD05 should be considered estimated for this compound. The LCS, LCSD recoveries and/or LCS/LCSD RPDs were outside QC criteria for many compounds. Where MS, MSD recoveries and MS/MSD RPDs met QC criteria for these compounds, results were not affected; if MS/MSDs did not meet QC criteria or were not run, these compounds should be considered estimated. The MS/MSD recoveries for Benzoic acid and 4-Nitrophenol were 0% for one extraction batch. Samples 99SWRDME01, 99SWDRME02, and 99SWDRME03 should be considered estimated for Benzoic acid and 4-Nitrophenol.

TCL Pesticides and PCBs

MBs for all extraction sets were below the PQL for all analytes. For one pesticide extraction batch the LCSD was outside QC criteria for Heptachlor and Aldrin and the MS was outside QC criteria for Endosulfan Sulfate. All other extraction QC met criteria, therefore results are not affected. The surrogate recovery for one surrogate was outside QC criteria in the extraction MS. The other surrogate is within QC criteria. Surrogate recoveries for samples 99SLRDMD01 and 99SLRDMD02 are outside acceptance criteria due to sample dilution. No pesticide analytical results are qualified.

Total Lead

Associated MBs, LCSs, and sample duplicates meet acceptance criteria. No total lead analytical results are qualified.

Total Mercury

Associated MBs, LCSs, and sample duplicates meet acceptance criteria. No total mercury analytical results are qualified.

Field Duplicates

Field duplicates agree for all analytes with the following exceptions:

- 99SWRDME02 and 99SWRDME03 has an RPD greater than 50% for iron (62%).
- 99SDRDME03 and 99SDRDME04 have RPDs greater than 50% for calcium (68%) and magnesium (54%).

- 99SDRDMS01 and 99SDRDMS02 have RPDs greater than 50% for antimony (99%), lead (67%), mercury (86%), and selenium (57%).
- 99SLRDMD01 and 99SLRDMD02 has an RPD greater than 50% for naphthalene (77%).

High RPDs between field duplicates may be due to non-homogeneity of the samples.

Summary of Chemical Data Quality

Problems which affect the acceptability of analytical data include incomplete analyte lists, poor CCV recoveries, poor LCS/LCSD and MS/MSD recoveries, and poor surrogate recoveries. All data which are affected are noted above and flagged in the sample results tables. Except where noted above, the quality of analytical data is good and may be accepted without qualification.

DATA QUALITY ASSESSMENT (Note: Any "No" answer requires a comment)

Project: Red Devil Mine 47411
Laboratory Batch No.: CTE 99.3500

	Yes	No	Not Required
1. Were samples received in good condition?	X		
2. Were samples analyzed for requested parameters?		X	
3. Is the Data Deliverables package complete?	X		
4. Were samples extracted/analyzed within holding time acceptance criteria?	X		
5. For soils, were sample results reported on a "dry weight" basis?	X		
6. For volatiles, were trip blank analytes all reported as ND?	X		
7. Were calibration and CCV/LS criteria met?		X	
8. Were instrument blanks reported as ND?			X
9. Were method blanks reported as ND?	X		
10. Are the LCS/LCSDs within acceptance criteria?		X	
11. Are the MS/MSDs within acceptance criteria?		X	
12. Are the LCS/LCSD relative percent differences within acceptance criteria?		X	
13. Are the MS/MSD relative percent differences within acceptance criteria?		X	
14. Are the sample duplicate relative percent differences within acceptance criteria?	X		
15. Are the surrogate percent recoveries within acceptance criteria?	X		
16. Are the field duplicate relative percent differences less than 50 percent?		X	

Comments:

- Analytical data was reviewed according to the Chemical Quality Assurance for Hazardous, Toxic, and Radioactive Waste (HTRW) Projects, USACE EM-200-1-6, 10 October, 1997.
- All data may be accepted without qualification except as noted below.
- VOCs analyte list report did not include Acetone or 1,1-dichloropropene.
- SVOCs CCV recovery for bis(2-chloroisopropyl)ether is biased low; all samples are estimated for this compound.
- SVOCs LCS recovery for Aniline and LCS/LCSD RPD were outside quality control limits. LCSD and MS/MSD met criteria; results were not affected. LCS/LCSD RPDs for N-Nitrosodimethylamine, Pyridine, Phenol, Bis(2-chloroethyl)ether, 2-Chloropehnol, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Benzyl alcohol, 1,2-Dichlorobenzene, 2-Methylphenol, bis(2-chloroisopropyl)ether, 3&4-Methylphenol, Hexachloroethane, Nitrobenzene, 2-Nitrophenol, Benzoic acid, Bis(2-chloroethoxy)methane, 1,2,4-Trichlorobenzene, Naphthalene, Hexachlorobutadiene, 2,4-Dichlorophenol, 2-Methylnaphthalene, and Hexachlorocyclopentadiene were outside quality control limits. MS/MSD recoveries and RPDs met criteria; sample results are not affected.
- Pesticide LCSD recovery for Heptachlor and Aldrin, and the LCS/LCSD RPD were outside quality control limits. LCSD and MS/MSD met criteria; results should not be affected.
- VOC MS/MSD recoveries for 2-chloroethylvinylether were 0%. LCS/LCSD recoveries are within quality control limits; results for these compounds should be considered estimated.
- SVOC MS/MSD recoveries for benzoic acid and 4-Nitrophenol were 0%. LCS/LCSD recoveries are within quality control limits; results for these compounds should be considered estimated.

Reviewer: Michelle T. Turner **Date:** 10/21/99

DATA QUALITY ASSESSMENT (Note: Any "No" answer requires a comment)

Project: Red Devil Mine 47411

LABORATORY BATCH NO.: CTE 99.3500

- Pesticide MS recovery for Endosulfan sulfate was outside quality control limits, biased high (167%). MSD recovery was within quality control limits. Results are not affected.
- Metals MSD recovery for Arsenic is biased high (117%); MS and LCS recoveries are within quality control criteria. Results are not affected.
- Metals MS and/or MSD recoveries for Aluminum, Antimony, Beryllium, Selenium, and Silver are outside quality control limits. Bench spike recoveries met criteria, and results are not affected.
- Pesticide surrogate recovery of Tetrachloro-m-xylene is outside quality control limits for MS. The other surrogate is within quality control limits and results should not be affected.
- Field sample duplicates 99SWRDME02 & 99SWRDME03 (99.3500-12 & 99.3500-13) have an RPD greater than 50% for Iron (62%). Iron results for these two samples should be considered estimated.
- Field sample duplicates 99SDRDME03 & 99SDRDME04 (99.3500-06 & 99.3500-07) have an RPD greater than 50% for Calcium (68%) and Magnesium (54%). Calcium and Magnesium results for these two samples should be considered estimated.
- Field sample duplicates 99SLRDMB01 & 99SLRDMB02 (99.3500-09 & 99.3500-10) have an RPD less than 50% for all compounds.

Reviewer: Michelle T. Turner **Date:** 10/21/99

DATA QUALITY ASSESSMENT (Note: Any "No" answer requires a comment)

Project: Red Devil Mine 47411
Laboratory Batch No.: CTE 99.3745

	Yes	No	Not Required
1. Were samples received in good condition?		X	
2. Were samples analyzed for requested parameters?		X	
3. Is the ADEC Data Deliverables package complete?	X		
4. Were samples extracted/analyzed within holding time acceptance criteria?	X		
5. For soils, were sample results reported on a "dry weight" basis?	X		
6. For volatiles, were trip blank analytes all reported as ND?			X
7. Were calibration and CCV/LS criteria met?		X	
8. Were instrument blanks reported as ND?			X
9. Were method blanks reported as ND?	X		
10. Are the LCS/LCSDs within acceptance criteria?		X	
11. Are the MS/MSDs within acceptance criteria?			X
12. Are the LCS/LCSD relative percent differences within acceptance criteria?		X	
13. Are the MS/MSD relative percent differences within acceptance criteria?			X
14. Are the sample duplicate relative percent differences within acceptance criteria?	X		
15. Are the surrogate percent recoveries within acceptance criteria?		X	
16. Are the field duplicate relative percent differences less than 50 percent?		X	

Comments:

- Analytical data was reviewed according to the Chemical Quality Assurance for Hazardous, Toxic, and Radioactive Waste (HTRW) Projects, USACE EM-200-1-6, 10 October, 1997.
- All data may be accepted without qualification except as noted below.
- Samples were received at a cooler temperature of 0.6°C, outside the required temperature range of 4.0°C +/-2.0°C. Samples were not frozen and results are not affected.
- TAL metals Aluminum, Iron, and Sodium results are missing from 99SLRDMT02, 99SLRDMD01, 99SLRDMD03, and 99SLRDMD04, (99.3745-10, 99.3745-11, 99.3745-15, and 99.3745-16). TAL metals Aluminum and Iron results are missing from 99SLRDMC01 and 99SLRDMC02 (99.3745-17 and 99.3745-18).
- VOC results are missing Acetone from 99SLRDMD01, 99SLRDMD02, 99SLRDMA01, 99SLRDMA02, 99SLRDMD03, 99SLRDMD04, 99SLRDMC01, 99SLRDMC02 (99.3745-11 through 99.3745-18).
- SVOC CCV recovery for 2,4-Dinitrophenol is biased low. Samples 99SLRDMD01, 99SLRDMD02, 99SLRDMA01, 99SLRDMA02, 99SLRDMD03, 99SLRDM04, 99SLRDMC01, and 99SLRDMC02 (99.3745-11 – 99.3745-18) should be considered estimated for this compound.

Reviewer: Michelle T. Turner **Date:** 10/22/99

DATA QUALITY ASSESSMENT (Note: Any "No" answer requires a comment)

Project: Red Devil Mine 47411

LABORATORY BATCH NO.: CTE 99.3745

- SVOC LCS or LCSD recoveries and RPDs for N-Nitrosodimethylamine; Pyridine; Phenol; Bis(2-chloroethyl)ether; Bis(2-chloroisopropyl)ether; Isophorone; 2,4-Dimethylphenol; 4-Chloro-3-methylphenol; 4-Nitrophenol; Diethylphthalate; 4-Chlorophenyl-phenylether; N-Nitrosodiphenylamine; Di-n-butylphthalate; Azobenzene; Butylbenzylphthalate; 3,3-Dichlorobenzidine; Bis(2-ethylhexyl)phthalate; di-n-octylphthalate; and Benzo[k]Fluoranthene were outside quality control limits. LCS/LCSD recoveries and RPDs for Aniline were outside quality control limits. LCS/LCSD RPDs were outside quality control limits for 2-Chlorophenol; 1,3-Dichlorobenzene; 1,4-Dichlorobenzene; Benzyl alcohol; 1,2-Dichlorobenzene; 2-Methylphenol; 3&4-Methylphenol; N-Nitroso-di-n-propylamine; Hexachloroethane; Nitrobenzene; 2-Nitrophenol; Benzoic acid; Bis(2-chloroethoxy)methane; 1,2,4-Trichlorobenzene; Naphthalene; 4-Chloroaniline; Hexachlorobutadiene; 2,4-Dichlorophenol; 2-Methylnaphthalene; Hexachlorocyclopentadiene; 2,4,6-Trichlorphenol; 2,4,5-Trichlorophenol; 2-Chloronaphthalene; 2-Nitroaniline; Dimethylphthalate; Acenaphthylene; 2,6-Dinitrotoluene; 3-Nitroaniline; Acenaphthene; 2,4-Dinitrophenol; Dibenzofuran; 2,4-Dinitrotoluene; Fluorene; 4-Nitroaniline; 2-Methyl-4,6-dinitrophenol; 4-Bromophenyl-phenylether; Hexachlorobenzene; Pentachlorophenol; Phenanthrene; Anthracene; Fluoranthene; Pyrene; Benzo[a]Anthracene; Benzo[b]Fluoranthene; Benzo[a]pyrene; Dibenzo[a,h]anthracene; and Benzo[g,h,i]perylene. All compounds listed above should be considered estimated for samples 99SLRDMD01, 99SLRDMD02, 99SLRDMA01, 99SLRDMA02, 99SLRDMD03, 99SLRDM04, 99SLRDMC01, and 99SLRDMC02 (99.3745-11 – 99.3745-18).
- Metals LCS recovery for Potassium was outside quality control limits. No MS/MSD were run. Samples 99SDRDMS04, 99SLRDMT01, 99SLRDMT02, 99SLRDMD01, 99SLRDMD03, 99SLRDMD04, 99SLRDMC01, 99SLRDMC02 (99.3745-08 – 99.3745-11 and 99.3745-15 – 99.3745-18) should be considered estimated.
- VOC field extract surrogate 4-Bromoflurobenzene failed for 99SLRDMA02 (99.3745-14) due to sample matrix. All other surrogates met quality control criteria and results are not affected.
- SVOC surrogate Terphenyl-d14 failed for 99SLRDMD04 (99.3745-16). All other surrogates met quality control criteria and results are not affected.
- Pesticide surrogates failed for 99SLRDMD01, 99SLRDMD02, (99.3745-11 and 99.3745-12) due to sample dilution. Results are not affected.
- Field sample duplicates 99SDRDMS01 & 99SDRDMS02 (99.3745-05 & 99.3745-06) have an RPD greater than 50% for Antimony (99%), Lead (67%), Mercury (86%), and Selenium (57%). Results for these compounds should be considered estimated.
- Field sample duplicates 99SLRDMD01 & 99SLRDMD02 (99.3745-11 & 99.3745-12) have an RPD greater than 50% for Naphthalene (77%). Naphthalene results for 99SLRDMD01 and 99SLRDMD02 should be considered estimated.

Reviewer: Michelle T. Turner **Date:** 10/22//99

DATA QUALITY ASSESSMENT (Note: Any "No" answer requires a comment)

Project: Red Devil Mine 47411
Laboratory Batch No.: CTE 99.3746

	Yes	No	Not Required
1. Were samples received in good condition?		X	
2. Were samples analyzed for requested parameters?		X	
3. Is the ADEC Data Deliverables package complete?			
4. Were samples extracted/analyzed within holding time acceptance criteria?	X		
5. For soils, were sample results reported on a "dry weight" basis?	X		
6. For volatiles, were trip blank analytes all reported as ND?	X		
7. Were calibration and CCV/LS criteria met?		X	
8. Were instrument blanks reported as ND?			X
9. Were method blanks reported as ND?	X		
10. Are the LCS/LCSDs within acceptance criteria?		X	
11. Are the MS/MSDs within acceptance criteria?		X	
12. Are the LCS/LCSD relative percent differences within acceptance criteria?	X		
13. Are the MS/MSD relative percent differences within acceptance criteria?		X	
14. Are the sample duplicate relative percent differences within acceptance criteria?	X		
15. Are the surrogate percent recoveries within acceptance criteria?	X		
16. Are the field duplicate relative percent differences less than 50 percent?		X	

Comments:

- Analytical data was reviewed according to the Chemical Quality Assurance for Hazardous, Toxic, and Radioactive Waste (HTRW) Projects, USACE EM-200-1-6, 10 October, 1997.
- All data may be accepted without qualification except as noted below.
- Samples were received at a cooler temperature of 1.5°C, outside the required temperature range of 4.0°C +/-2.0°C. Samples were not frozen and results are not affected.
- VOC results are missing Acetone from 99SLRDMD05 (99.3746-04).
- SVOC CCV recovery for Benzo[g,h,i]perylene are outside quality control limits. Results for sample 99SLRDMD05 (99.3746-04) should be considered estimated.
- VOC LCSD recovery is outside quality control limits for Chloroethane. LCS recovery and LCS/LCSD RPD is within quality control limits. Results for Chloroethane for samples 99SLRDMD05 and Trip blank (TB2) should be considered estimated.

Reviewer: Michelle T. Turner **Date:** 10/25/99

DATA QUALITY ASSESSMENT (Note: Any "No" answer requires a comment)

Project: Red Devil Mine 47411
Laboratory Batch No.: CTE 99.3746

- SVOC LCS or LCSD recoveries and RPDs for N-Nitrosodimethylamine; Pyridine; Phenol; Bis(2-chloroethyl)ether; Bis(2-chloroisopropyl)ether; Isophorone; 2,4-Dimethylphenol; 4-Chloro-3-methylphenol; 4-Nitrophenol; Diethylphthalate; 4-Chlorophenyl-phenylether; N-Nitrosodiphenylamine; Di-n-butylphthalate; Azobenzene; Butylbenzylphthalate; 3,3-Dichlorobenzidine; Bis(2-ethylhexyl)phthalate; di-n-octylphthalate; and Benzo[k]Fluoranthene were outside quality control limits. LCS/LCSD recoveries and RPDs for Aniline were outside quality control limits. LCS/LCSD RPDs were outside quality control limits for 2-Chlorophenol; 1,3-Dichlorobenzene; 1,4-Dichlorobenzene; Benzyl alcohol; 1,2-Dichlorobenzene; 2-Methylphenol; 3&4-Methylphenol; n-Nitrosodi-n-propylamine; Hexachloroethane; Nitrobenzene; 2-Nitrophenol; Benzoic acid; Bis(2-chloroethoxy)methane; 1,2,4-Trichlorobenzene; Naphthalene; 4-Chloroaniline; Hexachlorobutadiene; 2,4-Dichlorophenol; 2-Methylnaphthalene; Hexachlorocyclopentadiene; 2,4,6-Trichlorphenol; 2,4,5-Trichlorophenol; 2-Chloronaphthalene; 2-Nitroaniline; Dimethylphthalate; Acenaphthylene; 2,6-Dinitrotoluene; 3-Nitroaniline; Acenaphthene; 2,4-Dinitrophenol; Dibenzofuran; 2,4-Dinitrotoluene; Fluorene; 4-Nitroaniline; 2-Methyl-4,6-dinitrophenol; 4-Bromophenyl-phenylether; Hexachlorobenzene; Pentachlorophenol; Phenanthrene; Anthracene; Fluoranthene; Pyrene; Benzo[a]Anthracene; Benzo[b]Fluoranthene; Benzo[a]pyrene; Dibenzo[a,h]anthracene; and Benzo[g,h,i]perylene. All compounds listed above should be considered estimated for sample 99SLRDMD05 (99.3746-04).
- Field sample duplicates 99SLRDMR07 & 99SLRDMR082 (99.3746-01 & 99.3746-02) have an RPD greater than 50% for Mercury (74%). Mercury results for 99SLRDMR07 and 99SLRDMR082 should be considered estimated.

Reviewer: Michelle T. Turner **Date:** 10/25/99

DISTRIBUTION

Limited Waste Removal Action Report
Red Devil Mine
Red Devil, Alaska

November 19, 1999

1 Copy:	Mr. Wayne Svejnoha Department of the Interior Bureau of Land Management Alaska State Office 222 West Seventh Avenue, #13 Anchorage, Alaska 99513-7599
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Quality Control Reviewer

Paul C. Ramert, P.E.
Civil Engineer - 8489

DGR
TE/jr/W0801R