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NSB NEW LONDON
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# Site Characterization Report

for

# Waste Oil Tank 5

for

Naval Submarine Base - New London
Groton, Connecticut

**Northern Division**
**Naval Facilities Engineering Command**
**Contract Number N62472-90-D-1298**
**Contract Task Order 0129**

May 1994

Halliburton NUS
CORPORATION

R-04-94-21

# SITE CHARACTERIZATION REPORT
# FOR
# WASTE OIL TANK 5
# FOR
# NAVAL SUBMARINE BASE - NEW LONDON
# GROTON, CONNECTICUT

**COMPREHENSIVE LONG-TERM**
**ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT**

**Submitted to:**
**Northern Division**
**Environmental Branch, Code 18**
**Naval Facilities Engineering Command**
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**Lester, Pennsylvania 19113-2090**

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**CONTRACT TASK ORDER 0129**

**MAY 1994**


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# 1.0 INTRODUCTION

## 1.1 AUTHORIZATION

The Northern Division of the Naval Facilities Engineering Command (NAVFAC) issued Contract Task Order (CTO) 0129, under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract No. N62477-90-D-1298 to Halliburton NUS Corporation (Halliburton NUS). The CTO is an assignment to perform remedial investigation activities at Naval Submarine Base, New London, located in Groton, Connecticut.

A Scope Change Letter dated November 24, 1993 directed Halliburton NUS to perform investigation activities at Waste Oil Tank 5. Halliburton NUS responded to the Scope Change Letter by preparing a Cost Impact Letter, which was dated December 9, 1993 and submitted to the Navy on December 10, 1993. The scope of work was negotiated on December 29, 1993 and a Confirmation of Negotiation Letter was submitted to the Navy on December 30, 1993.

A second Scope Change Letter, dated January 11, 1994, directed Halliburton NUS to modify the scope of work to eliminate concrete chip sampling since the tank had filled with water. A Cost Impact Letter was completed on February 3, 1994 and submitted to the Navy on February 4, 1994. Negotiations were conducted on February 16, 1994, and a Confirmation of Negotiation Letter was submitted to the Navy on February 17, 1994.

A work plan was developed which detailed the proposed investigation activities at Waste Oil Tank 5. The final version of the work plan was submitted to the Navy on February 17, 1994. The field work was conducted from February 19, to March 2, 1994. The details of that field effort are included in this report.

This section is the introduction to the report and includes a discussion of the scope and objectives in addition to a description and history of the tank. Section 2 contains a detailed description of the field activities that were conducted and Section 3 provides a discussion of the investigation results.

## 1.2 SCOPE AND OBJECTIVES

The primary objectives of the field investigation were to collect the necessary data to determine the environmental impact that Waste Oil Tank 5 has had on the surrounding media and to collect the necessary data to adequately abandon or remove the tank. Specific objectives of the project were as follows:

- To determine the magnitude and extent of potential polychlorinated biphenyl (PCB) and petroleum-related contamination that has permeated the concrete tank.

- To determine if soil or groundwater contamination exists beneath the tank resulting from leaks within the tank bottom.

## 1.3 TANK DESCRIPTION AND HISTORY

Waste Oil Tank 5 is located in the southern portion of Submarine Base, New London, immediately north of Crystal Lake Road and between Sculpin Avenue and Tang Avenue. The cylindrical reinforced concrete tank is reported to be approximately 112 feet in diameter and 11 feet deep. A concrete slab covers the tank and is supported by 37 concrete columns spaced 16 feet on center. The calculated capacity of the tank is approximately 810,000 gallons[1] not accounting for the volume occupied by the columns (see calculation below). The top of the tank is approximately 5 feet beneath the ground surface and the base of the tank is approximately 17 feet beneath the ground surface. The top and bottom of the tank are both approximately 1 foot thick.

The tank was constructed in the 1940s and was initially used for fuel oil storage. Ten to fifteen years ago, the tank was converted for waste storage, predominantly bilge water. The tank was placed out of service and the contents, including floating product, sludge, and water, were removed in mid-1993. One to two inches of sludge remains on the tank floor with a small amount of concrete rubble under the tank opening. The sludge and rubble could not be removed as a result of the rapidly rising water level in the tank when the contents were removed, which indicates that the tank integrity was compromised. Most of the soil cover which was originally on the tank top has also been removed. The tank bottom occasionally fills with water which has been pumped out by contractors during attempts to clean and close the tank. At the current time, the tank is completely filled with water.

---

[1] $56^2 \times 3.14 \times 11 \times 7.48 = 810{,}214$ gallons

Investigations conducted to date have included partial demolition of the pumphouse, soil cover removal, waste removal from within the tank, and sampling of the waste and surrounding media from around the tank. Several investigations were conducted by GZA Geoenvironmental, Inc., and the results are included in the work plan for reference purposes.

# 2.0 FIELD ACTIVITIES METHODOLOGY

A discussion of the field activities is included in this section. Sample locations are shown in Figure 2-1. Sample logsheets and chain-of-custody forms are provided in Appendix A. Boring Logs and Well Construction Forms are included in Appendix B.

## 2.1 TANK WATER SAMPLING

Two samples of the water in the tank (OT-TW01 and OT-TW02) were collected and analyzed for Target Compound List/Target Analyte List (TCL/TAL) parameters to determine treatment and disposal requirements. The water samples were collected and composited over the entire length of the water column using a Kemmerer Sampler. Measurements of pH, specific conductance, oxidation reduction potential (ORP), dissolved oxygen (DO), turbidity, and temperature were completed in the field and noted on the sample logsheets. The samples were preserved as required by the associated analytical methods, placed into coolers and chilled with ice, and shipped to the laboratory for analyses.

## 2.2 SOIL BORINGS AND CONCRETE SAMPLING

A total of four soil borings (OT-MW01 through OT-MW04) were drilled through the tank with 6-inch inside diameter hollow-stem augers. Split-barrel samples were collected continuously until the tank top was encountered. Split-barrel samples in each boring were obtained in accordance with ASTM D-1586.

One soil sample from each boring of the soil cover above the tank was sent to the laboratory for TCL/TAL analyses to determine if soils were impacted during tank filling activities. Samples for analysis were selected in the field based on visual observations, noticeable odors or monitoring instrument readings.

The concrete tank top was cored with a 6-inch inside diameter diamond core bit. Originally, it was intended to send one core of the top of the tank from each boring to the laboratory for TCL PCB analysis and Toxicity Characteristic Leaching Procedure (TCLP) extraction and analysis (volatiles, semivolatiles, herbicides, pesticides, and metals). However, only one core (from boring OT-MW04) from the tank top was recovered in four attempts. Three cores were lost on the tank bottom as the core bit penetrated the concrete.

Upon completion of coring the tank at each location, a 4.5-inch inside diameter steel casing with a diamond-bit drive shoe was inserted through the top of the tank and spun into the concrete tank bottom

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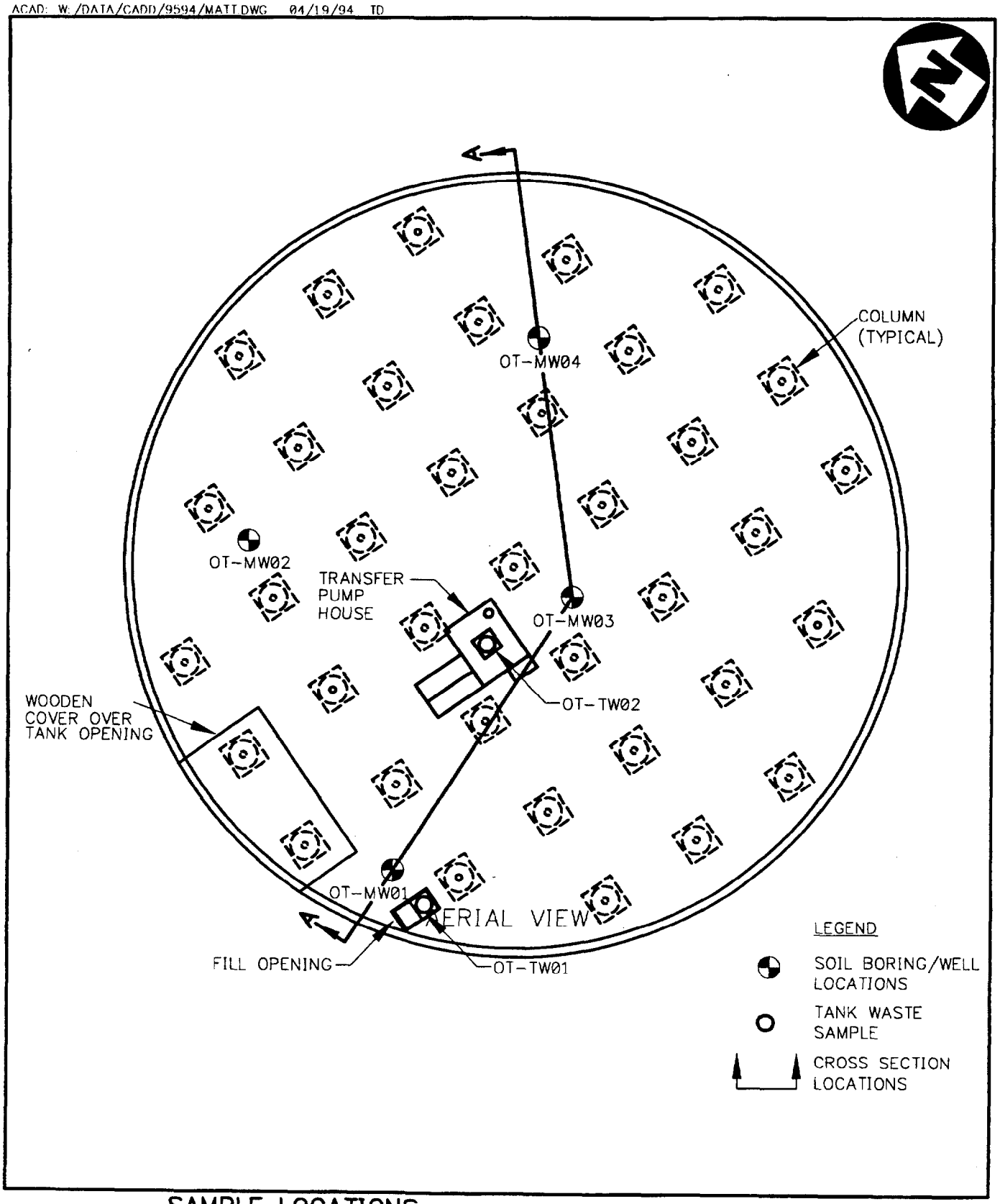


SAMPLE LOCATIONS
WASTE OIL TANK NO. 5
SUBASE, NEW LONDON, CT

0 20 40
SCALE IN FEET

FIGURE 2-1

HALLIBURTON NUS
Environmental Corporation

R-04-94-21

a distance of approximately 6 inches. The casing was pulled out of the borehole slightly (approximately 1 inch) and pressure grouted into place. The grout was allowed to cure for 24 hours before resuming drilling. After the grout had cured, water remaining within the casing was evacuated using a centrifugal pump. Potable water was pumped into the casing and the water level was monitored for changes to determine the integrity of the seal at the casing/concrete interface. OT-MW04 was the only boring location with signs of casing leakage. The casing was regrouted and subsequently passed the leakage test.

Grout plugs within the casings were reamed out of the 4.5-inch-diameter steel casing. A 3-inch-diameter core barrel was then used to penetrate the tank bottom. The concrete cores recovered from the base of the tank from each boring were split in half horizontally and sent to the laboratory for TCLP and PCB analyses.

The soil beneath the tank at each boring location was sampled using split-spoon sampling techniques continuously to the total depth of each boring. As a result of formation collapse beneath the concrete tank floor, it was necessary to drive and wash a temporary 3-inch inside diameter steel casing through the center of the 4.5-inch-diameter steel casing and into the soils underlying the tank bottom to minimize boring collapse during soil sampling. Two soil samples from each boring beneath the concrete were sent to the laboratory and analyzed for TCL/TAL parameters to establish a vertical profile of soil contamination. Each boring was advanced a distance of 5 to 6 feet below the tank bottom (23 feet total).

## 2.3 TEMPORARY MONITORING WELL INSTALLATION

Temporary monitoring wells were installed after each boring was advanced to the desired depth. Wells consisted of 2-inch inside diameter, 5-foot-long PVC, 0.010-slot well screen, coupled onto flush-joint, 2-inch inside diameter PVC riser pipe. Natural soil was allowed to collapse around the well screen as the 3-inch casing was removed from the boring. A 1-foot-thick bentonite seal was installed above the well screen. Pending approval from the Navy, the temporary wells will be abandoned by removing the well screen and riser pipe, and filling the boring with a bentonite-cement slurry.

## 2.4 GROUNDWATER SAMPLING

One groundwater sample was collected from each temporary monitoring well and was sent to the laboratory for TCL/TAL analyses. The samples were collected using a peristaltic sampling pump with a low-flow sample rate to minimize sample turbidity.

Prior to obtaining the groundwater samples, the static water level was measured to determine the amount of water in one casing volume. The wells were purged at a rate of 0.3 liters per minute using a low-flow suction lift peristaltic pump and dedicated hose to minimize turbulence. Measurements of pH, specific conductance, temperature, ORP, DO, salinity, and turbidity were recorded every 5 to 10 minutes during purging. Purging stopped and the wells were sampled when two consecutive readings of pH, specific conductance, temperature, ORP, DO, salinity, and turbidity were similar (± 10 percent).

The wells were sampled directly from the pump outlet for all analytes except volatile organics with a flow rate of 0.3 liters per minute. Sample vials for volatile organic analysis were filled by crimping the discharge end of the sample tubing when filled, while removing the inlet end of the sample tubing from the well. The inlet end was suspended above the vial and the discharge end was opened, allowing water to fill each vial by gravity flow.

## 2.5 DECONTAMINATION

The equipment involved in field sampling activities was decontaminated prior to and during drilling and sampling activities. This equipment included downhole drilling tools, augers, well riser pipe and screens, and all non-dedicated sampling equipment. Specific decontamination procedures are discussed in the following subsections.

### 2.5.1 Major Equipment

All downhole drilling equipment and sampling tools were steam cleaned prior to beginning work, between well borings, and at the completion of the drilling program. In addition, well riser pipe and screen was steam cleaned prior to being installed into the borings.

The major equipment decontamination operations consisted of washing the equipment using a high-pressure steam wash. All decontamination activities were performed at the designated decontamination pad located on base near the Area A Landfill.

### 2.5.2 Sampling Equipment

All non dedicated sampling equipment was decontaminated both prior to beginning field sampling and between samples. This equipment included the split-spoon samplers. The following decontamination steps were taken:

- Potable water and Alconox or Liquinox detergent wash
- Potable water rinse
- 10% Nitric acid rinse
- Distilled/Deionized water rinse (analyte free)
- Methanol rinse
- Hexane rinse
- Distilled/Deionized water rinse (analyte free)
- Air dry

Field analytical equipment such as instrument probes was rinsed first with analyte-free water, then with the sample liquid.

## 2.6 WASTE HANDLING

All decontamination and purge liquids were collected, containerized, and stored on site in Department of Transportation (DOT)-approved (Specification 17-C), 55-gallon drums. All drill cuttings were also collected and stored on site in the DOT-approved drums. All drums were sealed and labeled with drum contents and well/boring number. The drums were stored at the drum storage area located on base near the Area A Landfill. Pending approval from applicable regulatory agencies, Halliburton NUS has recommended that all waters collected be discharged to the base sewer system that leads to the Town of Groton Sanitary Sewer System. A recommendation regarding disposal of the drill cuttings will be made in the near future after a thorough review of the drill cuttings analyses results are made.

## 2.7 QUALITY CONTROL SAMPLES

In addition to standard sample acquisition, quality control (QC) samples were collected in accordance with Navy guidance. Those QC samples included 4 trip blanks (OT5-TB1 through OT5-TB4), 4 equipment rinsate blanks (OT-RB01 through OT-RB04), and 3 field duplicate pairs (samples OT-S001-1820/OT-S001-1820D, OT-S003-1719/OT-S003-1719D, and OT-GW04/OT-GW04D). Each type of field QC sample is defined as follows:

- **Trip Blanks**. Trip blanks were samples which originated from analyte-free water collected in sample vials at the laboratory. The vials were shipped with the sample containers to the sampling site and returned to the laboratory with the Volatile Organic Compound (VOC) samples. One trip blank was assigned to each cooler containing VOCs. The trip blanks were analyzed for volatile organic compounds.

- **Equipment Rinsate Blanks**. Equipment rinsate blanks were obtained under representative field conditions by running analyte-free water through the split-spoon sampler after decontamination and placing the runoff water in the appropriate sample containers for analysis. Equipment blanks are used to assess the effectiveness of decontamination procedures.

- **Field Duplicates**. Field duplicates were generated by splitting selected samples into two portions for analysis. The field duplicates were used to assess the overall precision of the sampling and analysis program. The field duplicates were analyzed in the laboratory for the same parameters as the associated environmental samples.

# 3.0 INVESTIGATION RESULTS

## 3.1 GEOLOGY/HYDROLOGY

Figure 3-1 illustrates a cross section through Waste Oil Tank 5 that was developed based upon the data obtained during the drilling and installation of the temporary monitoring wells. Approximately 5 feet of soil overlies the tank. The soil consists of silty sand and varying amounts of gravel. Beneath the tank the soils consist of sandy gravel and gravelly sand mixtures. The soils grade to micaceous silty sand and sandy silt with increasing depth. The silty sand and sandy silt materials appear to be naturally-occurring sediment, whereas the overlying materials consist of manmade fill or reworked natural materials.

Groundwater was encountered only in the soils which underlie the tank bottom. After installation of the temporary monitoring wells, groundwater elevations within the temporary wells and water elevations in the tank were similar indicating that the water within the tank and groundwater are hydraulically connected. The water level elevation in the tank tends to rise with the surrounding groundwater immediately after precipitation occurrences, and water level elevations in the wells and the tank fall during dry periods, indicating that the groundwater and the tank are predominantly recharged by precipitation infiltration.

## 3.2 ANALYTICAL RESULTS

A discussion of the analytical results for the Waste Oil Tank Site is presented in the remainder of this section. Data summaries indicating the frequency and range of detection for those chemicals found to be present in each sampled media are provided, as well as a comparison of detected concentrations to regulatory standards (i.e., Federal and/or State drinking water criteria, soil screening levels, TCLP regulatory levels, etc.). The entire data base for the site can be found in Appendix C.

### 3.2.1 Tank Water

A summary of those chemicals detected in the tank waters is outlined in Table 3-1. No TCL volatiles were found in these samples. Twenty-one organic and eight inorganic constituents were detected in the tank waters. All of the reported concentrations for semivolatile organic compounds, except for 4-methylphenol, naphthalene, and 2-methylnapthalene, were low (i.e., less than the associated Contract Required Quantitation Limit (CRQL)). Detected concentrations of pesticides and PCBs ranged from 0.12 $\mu$g/L (endrin aldehyde; sample TW02) to 26 $\mu$g/L (Aroclor-1260; sample TW01).

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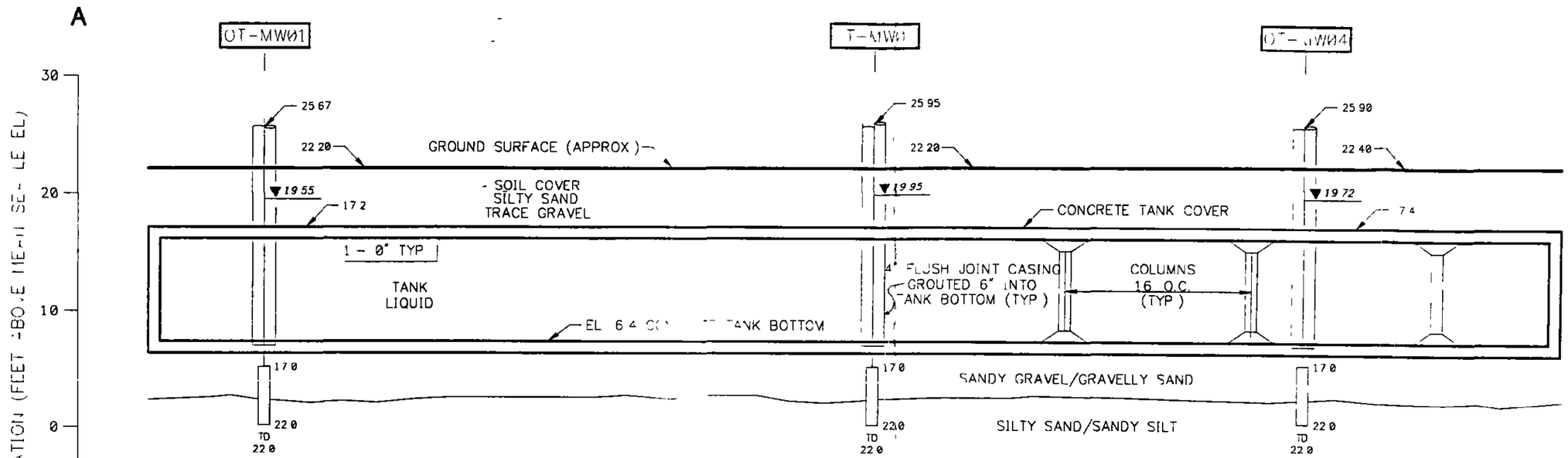


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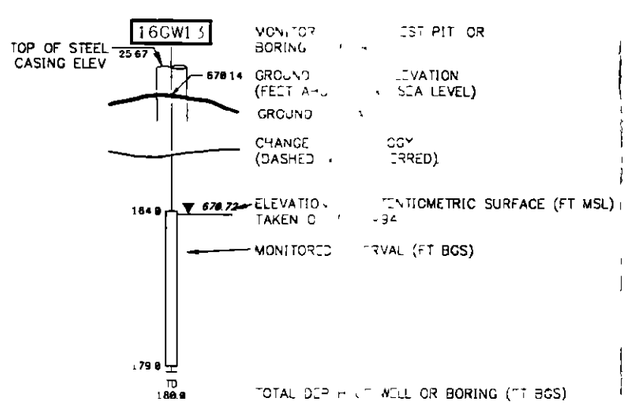


NOTE ELEVATIONS ARE APPROXIMATE AND ARE BASED ON GZA DRAWING ENTITLED TOPOGRAPHIC PLAN (WASTE OIL TANK 5) DRAWING No 2 NOVEMBER 1991

REFER TO BORING LOGS AND WELL CONSTRUCTION LOGS FOR MORE DETAILS

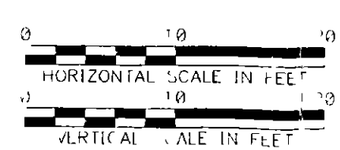


FIGURE 3-1

HALLIBURTON NUS
Environmental Corporation

CROSS SECTION A-A'
NAVAL SUBMARINE BASE, NEW LONDON, GROTON, CT

0040 301Z

**TABLE 3-1**

**DATA SUMMARY - TANK WATER (μg/L)**
**CTO 0129, WASTE OIL TANK 5**
**NSB NEW LONDON, GROTON, CONNECTICUT**

| Chemical | | Frequency of Detection[1] | Range of Detection[1] |
|---|---|---|---|
| **Semivolatile Organic Compounds:** | 1,4-Dichlorobenzene | 1/2 | 0.6 J |
| | 2-Methylphenol | 1/2 | 0.8 J |
| | 4-Methylphenol | 2/2 | 0.5 J - 180 |
| | 2,4-Dimethylphenol | 2/2 | 2 J - 8 J |
| | 1,2,4-Trichlorobenzene | 2/2 | 13 - 14 J |
| | Naphthalene | 1/2 | 170 |
| | 2-Methylnaphthalene | 1/2 | 390 |
| | Acenaphthene | 2/2 | 0.6 J - 14 J |
| | Dibenzofuran | 1/2 | 12 J |
| | Fluorene | 2/2 | 0.6J - 35 J |
| | Phenanthrene | 1/2 | 59 J |
| | Pyrene | 1/2 | 13 J |
| | Benzo(a)anthracene | 1/2 | 7 J |
| | Chrysene | 1/2 | 10 J |
| **Pesticides/PCBs:** | 4,4'-DDE | 1/2 | 0.27 |
| | 4,4'-DDD | 1/2 | 0.14 |
| | 4,4'-DDT | 2/2 | 0.26 - 1.1 |
| | Endrin aldehyde | 1/2 | 0.12 |
| | Gamma chlordane | 2/2 | 0.051 |
| | Aroclor-1254 | 2/2 | 0.84 J - 13 |
| | Aroclor-1260 | 2/2 | 3.3 - 26 |
| **Inorganics:** | Barium | 4/4 | 30.4 - 40.1 |
| | Calcium | 4/4 | 42,900 - 44,600 |
| | Chromium (total) | 1/4 | 4.2 |
| | Iron | 4/4 | 327 - 998 |
| | Magnesium | 4/4 | 5,090 - 5,280 |
| | Manganese | 4/4 | 654 - 683 |
| | Potassium | 4/4 | 5,320 - 5,650 |
| | Sodium | 4/4 | 29,500 - 30,400 |

(1) Includes sample and duplicate results. Total and dissolved sample results are presented for inorganics.

Tank water samples were also analyzed for total and dissolved TAL metals. Similar concentrations of metals were reported for both samples. Barium, calcium, iron, magnesium, manganese, potassium, and sodium were detected in all four samples. Chromium was detected in only one sample (total sample TW01) at a concentration of 4.2 $\mu$g/L. Many of the potentially toxic metals (i.e., arsenic, beryllium, cadmium, mercury, lead, and nickel) were not detected in the tank water samples.

A comparison of analytical results to regulatory criteria was not performed for this medium. Federal and state Maximum Contaminant Levels (MCLs) are not applicable, as these standard apply to water used for drinking water purposes.

### 3.2.2 Concrete

Concrete samples were analyzed for TCL PCBs and TCLP volatiles, semivolatiles, herbicides, pesticides, and inorganics. No PCBs, volatiles, herbicides, or pesticides were detected in the concrete samples or associated TCLP extracts. The semivolatile compounds 2-methylphenol, which was detected in three extracts, and 4-methylphenol, which was detected in two extracts, were found at concentrations ranging from 2 $\mu$g/L to 10 $\mu$g/L. Three inorganics (barium, chromium, and mercury) were detected in the TCLP extracts at varying concentrations. As shown in Table 3-2, all of the reported concentrations for these chemicals were less than the associated Federal regulatory limits (40 CFR Part 261).

### 3.2.3 Soil

Fourteen soil samples were collected at depths ranging from 2 to 22 feet from four boring locations at the site. A summary of the analytical results for this medium is presented in Table 3-3. In this table, contamination detected in the soil above the tank (< 5 feet) was distinguished from contamination found in the soil below the tank (> 17 feet).

Detected soil concentrations were compared to calculated Soil Screening Levels (SSLs). SSLs were developed based on current guidance (U.S. EPA, September 1993) and are presented in Appendix D. An SSL is a risk-based chemical concentration in soil which, if exceeded, represents a level of contamination which can be considered to be a potential "concern." SSLs were estimated for three exposure pathways--direct ingestion of soil, inhalation of fugitive dust, and migration of contaminants to groundwater. Concentrations of contaminants detected in soil above the tank were compared to these SSLs. Although ingestion and inhalation SSLs are usually applicable to surface soil contamination only, these values were used in this evaluation for soil above the Waste Oil Tank since no surface soil samples were collected at the

**TABLE 3-2**

**DATA SUMMARY - CONCRETE (μg/L)**
**CTO 0129, WASTE OIL TANK 5**
**NSB NEW LONDON, GROTON, CONNECTICUT**

| Chemical | Frequency of Detection[1] | Range of Detection[1] | Federal Regulatory Limit[2] |
|---|---|---|---|
| **TCLP Semivolatile Organic Compounds:** | | | |
| 2-Methylphenol (o-cresol) | 3/8 | 2 J - 10 J | 200,000 |
| 4-Methylphenol (p-cresol) | 2/8 | 7 J | 200,000 |
| **TCLP Inorganics:** | | | |
| Barium | 11/11 | 84.2 - 266 | 100,000 |
| Chromium (total) | 9/11 | 4.4 - 17.8 | 5,000 |
| Mercury | 5/11 | 3.0 - 5.7 | 200 |

(1) Includes sample and duplicate results.
(2) Regulatory Limits for Toxicity Characteristic Leaching Procedure (TCLP) extracts (40 CFR Part 261, March 29, 1990).

TABLE 3-3

DATA SUMMARY - SOIL (mg/kg)
CTO 0129, WASTE OIL TANK 5
NSB NEW LONDON, GROTON, CONNECTICUT

| Chemical | | Frequency of Detection[1] | Range of Detection[1] | Soil Screening Level[2] | |
|---|---|---|---|---|---|
| | | | | Ingestion/ Inhalation Pathway | Groundwater Pathway |
| **SOIL ABOVE TANK (< 5 FEET):** | | | | | |
| **Volatile Organic Compounds** | Ethylbenzene | 1/4 | 0.400 | 340 | 16 |
| | Xylenes (total) | 1/4 | 0.310 | 280 | 180 |
| **Semivolatile Organic Compounds** | Benzo(a)anthracene | 1/4 | 0.021 J | 0.58 | 0.40 |
| | Benzoic acid | 2/4 | 0.033 J - 0.044 J | 900 | NA |
| | Chrysene | 1/4 | 0.038 J | 0.72 | 0.80 |
| | Dibenzofuran | 1/4 | 0.170 J | NA | NA |
| | Fluorene | 1/4 | 0.470 | 25 | NA |
| | 2-Methylnaphthalene | 1/4 | 2.6 | 1,600 | NA |
| | Naphthalene | 1/4 | 0.660 | 60 | NA |
| | Phenanthrene | 1/4 | 0.470 | NA | NA |
| | Pyrene | 1/4 | 0.066 J | 9.9 | NA |
| **Pesticides** | 4,4'-DDD | 2/4 | 0.0044 J - 0.017 J | 2.7 | NA |
| | 4,4'-DDE | 3/4 | 0.0044 J - 0.012 J | 1.9 | NA |
| | 4,4'-DDT | 3/4 | 0.012 - 0.071 | 1.9 | NA |
| **Inorganics** | Aluminum | 4/4 | 10,400 - 12,900 | NA | NA |
| | Arsenic | 2/4 | **2.7 - 2.8** | 0.36 | 14 |
| | Barium | 4/4 | 62.1 - 86.6 | 5,500 | NA |
| | Beryllium | 4/4 | **0.36 - 0.43** | 0.15 | NA |
| | Calcium | 4/4 | 2,030 - 2,240 | NA | NA |
| | Chromium (total) | 4/4 | 15.2 - 16.0 | 92[3] (78,000[4]) | 19[3] |
| | Cobalt | 4/4 | 5.4 - 6.2 | 630 | NA |
| | Copper | 4/4 | 14.5 - 16.5 | 3,100 | NA |

**TABLE 3-3 (Continued)**

| Chemical | | Frequency of Detection[1] | Range of Detection[1] | Soil Screening Level[2] | |
|---|---|---|---|---|---|
| | | | | Ingestion/ Inhalation Pathway | Groundwater Pathway |
| **SOIL ABOVE TANK (< 5 FEET): (Cont'd)** | | | | | |
| **Inorganics (Cont'd)** | Iron | 4/4 | 12,200 - 15,100 | NA | NA |
| | Lead | 4/4 | 4.9 - 9.7 | 500[5] | 500[5] |
| | Magnesium | 4/4 | 3,610 - 4,600 | NA | NA |
| | Manganese | 4/4 | 215 - 279 | 7,800 | NA |
| | Nickel | 4/4 | 9.4 - 11.1 | 1,600 | 82 |
| | Potassium | 4/4 | 2,450 - 3,380 | NA | NA |
| | Sodium | 4/4 | 237 - 278 | NA | NA |
| | Vanadium | 4/4 | 25.0 - 29.9 | 550 | NA |
| | Zinc | 4/4 | 36.4 - 41.5 | 24,000 | NA |
| **SOIL BELOW TANK (> 17 FEET):** | | | | | |
| **Volatile Organic Compounds** | Methylene chloride | 5/10 | 0.003 J - 0.009 J | [6] | 0.06 |
| **Semivolatile Organic Compounds** | Di-n-butylphthalate | 1/10 | 0.034 J | [6] | NA |
| **Inorganics** | Aluminum | 10/10 | 5,400 - 17,300 | [6] | NA |
| | Antimony | 1/10 | 6.6 | [6] | NA |
| | Arsenic | 8/10 | 1.1 - 3.9 | [6] | 14 |
| | Barium | 10/10 | 24.5 - 145 | [6] | NA |
| | Beryllium | 4/10 | 0.25 - 0.60 | [6] | NA |
| | Calcium | 10/10 | 1,050 - 7,120 | [6] | NA |
| | Chromium (total) | 10/10 | 6.3 - **30.7** | [6] | 19[3] |
| | Cobalt | 10/10 | 2.8 - 8.8 | [6] | NA |
| | Copper | 10/10 | 8.7 - 80.1 | [6] | NA |
| | Iron | 10/10 | 6,750 - 24,000 | [6] | NA |
| | Lead | 4/10 | 3.2 - 4.9 | [6] | 500[5] |

**TABLE 3-3 (Continued)**

| Chemical | | Frequency of Detection[1] | Range of Detection[1] | Soil Screening Level[2] | |
|---|---|---|---|---|---|
| | | | | Ingestion/ Inhalation Pathway | Groundwater Pathway |
| **SOIL BELOW TANK (> 17 FEET): (Cont'd)** | | | | | |
| **Inorganics (Cont'd)** | Magnesium | 10/10 | 2,140 - 7,430 | [6] | NA |
| | Manganese | 10/10 | 112 - 498 | [6] | NA |
| | Nickel | 10/10 | 5.5 - 22.3 | [6] | 82 |
| | Potassium | 10/10 | 1,210 - 5,900 | [6] | NA |
| | Sodium | 7/10 | 164 - 548 | [6] | NA |
| | Vanadium | 10/10 | 11.1 - 49.8 | [6] | NA |
| | Zinc | 10/10 | 21.5 - 64.9 | [6] | NA |

Bolded value indicates maximum detected concentration or range of detections exceed a SSL.
NA = Not available.

(1) Includes sample and duplicate results.
(2) SSLs calculated according to current U.S. EPA guidance (U.S. EPA, September 1993). Calculation of SSLs contained in Appendix D.
(3) Value listed is for hexavalent chromium.
(4) Value listed is for trivalent chromium.
(5) Interim soil cleanup level (U.S. EPA, September 7, 1989).
(6) SSL is not applicable for soil collected at depths below the Waste Oil Tank. Ingestion/inhalation SSL is only applicable to surface soil contamination.

site and because the majority of contamination was found at depths ranging from 2 to 4 feet. Contaminant concentrations detected in the soil below the tank were compared to only the groundwater pathway SSL.

#### 3.2.3.1 Soil Above Tank

Eleven TCL volatile and semivolatile organic compounds were found to be present in soil above the Waste Oil Tank at concentrations ranging from 21 $\mu$g/kg (benzo(a)anthracene) to 2,600 $\mu$g/kg (2-methyl-naphthalene). Pesticide compounds including 4,4'-DDD, 4,4-DDE, and 4,4'-DDT were also detected. In addition, to essential human nutrients (calcium, iron, magnesium, potassium, and sodium), twelve metals were detected in the above tank soil samples at varying concentrations.

All organic and inorganic constituents, except for arsenic and beryllium, were found at concentrations less than the calculated SSLs for ingestion/inhalation and groundwater pathways. Detected concentrations of arsenic (2.7 mg/kg at location S003 and 2.8 mg/kg at location S004) exceeded the SSL for ingestion/ inhalation, 0.36 mg/kg. However, reported concentrations for this analyte were below the groundwater pathway SSL (14 mg/kg). Beryllium was found in all four of the above tank soil samples at concentrations ranging from 0.36 mg/kg to 0.43 mg/kg. Detected concentrations for this analyte slightly exceeded the 0.15 mg/kg SSL for the ingestion/inhalation pathway.

#### 3.2.3.2 Soil Below Tank

The only organic compounds detected in the soil samples from below the Waste Oil Tank were methylene chloride and di-n-butylphthalate. These compounds were detected at concentrations less than the associated CRQLs. The presence of these compounds may be a result of laboratory contamination. Eighteen inorganics were found in the soil samples at varying concentrations. Aluminum, barium, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, vanadium, and zinc were found in all of the soil samples. A concentration of 6.6 mg/kg was reported for antimony in one sample, location S004 at a depth of 19 to 21 feet. Beryllium and lead were found in four below-tank soil samples. Detected concentrations of sodium ranged from 164 mg/kg to 548 mg/kg in seven soil samples. Arsenic was detected in eight samples at concentrations ranging from 1.1 mg/kg to 3.9 mg/kg.

Groundwater pathway SSLs were available for 5 of the 20 contaminants detected in the soil from below the Waste Oil Tank. The only contaminant reported at concentrations exceeding the SSLs was total chromium. Concentrations of this analyte in three soil samples, collected at depths ranging from 19 to 22 feet, exceeded the SSL for the groundwater pathway. It should be noted that the 19 mg/kg SSL used for this evaluation is based on the MCL for hexavalent chromium.

### 3.2.4 Groundwater

Table 3-4 summarizes the analytical results for the four groundwater samples collected at the Waste Oil Tank Site. Five organic compounds (acetone, chloroform, bromodichloromethane, tetrachloroethene, and 2,6-dinitrotoluene) were found in the samples obtained from wells MW01, MW03, and MW04. Reported concentrations of bromodichloromethane, tetrachloroethene, and 2,6-dinitrotoluene are below the CRQLs. Acetone and chloroform, which are common laboratory contaminants, were found at relatively low concentrations. No pesticides were detected. Several inorganics were detected in the total and dissolved groundwater samples at varying concentrations. The only chemical reported at a concentration exceeding the MCL was tetrachloroethene, which was found in one groundwater sample (6 $\mu$g/L in well GW04).

## 3.3 SUMMARY

This section presents a summary of the analytical results for the Waste Oil Tank 5 Site, as well as conclusions derived from results of this investigation.

Various semivolatile organic compounds, pesticides, and PCBs were detected in sampled tank waters at relatively low concentrations. With the exception of barium, chromium, and manganese, all of the inorganic constituents detected in the tank waters were essential human nutrients. No inorganics were found to be present at potentially toxic levels.

No TCL PCBs were detected in the concrete samples. Concrete samples were also analyzed for volatile, semivolatile, herbicide, pesticide, and inorganic TCLP parameters. TCLP volatiles and herbicides were not found in the extract samples. Two semivolatile organics (2-methylphenol and 4-methylphenol) and three inorganics (barium, total chromium, and mercury) were detected in the TCLP extracts. None of these contaminants were found at levels exceeding TCLP Federal regulatory limits.

During this investigation, soil samples were collected from above and below the Waste Oil Tank. The analytical results for these samples indicate that the majority of contamination, especially organic contamination, is located at depths above the tank (< 5 feet). Detected concentrations in soil were compared to SSLs for ingestion/inhalation and groundwater pathways. Reported levels of arsenic and beryllium in the soil above the tank and chromium in three soil samples collected at depths below the tank exceeded associated SSLs. However, the following items regarding these exceedances should be noted:

- All reported arsenic concentrations were below the SSL associated with the migration of contaminants to groundwater.

## TABLE 3-4

## DATA SUMMARY - GROUNDWATER (μg/L)
## CTO 0129, WASTE OIL TANK 5
## NSB NEW LONDON, GROTON, CONNECTICUT

| Chemical | Frequency of Detection[1] | Range of Detection[1] | Federal MCL[2] | Connecticut MCL[3] |
|---|---|---|---|---|
| **Volatile Organic Compounds:** | | | | |
| Acetone | 1/5 | 18 | NA | NA |
| Chloroform | 2/5 | 11 - 18 | 100 | NA |
| Bromodichloromethane | 2/5 | 4 J - 9 J | 100 | NA |
| Tetrachloroethene | 1/5 | **6 J** | 5 | NA |
| **Semivolatile Organic Compounds:** | | | | |
| 2,6-Dinitrotoluene | 1/5 | 0.6 J | NA | NA |
| **Inorganics:** | | | | |
| Aluminum | 5/10 | 49.3 - 2,060 | NA | NA |
| Barium | 7/10 | 43.4 - 103 | 2,000 | 1,000 |
| Calcium | 10/10 | 34,500 - 50,800 | NA | NA |
| Chromium (total) | 3/10 | 3.9 - 6.0 | 100 | 50 |
| Copper | 2/10 | 2.8 - 90.5 | 1,300[4] | 1,000 |
| Iron | 9/10 | 246 - 2,840 | NA | NA |
| Magnesium | 10/10 | 4,820 - 7,580 | NA | NA |
| Manganese | 10/10 | 35.7 - 796 | NA | NA |
| Mercury | 2/10 | 0.45 - 0.89 | 2 | 2 |
| Nickel | 2/10 | 11.4 - 13.0 | 100 | NA |
| Potassium | 10/10 | 4,660 - 5,810 | NA | NA |
| Sodium | 10/10 | 27,400 - 68,800 | NA | NA |
| Zinc | 3/10 | 4.8 - 22.6 | NA | NA |

Bolded value indicates maximum detected concentration exceeds Federal and/or State MCL.
NA = Not available.
(1) Includes sample and duplicate results. Total and dissolved sample results listed for metals.
(2) Maximum Contaminant Level (MCL), Safe Drinking Water Act (U.S. EPA, December 1993).
(3) Connecticut Drinking Water Regulations, December 27, 1990.
(4) Value presented in an Action Level (U.S. EPA, June 1991).

- Although detected concentrations of arsenic and beryllium exceeded the SSL for inhalation/ ingestion, this SSL is developed based on assumptions regarding surface soil exposure. Reported contaminant concentrations were found in samples obtained from a depth of 2 to 4 feet.

- The evaluation of chromium is extremely conservative since detected concentrations of total chromium in subsurface soil were compared to the groundwater pathway SSL associated with hexavalent chromium.

Five organic constituents and several inorganic analytes were detected in the total and dissolved groundwater samples from the site. The only chemical which was found at a concentration slightly exceeding a Federal or State MCL was tetrachloroethene. This volatile was detected in only one sample at a concentration less than the CRQL.

Based on the analytical results obtained from this investigation, it is concluded that the contents of the Waste Oil Tank have not significantly impacted the subsurface soil below the tank or the underlying groundwater. The majority of soil contamination was found at a depth of 2 to 4 feet, which is above the tank. With the exception of a single detection of tetrachloroethene (6 $\mu$g/L), no contaminants were detected in the groundwater above Federal drinking water standards.

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# APPENDIX A

## SAMPLE LOGSHEETS AND COCS

HALLIBURTON NUS
Environmental Corporation

# SAMPLE LOG SHEET



☐ SURFACE SOIL
☒ SUBSURFACE SOIL
☐ SEDIMENT
☐ LAGOON/POND
☒ OTHER (CONCRETE)

SAMPLERS SIGNATURE SJ Conti.

SITE NAME NSB-NLON - OT-5

SITE NUMBER 9594

| SAMPLE No. | SAMPLE METHOD | DEPTH (F) | DATE | TIME | SAMPLED BY | CONCENTRATION (L)LOW (H)HIGH | (G)RAB (C)COMPOSITE | ANALYSES: 2-40ml VOA TCL VOAs | 1-20z GLASS TCL VOAs | 1-80z GLASS TCL BNAs/TAL-Metals | 6" Concrete Core | HQ Concrete Core | | | No. OF CONT TOTAL | SOIL DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OT5-TB1 | DF | | 2-19-94 | 0800 | SJC | | | 2 | | | | | | | | TRIP BLANK FROM DI H2O |
| OT-S001-0002 | SS | 0'-2' | " | 1048 | JRF | | | | 1 | 1 | | | | | 2 | DID NOT SEND THIS SAM |
| OT-S001-0204 | " | 2'-4' | " | 1052 | JRF | | | | 1 | 1 | | | | | 2 | BRN SILTY SAND -TR F GVL |
| OT-S002-0204 | " | 2-4 | " | 1550 | JRF | | | | 1 | 1 | | | | | 2 | BRN SILTY SAND OILY ODOR |
| OT-S003-0204 | " | 2-4 | 2/20/94 | 1230 | JRF | | | | 1 | 1 | | | | | 2 | SLIGHT PETROLEUM ODOR BROWN SILTY SAND |
| OT-S004-0204 | " | 2-4 | 2/21/94 | 0831 | JRF | | | | 1 | 1 | | | | | 2 | Silty, Very Fine - Fine Sand |
| OT-S001-1820 | " | 18'-20' | 2/21/94 | 12:34 | JRF | | | | 1 | 1 | | | | | 2 | SANDY (F-C) GRAVEL, GRAVELLY (F-C) S |
| OT-S001-1820D | " | " " | " " " | " " | " | | | | 1 | 1 | | | | | 2 | " " " |
| OT-S001-2022 | " | 20'-22' | " " " | 12:41 | " | | | | 1 | 1 | | | | | 2 | MICACEOUS SANDY SILT |
| OT-C004-0506 | DB | 5'-6' | " " " | 11:00 | " | | | | | | 1 | | | | 1 | Concrete Core |
| OT-C001-16-16.3 | DB | 16-16.3 | " " " | 12:24 | " | | | | | | | 1 | | | 1 | " " |
| OT-C001-16.3-17 | DB | 16.3'-17' | " " " | 12:24 | " | | | | | | | 1 | | | 1 | " " |

REMARKS:
DB - 6" Diamond bit core or HQ core

LAB:

ACAD: FORMS\LOG.DWG 2/11/93

**HALLIBURTON NUS**
*Environmental Corporation*

# SAMPLE LOG SHEET

PAGE ___ OF ___

☐ SURFACE SOIL
☒ SUBSURFACE SOIL
☐ SEDIMENT
☐ LAGOON/POND
☒ OTHER CONCRETE

SAMPLERS SIGNATURE: SJ Conte

SITE NAME: NSB - NLON - OT5

SITE NUMBER: 9594

| SAMPLE No. | SAMPLE METHOD | DEPTH (FT) | DATE | TIME | SAMPLED BY | CONCENTRATION (L)LOW (H)HIGH | (G)GRAB (C)COMPOSITE | ANALYSES: 2-40 ML TCL VOA'S | 1-2 oz GLASS TCL VOA'S | 1-8 oz GLASS TCL BNA, TAL INORGANICS | 6" CONCRETE CORE | HQ CONCRETE CORE | 1 L AMBER TCL BNAS | 1 L PE TAL INORG. | 8 oz GLASS SVOC, PEST, PCB TAL NFT BINDY | No. OF CONT TOTAL | 1 L AMBER PEST/PCBS | SOIL DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OT5-RB01 | SS | — | 2.20.94 | 1600 | SJC | L | G | 2 | | | | | 2 | 1 | | 5 | | SS TROWEL RINSATE BLANK |
| OT5-RB02 | SS | — | 2.22.94 | 0800 | SJC | L | G | 2 | | | | | 2 | 1 | | 5 | | " |
| OT5-TB2 | DF | — | 2.22.94 | 0800 | SJC | L | G | 2 | | | | | | | | 2 | | TRIP BLANK |
| OT5-TB3 | DF | — | 2.28.94 | 1300 | SJC | L | G | 2 | | | | | | | | 2 | | " |
| OT5-RB03 | SS | — | 2.28.94 | 1300 | SJC | L | G | SC ~~2~~ 2 | | | | | 2 | 1 | | 7 | 2 | SS TROWEL RINSATE BLANK |
| OT5-C002-1616.4 | DB | 16.00-16.40 | 2.28.94 | 1414 | JF | L | G | | | | | 1 | | | | 1 | | CONCRETE |
| OT5-C002-16.4-17 | DB | 16.40-17.00 | 2.28.94 | 1414 | JF | L | G | | | | | 1 | | | | 1 | | |
| OT5-S002-1719 | SS | 17.00-19.00 | 2.28.94 | 1431 | JF | L | G | | 1 | 1 | | | | | | 2 | | SANDY FINE/MED. GRAY |
| OT5-S002-1921 | SS | 19.00-21.00 | 2.28.94 | 1442 | JF | L | G | | 1 | 1 | | | | | | 2 | | GRAVELLY, COARS. SAND GRAY |
| OT5-C003-1616.4 | DB | 16.00-16.40 | 3.1.94 | 0900 | JF | L | G | | | | | 1 | | | | 1 | | CONCRETE |
| OT5-C003-16.4-16.7 | DB | 16.40-16.70 | 3.1.94 | 0900 | JF | L | G | | | | | 1 | | | | 1 | | CONCRETE |
| OT5-S003-1719 | SS | 17.00-19.00 | 3.1.94 | 0918 | JF | L | G | | 1 | 1 | | | | | | 2 | | GRAVELLY, MED/COARS SAND GRAY - DUP. TAK |
| OT5-S003-1921 | SS | 19.00-21.00 | 3.1.94 | 0924 | JF | L | G | | 1 | 1 | | | | | | 2 | | SILTY FINE SAND BROWN |
| OT5-C004-1616.3 | DB | 16.00-16.30 | 3.1.94 | 1218 | JF | L | G | | | | | 1 | | | | 1 | | CONCRETE |
| OT5-C004-16.3-16.75 | DB | 16.31-16.75 | 3.1.94 | 1218 | JF | L | G | | | | | 1 | | | | 1 | | " DUP. TAK |

REMARKS:
SS = STAINLESS STEEL TROWEL
DF = DIRECT FILL
DB = DIAMOND BIT OR HQ CORE

SEE ALSO C.O.C'S & BORING LOGS

LAB: S.W. LABS OK

ACAD: FORMS\LOG.DWG 2/11/93 MB

**HALLIBURTON NUS**
*Environmental Corporation*

# SAMPLE LOG SHEET

PA ___ OF ___

☐ SURFACE SOIL
☒ SUBSURFACE SOIL
☐ SEDIMENT
☐ LAGOON/POND
☒ OTHER CONCRETE

SAMPLERS SIGNATURE SJ Conti

SITE NAME NSB - NLON - OT5

SITE NUMBER 9594

| SAMPLE No. | SAMPLE METHOD | DEPTH (FT) | DATE | TIME | SAMPLED BY | CONCENTRATION (L)LOW (H)HIGH | (G)RAB (C)OMPOSITE | ANALYSES: 2 - 40 ml TCL VOA'S | 1 - 2 oz GLASS TCL SVOA'S | 1 - 8 oz GLASS TCL DNA, TAL INORGANICS | 1 - CONCRETE CORE | HQ CONCRETE CORE | 1 L AMBER TCL BNA'S | 1 L PE TAL INORG. | 8 oz GLASS SVOC, PEST, PCB TAL NFT + BNA'S | No. OF CONT TOTAL | 1 L AMBER PEST/PCB'S | SOIL DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OT-S004-1719 | SS | 17.00 - 19.00 | 3-1-94 | 1234 | JF | L | G | | 1 | 1 | | | | | | 2 | | GRAVELLY, MED/COARSE SAND GRAY |
| OT-S004-1921 | SS | 19.00 - 21.00 | 3-1-94 | 1245 | JF | L | G | | 1 | 1 | | | | | | 2 | | SILTY, MICACEOUS, FINE BROWN |

REMARKS:
SS = STAINLESS STEEL TROWEL

SEE ALSO COC'S + BORING LOGS

LAB: SW LABS OK

ACAD: FORMS\LOG.DWG 2/11/93 MB

# SAMPLE LOG SHEET

**HALLIBURTON NUS**
*Environmental Corporation*

Page ____ of ____

Case # ____

By ____

— Spring
— Lake
— Stream
X Other TANK 5

Project Site Name NSB-NLON  Project Site Number 259u

NUS Source No. OTTW01  Source Location TANK 5 FILL OPENIN

| Sample Method: | Sample Data | | | | |
|---|---|---|---|---|---|
| KEMMERER | pH | S.C. | Temp. (°C) | Color & Turbidity | |
| Depth Sampled: 02, 2.4, 4.6 FEET | 7.00 | MS/CM .383 | 6.8 | CLEAR | 24 |
| Sample Date & Time: 3·1·94 1635 | DO | E- | SALINITY % | | |
| Sampled By: KEITH SIMPSON | MG/L 3.03 | 340 ~~128~~ MS | — | | |
| Signatures: | | | | | |

MV = 128
+ 212
340

SAMPLED FROM FILL OPENING

Type of Sample
- X Low Concentration
- — High Concentration
- — Grab
- X Composite
- — Grab - Composite

SAMPLED WITH KEMMERER AT 2', 4' & 6' FOR ONE COMP. SAMPLE CLEAR WITH SOME OIL ON SURFACE, SLUDGE AT BOTTOM

| Analysis: | Preservative | Bottle Req. |
|---|---|---|
| VOC | HCl - pH < 2 | 2-40 ml VOA |
| SVOC | — | 2-1L Amber |
| DISS MET + BORON | $HNO_3$ - pH < 2 | 1-L PE |
| PEST / ~~BCE~~ | — | 2-1L Amber |
| TOTAL TAL MET. + BORON | $HNO_3$ - PH < 2 | 1 L PE |

FILTERED ~~+ HARDNESS~~

+ HARDNESS

WEATHER: SUNNY 35°F

SEE COC DATED 3·1·94

LAB: SW LAB

# SAMPLE LOG SHEET

**HALLIBURTON NUS**
*Environmental Corporation*

Page ____ of ____

Case # ____

By ____

- [ ] Spring
- [ ] Lake
- [ ] Stream
- [x] Other TANK 5

Project Site Name: NSB-NLON
Project Site Number: 259u
NUS Source No.: OT-TW 02
Source Location: TANK 5 - TRANSFER PUMP HOUSE

| Sample Method: REMMERER | Sample Data | | | | |
|---|---|---|---|---|---|
| | pH | S.C. | Temp. (°C) | Color & Turbidity | |
| Depth Sampled: FEET 02-24-46 | 6.32 | MS/CM .430 | 7.1 | CLEAR | 10 |
| Sample Date & Time: 3-1-94 1000 | DO | E- | SALINITY % | | |
| Sampled By: KEITH SIMPSON | MG/L 2.79 | 433 | — | | |
| Signatures: [signature] | | | | | |

MV = 221
+ 212
433

SAMPLED FROM TRANSFER PUMP HOUSE

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab - Composite

| Analysis: | Preservative | Bottle Req. |
|---|---|---|
| VOC | HCl - pH < 2 | 2-40 ml VOA |
| SVOC | — | 2-1L Amber |
| DISS MET + BORON | HNO3 - pH < 2 | 1-L PE |
| PES-~~PCBs~~ | — | 2-1L Amber |
| TOTAL TAL METALS + BORON | HNO3 pH < 2 | 1 L PE |

FILTERED ~~PARAMETERS~~

HARDNESS

SAMPLE CLEAR WITH SOME OIL
THICK SLUDGE AT TANK BOTTOM. WATER ~6' TOTAL
3 SAMPLES FOR COMP

WEATHER: SUNNY 32° F

SEE COC DATED 3-1-94

LAB: SW LABS

# SAMPLE LOG SHEET

**HALLIBURTON NUS**
*Environmental Corporation*

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name: NSB-NLON  Project Site Number: 9594

NUS Source No.: OT-GW 01  Source Location: OIL TANK 5

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Total Well Depth: | TIME | | | Purge Data | TURB | DO | SAL | MV |
| Well Casing Size & Depth: | Volume | pH | S.C. | Temp. (°C) | Color & Turbidity | | | |
| 2" PVC 25.5' T PVC | 1455 | 6.9 | .491 | 8.4 | 395 | 2.57 | 0.01 | 96 |
| Static Water Level: 8.8' | 1500 | 6.9 | .498 | 8.2 | 200 | 2.78 | 0.01 | 93 |
| One Casing Volume: 2.72 GAL | 1505 | 6.9 | .507 | 8.0 | 122 | 4.21 | 0.02 | 194 |
| Start Purge (hrs.): 1450 | 1510 | 6.9 | .509 | 7.8 | 83 | 2.45 | 0.02 | 120 |
| End Purge (hrs.): 1530 | 1520 | 6.8 | .503 | 7.5 | 73 | 2.66 | 0.02 | 158 |
| Total Purge Time (min.): 40 | | | | | | | | |
| Total Amount Purged (gal.): ~~12~~ KS | | | | | | | | |
| Monitor Reading: 3.2 | | | | | | | | |
| Purge Method: PERISTALTIC | | | | | | | | |
| Sample Method: " /BAILER | | | | | | | | |
| Depth Sampled: 3 1.94 | | | | | | | | |
| Sample Date & Time: 3.1.94 1530 | Sample Data | | | | | | | |
| | pH | S.C. | Temp. (°C) | Color & Turbidity | | | | |
| Sampled By: RS / TC | 6.8 | .503 | 7.5 | 73 | 2.66 | 0.02 | 158 | |

Signature(s): RS

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes: 16.7 X .163 = 2.72 GAL/VOL

PUMP RATE = .3 L/MIN

.3 L = .0793 GAL

| | Analysis: | Preservative | | | | |
|---|---|---|---|---|---|---|
| | VOCs | HCL <4°C | PH<2 | | | |
| | SVOCs | <4°C | | | | |
| TOTAL | TAL METALS + BORON | $HNO_3$ <4°C | PH<2 | + HARDNESS | | |
| DISSOLVED | TAL METALS + BORON | $HNO_3$ <4°C | PH<2 | FILTERED | | |

# SAMPLE LOG SHEET

**HALLIBURTON NUS**
*Environmental Corporation*

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

Page ____ of ____
Case # _____
By _____

Project Site Name: NSB-NLON  Project Site Number: 9594
NUS Source No.: OT GW 02  Source Location: OT 5

| Total Well Depth: | TIME | Purge Data | | | TURB | DO | SAL | MV |
|---|---|---|---|---|---|---|---|---|
| Well Casing Size & Depth: | Volume | pH | S.C. | Temp. (°C) | Color & Turbidity | | | |
| 2" PVC 25.3 T PVC | 1010 | 6.21 | .257 | 6.3 | 32 | 4.87 | .01 | 108 |
| Static Water Level: 9.22 | 1020 | 6.14 | .256 | 7.0 | 43 | 3.48 | .00 | 22 |
| One Casing Volume: 2.6 | 1030 | 6.38 | .343 | 8.0 | 366 | 3.30 | .01 | 15 |
| Start Purge (hrs.): 1005 | 1040 | 6.37 | .353 | 8.0 | 323 | 2.40 | .01 | 0 |
| End Purge (hrs.): 1135 | 1050 | 6.43 | .358 | 7.8 | 235 | 3.46 | .01 | 2 |
| Total Purge Time (min.): 95 | 1100 | 6.47 | .365 | 7.6 | 143 | 3.17 | .01 | 2 |
| Total Amount Purged (gal.): 7.5 | 1110 | 6.51 | .378 | 7.7 | 96 | 3.58 | .01 | 0 |
| Monitor Reading: | 1120 | 6.51 | .375 | 8.0 | 64 | 3.77 | .01 | 0 |
| | 1130 | 6.57 | .386 | 8.0 | 48 | 3.45 | .01 | 0 |
| Purge Method: PERISTALTIC | | | | | | | | |
| Sample Method: " / BAILER | | | | | | | | |
| Depth Sampled: — | | | | | | | | |
| Sample Date & Time: 3-2-94 1140 | Sample Data | | | | | | | |
| | pH | S.C. | Temp. (°C) | Color & Turbidity | | | | |
| Sampled By: RS / TC | 6.57 | .386 | 8.0 | 48 | 3.45 | .01 | 0 | |

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:

16.03 X .163 = 2.6 GAL/VOL

PUMP RATE = .3 L/M

.3 L = .0793 GAL

| Analysis: | Preservative | | | | |
|---|---|---|---|---|---|
| VOCs | HCL <4°C | PH<2 | | | |
| SVOCs | <4°C | | | | |
| TOTAL METALS + BORON | $HNO_3$ <4°C | PH<2 | + HARDNESS | | |
| DISSOLVED METALS + BORON | $HNO_3$ <4°C | PH<2 | FILTERED | | |

# SAMPLE LOG SHEET

**HALLIBURTON NUS**
*Environmental Corporation*

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

Page ____ of ____
Case # _____
By _____

Project Site Name: NSB-NLON  Project Site Number: 9594
NUS Source No.: OT-GW 03  Source Location: OIL TANK 5

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Total Well Depth: 25.6 TPVC | TIME | Purge Data | | | TURB | DO | SAL | MV |
| Well Casing Size & Depth: | ~~Volume~~ | pH | S.C. | Temp. (°C) | Color & Turbidity | | | |
| 2" PVC 25.6 TPVC | 1555 | 7.36 | .359 | 9.0 | 396 | 10.73 | 0.01 | 10 |
| Static Water Level: 8.9 | 1605 | 7.12 | .351 | 9.0 | 188 | 7.31 | 0.01 | -3 |
| One Casing Volume: 2.72 GAL | 1615 | 7.15 | .381 | 8.9 | 63 | 3.33 | 0.01 | 10 |
| Start Purge (hrs.): KS ~~1530~~ 1550 | 1625 | 7.00 | .358 | 8.8 | 25 | 2.23 | 0.01 | 10 |
| End Purge (hrs.): 1640 | 1635 | 7.03 | .346 | 8.9 | 23 | 2.25 | 0.01 | 10 |
| Total Purge Time (min.): 50 | | | | | | | | |
| Total Amount Purged (gal.): 4 | | | | | | | | |
| Monitor Reading: — | | | | | | | | |
| Purge Method: PERISTALTIC | | | | | | | | |
| Sample Method: " / BAILER | | | | | | | | |
| Depth Sampled: | | | | | | | | |
| Sample Date & Time: | Sample Data | | | | | | | |
| 3 1 94 1640 | pH | S.C. | Temp. (°C) | | Color & Turbidity | | | |
| Sampled By: RS / TC | 7.03 | .346 | 8.9 | | 23 | 2.25 | 0.01 | 10 |

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:
16.7 x .163 = 2.72 GAL/VOL
PUMP RATE = .3 L/MIN
.3 L = .0793 GAL

| | Analysis: | Preservative | | | | |
|---|---|---|---|---|---|---|
| | VOCs | HCL <4°C | PH<2 | | | |
| | SVOCs | <4°C | | | | |
| TOTAL | TAL METALS + BORON | $HNO_3$ <4°C | PH<2 | + HARDNESS | | |
| DISSOLVED | TAL METALS + BORON | $HNO_3$ <4°C | PH<2 | FILTERED | | |

# SAMPLE LOG SHEET

**HALLIBURTON NUS**
*Environmental Corporation*

- [x] Monitoring Well Data
- [ ] Domestic Well Data
- [ ] Other _____

Page ____ of ____

Case # _____

By _____

Project Site Name: NSB-NLON  Project Site Number: 9594

NUS Source No.: OT GW 04  Source Location: OT 5

| | TIME | | | Purge Data | TURB | DO | SAL | MV |
|---|---|---|---|---|---|---|---|---|
| Total Well Depth: 25.5' | Volume | pH | S.C. | Temp. (°C) | Color & Turbidity | | | |
| Well Casing Size & Depth: 2" PVC 25.5' T PVC | 0835 | 5.61 | .587 | 7.7 | 268 | 3.57 | .02 | 95 |
| Static Water Level: 9.37' | 0845 | 5.87 | .571 | 7.4 | 41 | 3.67 | .02 | 95 |
| One Casing Volume: 2.63 GAL | 0855 | 5.91 | .566 | 8.3 | 11 | 2.97 | .02 | 116 |
| Start Purge (hrs.): 0850 | 0905 | 5.95 | .569 | 8.9 | 3 | 4.06 | .02 | 102 |
| End Purge (hrs.): 0925 | 0915 | 5.94 | .570 | 9.0 | 1 | 3.10 | .02 | 103 |
| Total Purge Time (min.): 55 | | | | | | | | |
| Total Amount Purged (gal.): 4.4 | | | | | | | | |
| Monitor Reading: — | | | | | | | | |
| Purge Method: PERISTALTIC | | | | | | | | |
| Sample Method: " / BAILER | | | | | | | | |
| Depth Sampled: — | | | | | | | | |

| Sample Date & Time: | Sample Data | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.2.94 0935 | pH | S.C. | Temp. (°C) | Color & Turbidity | | | |
| Sampled By: RS/TC | 5.94 | .570 | 9.0 | 1 | 3.10 | .02 | 103 |

Signature(s): [signature]

Type of Sample
- [x] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab - Composite

Observations / Notes:

16.13 x .163 = 2.63 GAL/VOL

PUMP RATE = .3 L/MIN

.3 L = .0793 GAL

SAMPLED DUP ALSO OT GW 04-D

| | Analysis: | Preservative | | | | |
|---|---|---|---|---|---|---|
| | VOCs | HCL <4°C | PH<2 | | | |
| | SVOCs | <4°C | | | | |
| TOTAL | TAL METALS + BORON | $HNO_3$ <4°C | PH<2 | + HARDNESS | | |
| DISSOLVED | TAL METALS + BORON | $HNO_3$ <4°C | PH<2 | FILTERED | | |

# CHAIN OF CUSTODY RECORD

PROJECT NO.: 95114

SITE NAME: MSB NLON - OT5

SAMPLERS (SIGNATURE): S. Conte

| STATION NO. | DATE | TIME | COMP | GRAB | STATION LOCATION | NO. OF CONTAINERS | 40ml VOAs | TCL VOAs | 8oz GLASS | TCL SVOAs | 8oz GLASS | TAL INORGANICS | 1L PE | TCL BNAs | 1L PE | TAL INORGANICS | 16oz GLASS | 16oz GLASS, PEST, PCB, TOT. TALKNO | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRIP BLANK | 2/19/94 | 0001 | | ✓ | OT5-TB1 | 2 | 2 | | | | | | | | | | | | |
| OT MW-01 | -"- | 1047 | | ✓ | ~~OT-S001-0002 SJC~~ | ~~2~~ | | | ~~1~~ | ~~1~~ | | | | | | | | | DID NOT SEND THIS SAMPLE |
| OT MW-01 | " | 1052 | | ✓ | OT-S001-0204 | 2 | | | 1 | 1 | | | | | | | | | FROM OT5 MW01 |
| OT MW-02 | " | 1550 | | ✓ | OT-S002-0204 | 2 | | | 1 | 1 | | | | | | | | | FROM OT5 MW02 OILY ODOR - SLIGHT |
| OT MW-03 | 2/20/94 | 1230 | | ✓ | OT-S003-0204 | 2 | | | 1 | 1 | | | | | | | | | FROM OT5-MW03 |
| OT-5 | 2/20/94 | 1600 | | ✓ | OT-RB01 | 5 | 2 | | | | | 2 | | 1 | | | | | |
| WEAPON QTR | 2/20/94 | 1110 | | ✓ | 2WCTB8-1012.6 | 4 | | | 2 | 2 | | | | | | | 2 | | DO MS/MSD |
| WEAPON QTR | 2/20/94 | 1307 | | ✓ | 2WCMW39-1618 | 2 | | | 1 | 1 | | | | | | | | | |
| WEAPON QTR | 2/20/94 | 1321 | | ✓ | 2WCMW39-1618D | 2 | | | 1 | 1 | | | | | | | | | DUP |
| OT MW4 | 2/21/94 | 0831 | | ✓ | OT-S004-0204 | 2 | | | 1 | 1 | | | | | | | | | |

| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY(SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY(SIGNATURE): |
|---|---|---|---|---|---|
| S. Conte | | FED EX | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY(SIGNATURE): |
| | | | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED FOR LABORATORY BY (SIGNATURE): | DATE / TIME: | REMARKS: SENT TO SWLOK AB # 0857386121 | |

Order No. 70440 (0693)

# CHAIN OF CUSTODY RECORD

(OT-5)

PROJECT NO.: 9574

SITE NAME: NSB-NLON

SAMPLERS (SIGNATURE): [illegible]

| STATION NO. | DATE | TIME | COMP | GRAB | STATION LOCATION | NO. OF CONTAINERS | 1-40ml VOA TCL VOAs | 1-L Amber TCL BNAs | 1-L PG TCL Inorganics | 2-oz Glass TCL VOAs | 8-oz Glass TCL BNAs, Inorg. | Plastic 8" Core TCLP Organics | 2" Core TCLP Organics | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OT-5 | 2/22/94 | 0800 | | ✓ | OT-RB02 | 5 | 2 | 2 | 1 | | | | | |
| ~~—~~ | ~~—~~ | ~~—~~ | ~~—~~ | ~~—~~ | ~~OT-TB-38~~ | ~~2~~ | ~~2~~ | ~~—~~ | ~~—~~ | ~~—~~ | ~~—~~ | ~~—~~ | ~~—~~ | ~~NG~~ |
| TRIP BLANK | 2/22/94 | 0800 | | ✓ | OT5-TB2 | 2 | 2 | | | | | | | |
| OT-5 MW4 | 2/21/94 | 1100 | | ✓ | OT-C004-0506 | 1 | | | | | | 1 | | DO DUPLICATE ON CORE SAMPLE |
| OT-5 MW1 | 2/21/94 | 1224 | | ✓ | OT-C001-1616.3 | 1 | | | | | | | 1 | |
| OT-5 MW1 | 2/21/94 | 1224 | | ✓ | OT-C001-16.317 | 1 | | | | | | | 1 | |
| OT-5 MW1 | 2/21/94 | 1234 | | ✓ | OT-S001-1820 | 2 | | | | 1 | 1 | | | |
| OT-5 MW1 | 2/21/94 | 1234 | | ✓ | OT-S001-1820D | 2 | | | | 1 | 1 | | | |
| OT-5 MW1 | 2/21/94 | 1241 | | ✓ | OT-S001-2022 | 2 | | | | 1 | 1 | | | |

| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): |
|---|---|---|---|---|---|
| [illegible] | 2/22/94 1100 | FED.EX | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): |
| | | | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED FOR LABORATORY BY (SIGNATURE): | DATE / TIME: | REMARKS: SENT TO SOUTHWEST LABS TOK FED.EX AIRBILL # 0857386143 | |

Order No. 70440 (0693)

# CHAIN OF CUSTODY RECORD

OT5 + OBDANE 1 OF 3

PROJECT NO.: 9594

SITE NAME: NSB-NLON OT5

SAMPLERS (SIGNATURE): Timothy S Evan / SD Conti / JPF

| STATION NO. | DATE | TIME | COMP | GRAB | STATION LOCATION | NO. OF CONTAINERS | 40 ml VOAS VOCs | 1L Amber TCL BNAs | 1L Amber PEST/PCBs | 1-L PE TAL INORGANICS | 2 oz GLASS TCL VOAs | 8 oz GLASS TCL GNAs, INORGs | 2" CORE PCBs-TCLP INORG | 2 oz GLASS VOCs | 8 oz GLASS SVOCs & DESCRIPTIVES | 16 oz GLASS INORGANICS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OT 5 | 2/26/94 | 1300 | | ✓ | OT5-TB3 | 2 | 2 | | | | | | | | | | |
| OT 5 | " | 1330 | | ✓ | OT5-RB03 | 7 | 2 | 2 | 2 | 1 | | | | | | | |
| OT 5 | " | 1414 | | ✓ | OT-C002-1616.4 | 1 | | | | | | | 1 | | | | |
| " | " | " | | ✓ | OT-C002-16.417 | 1 | | | | | | | 1 | | | | |
| " | " | 1431 | | ✓ | OT-S002-1719 | 2 | | | | | 1 | 1 | | | | | |
| " | " | 1442 | | ✓ | OT-S002-1921 | 2 | | | | | 1 | 1 | | | | | |
| OBDANE | 3/1/94 | 2120 | | ✓ | 14TB2A-0002 | 2 | | | | | | | 1 | 1 | | | |
| " | " | 2122 | | ✓ | 14TB2A 0204 | 2 | | | | | | | 1 | 1 | | | |
| OB DANE | 2/28/94 | 1356 | | ✓ | 14 MW1S-0002 | 3 | | | | | | | 1 | 1 | 1 | | |
| " | " | 1358 | | ✓ | 14 MW1S-0204 | 3 | | | | | | | 1 | 1 | 1 | | |
| OT 5 | 3/1/94 | 09:00 | | ✓ | OT CO 03 1616.4 | 1 | | | | | | | 1 | | | | |
| " | " | 09:00 | | ✓ | OT CO 03 16.4 16.7 | 1 | | | | | | | 1 | | | | |
| " | " | 09:18 | | ✓ | OT SO 03 1719 | 2 | | | | | 1 | 1 | | | | | |
| " | " | 09:18 | | ✓ | OT SO 03 1719 D | 2 | | | | | 1 | 1 | | | | | |
| " | " | 09:24 | | ✓ | OT SO 03 1921 | 2 | | | | | 1 | 1 | | | | | |

| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): |
|---|---|---|---|---|---|
| SD Conti / Timothy S Evan | 3/1/94 1635 | FED EX | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): |
| | | | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED FOR LABORATORY BY (SIGNATURE): | DATE / TIME: | REMARKS: SENT TO SWLOK AB# 0857386165 | |

Order No. 70440 (0693)

2 OF 3

# CHAIN OF CUSTODY RECORD

PROJECT NO.: 9594

SITE NAME: NSB-NLON OT-5

SAMPLERS (SIGNATURE): [signature]

| STATION NO. | DATE | TIME | COMP | GRAB | STATION LOCATION | NO. OF CONTAINERS | 40 ml VOA VOCs | 1 L AMBER 5 VOC | 1 L AMBER REST | 1 L PE TAL INORGANICS | 1 L PE TAL INORGANICS | 1 500 ml PE TAL INORGANICS | 1 500 ml PE DISSOLVED TAL INORGANICS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OT-5 | 3/1/94 | 0930 | ✓ | ✓ | OT5-RB04 | 7 | 2 | 2 | 1 | 1 | 1 | | | |
| " | " | 1035 | ✓ | | OT-TW01 | 11 | 6 | 2 | 1 | 1 | 1 | | | COMPOSITE VOCs INTO ONE SAMPLE |
| " | " | 1040 | ✓ | | OT-TW02 | 11 | 6 | 2 | 1 | 1 | 1 | | | " |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | NOTE: TW-TANK WATER |
| | | | | | | | | | | | | | | |

| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): |
|---|---|---|---|---|---|
| [signature] | 3/1/94 1635 | FED EX | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): |
| | | | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED FOR LABORATORY BY (SIGNATURE): | DATE / TIME: | REMARKS: | |
| | | | | (11) 085738465 | |

Order No. 70440 (0693)

# CHAIN OF CUSTODY RECORD

PROJECT NO.: 9594

SITE NAME: NSB - NLON OT5

SAMPLERS (SIGNATURE): [signature]

| STATION NO. | DATE | TIME | COMP | GRAB | STATION LOCATION | NO. OF CONTAINERS | 2" Ø CORE | PCBS/TCLP INORGANICS | 8 OZ GLASS TCL VOAS | 8 OZ GLASS (PEST/PCBS TCL BNAS/INORGANICS | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OT 5 | 3/1/94 | 1618 | | ✓ | OT-C004-1616.3 | 1 | 1 | | | | | | | |
| " | " | " | | ✓ | OT-C004-16.316.75 | 1 | 1* | | | | | | | * DO DUP HERE, IF POSSIBLE |
| " | " | 1234 | | ✓ | OT-S004-1719 | 2 | | 1 | 1 | | | | | |
| " | " | 1245 | | ✓ | OT-S004-1921 | 2 | | 1 | 1 | | | | | |
| | | | | | ✓ | | | | | | | | | |
| | | | | | ✓ | | | | | | | | | |

| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY(SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY(SIGNATURE): |
|---|---|---|---|---|---|
| [signature] | 3/1/94 1635 | FED EX | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY (SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY(SIGNATURE): |
| | | | | | |
| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED FOR LABORATORY BY (SIGNATURE): | DATE / TIME: | REMARKS: SENT TO SWLOK AB# 0857386165 | |

Order No. 70440 (0693)

# CHAIN OF CUSTODY RECORD

(OT-5)

**PROJECT NO.:** 9594

**SITE NAME:** NSB-NION OT-5

**SAMPLERS (SIGNATURE):** [signature]

| STATION NO. | DATE | TIME | COMP | GRAB | STATION LOCATION | NO. OF CONTAINERS | 40 ml VOCs | 1 L AMBER SVOC | 1 L AMBER PEST | 1 L PL TOTAL METALS | 1 L PL TRANSUREANIC | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OT TMP 5 | 3-1-94 | 1530 | | ✓ | OT GW 01 | 7 | 2 | 2 | 1 | 1 | 1 | | |
| | 3-1-94 | 1640 | | ✓ | OT GW 03 | 7 | 2 | 2 | 1 | 1 | 1 | | |
| | 3-2-94 | 0735 | | ✓ | OT GW 04 | 7 | 2 | 2 | 1 | 1 | 1 | | |
| | 3-2-94 | 0735 | | ✓ | OT GW 04-D | 7 | 2 | 2 | 1 | 1 | 1 | | DUP |
| | 3-2-94 | 1140 | | ✓ | OT GW 02 | 7 | 2 | 2 | 1 | 1 | 1 | | |
| | | | | | ~~OT 5 RBG~~ 15 | | | | | | | | |
| | 3-1-94 | 1230 | | ✓ | OT5 TB 4 | 2 | 2 | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY(SIGNATURE): | RELINQUISHED BY (SIGNATURE): | DATE / TIME: | RECEIVED BY(SIGNATURE): |
|---|---|---|---|---|---|
| [signature] | 3-2-94 1140 | FED EX | | | |
| **RELINQUISHED BY (SIGNATURE):** | **DATE / TIME:** | **RECEIVED BY (SIGNATURE):** | **RELINQUISHED BY (SIGNATURE):** | **DATE / TIME:** | **RECEIVED BY(SIGNATURE):** |
| | | | | | |
| **RELINQUISHED BY (SIGNATURE):** | **DATE / TIME:** | **RECEIVED FOR LABORATORY BY (SIGNATURE):** | **DATE / TIME:** | **REMARKS:** FED EX AIR BILL # 0357386283 | |
| | | | 3-2-94 1140 | | |

Order No. 70440 (0693)

# APPENDIX B

## BORING LOGS AND WELL CONSTRUCTION FORMS

**BORING LOG** **HALLIBURTON NUS**

PROJECT: NSB - NLON BORING NO.: OT5 - MW-01
PROJECT NO.: 9594 DATE: 2-19-94 DRILLER: EAST COAST THOMAS
ELEVATION: FIELD GEOLOGIST: J. R. FERGUSON
WATER LEVEL DATA:
(Date, Time & Conditions) 2-19-94 50° PARTLY SUNNY

| SAMPLE NO. & TYPE OR RQD | DEPTH (Ft.) OR RUN NO. | BLOWS 6" OR RQD (%) | SAMPLE RECOVERY SAMPLE LENGTH | LITHOLOGY CHANGE (Depth/Ft.) | MATERIAL DESCRIPTION* SOIL DENSITY CONSISTENCY OR ROCK HARDNESS | COLOR | MATERIAL CLASSIFICATION | ROCK BR. OR USCS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| S-1 | 0-2 | 34 / 29 | 1.4 | | Dense | Brown | [illegible] VF-F SAND TRACE | FILL | HNU-0 10:48 |
| | | 4 / 2 | 2.0 | | | BROWN | F-M GRAVEL | FILL | OT50 01 0002 FROZEN |
| S-2 | 2-4 | 1 / 1 | .8 | | V LOOSE | BROWN | | FILL | HNU-0 10:52 |
| | | 1 / 2 | 2.0 | | | BROWN | | FILL | OT5001 0204 MOIST |
| S-3 | 4-5 | 20 / 17 | | | M Dense | BROWN | [illegible] and F-M GRAVEL | FILL | HNU-0 10:57 |
| | | | | | | | CONCRETE - TOP OF OT-5 | | |
| | | | | | | | CORE FELL TO BOTTOM OF TANK | | 6½" HSA TO 5.0' |
| | | | | | | | | | |
| | | | | | | | TOP OF TANK = 6.17' | | |
| | 9-10 | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | 14-15 | | | | | | | | |
| | | | | | | | BOTTOM OF TANK = 16.5' | | |
| | | | | | | | 4½" ID CASING PRESSURE GROUTED | | CONCRETE CORE 16.0' |
| | | | | | | | TO 17.0' | | 17.0' |
| S-4 | 18'-20 | 20 / 33 | 1.5 | | V Dense | GRAY | Sandy (F-C) Gravel and | Sand/Gravel | HNU-0 WET |
| | | 50 / 52 | 2.0 | | - | GRAY | Gravelly F-C Sand | Sand/Gravel | OT-50-01-1820 12:34 |
| S-5 | 20-22 | 28 / 41 | 1.2 | | HARD | TAN | MICACEOUS SANDY (V.F.) SILT | ML | HNU-0 MOIST |
| | | 36 / 24 | 2.0 | | | TAN | FE STAINING | ML | OT5001 2022 12:41 |
| S-6 | 22-24 | 7 / 14 | 1.1 | | V. STIFF | TAN | SILTY VF-Fine Sand and | Sand/Silt | HNU-0 14:00 |
| | | 16 / 17 | 2.0 | | | TAN | Sandy (VF) SILT | Sand/Silt | MOIST |
| | | | | | | | BOTTOM OF BORING = 24.0' | | |

REMARKS • Had to telescope casing inside 4 7/8" [illegible] at 22'-24'
• INSTALLED TEMPORARY MONITORING WELL — SCREEN FROM 17'-22'

BORING OT5 MW 01

PAGE 1 OF 1

* See Legend on Back

HALLIBURTON NUS
Environmental Corporation

* EL ARE APPROX BASED ON GZA DRAWING (TOPO PLAN)

BORING NO: OT-MW01

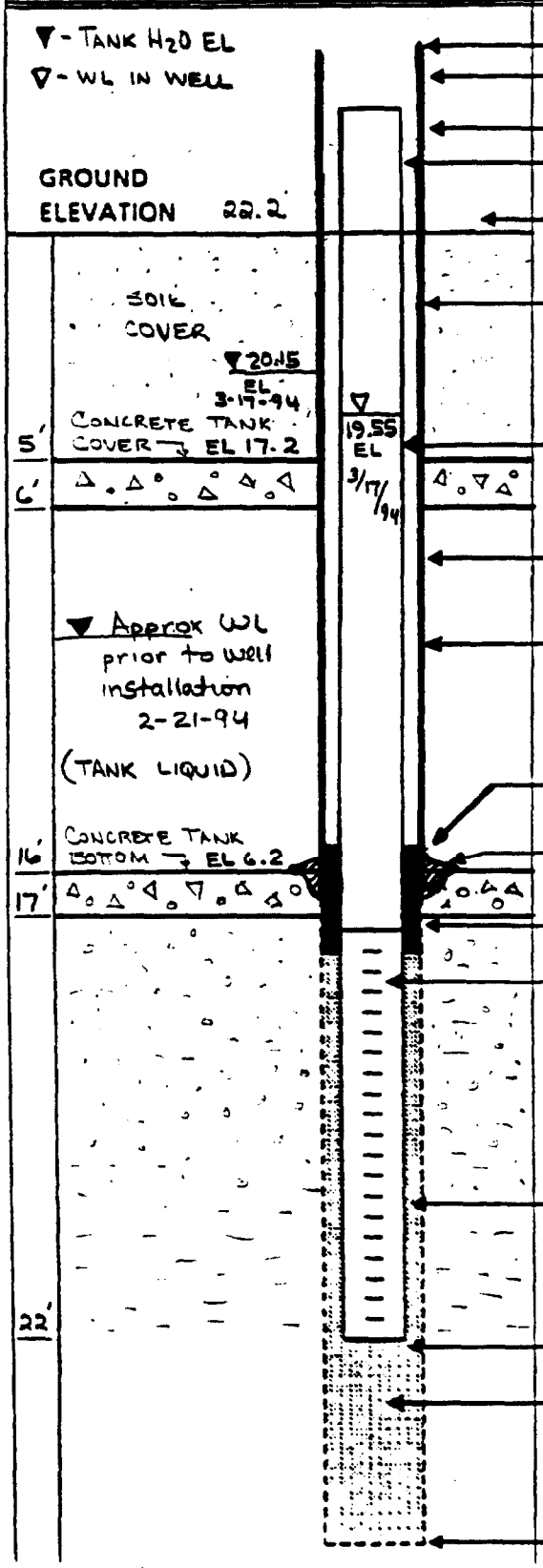
# MONITORING WELL SHEET

PROJECT NSB NLON
PROJECT NO. 9594
ELEVATION 22.2*
FIELD GEOLOGIST JR FERGUSON / CONTI

LOCATION OT-5
BORING OT-MW01
DATE 2-21-94

WL 5.72' TPV 3/17/94

DRILLER EAST COAST
DRILLING METHOD HSA / CORING
DEVELOPMENT METHOD PUMP




ELEVATION OF TOP OF STEEL CASING: 25.67
ELEVATION OF TOP OF RISER PIPE: 25.27
STICK - UP TOP OF STEEL CASING: 3.47
STICK - UP RISER PIPE: 3.07
TYPE OF SURFACE SEAL: NA
I.D. OF STEEL CASING: 4"
TYPE OF STEEL CASING: FLUSH JOINT GROUTED 6" INTO TANK BOTTOM.
RISER PIPE I.D. 2" - SCH 40
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 6"
TYPE OF BACKFILL: NA
TYPE OF SEAL: BENTONITE PELLETS
CEMENT / BENTONITE GROUT
ELEVATION / DEPTH TOP OF SCREEN: 5.2 /17'
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 10 SL X 5'
I.D. OF SCREEN: 2" SCH 40
TYPE OF SAND PACK: NATURAL BACKFILL
ELEVATION / DEPTH BOTTOM OF SCREEN: 0.2 /22'
ELEVATION / DEPTH BOTTOM OF SAND PACK: 0.2 /22'
TYPE OF BACKFILL BELOW OBSERVATION WELL: NA
ELEVATION / DEPTH OF HOLE: 0.2 /22'

**BORING LOG** — **HALLIBURTON NUS**

PROJECT: NSB - NLON
BORING NO.: OT MW02
PROJECT NO.: 9594
DATE: 2-19-94
DRILLER: EAST COAST THOMAS
ELEVATION:
FIELD GEOLOGIST: J.R. FERGUSON
WATER LEVEL DATA:
(Date, Time & Conditions) 2-19-94 50°

| SAMPLE NO. & TYPE OR RQD | DEPTH (FL) OR RUN NO. | BLOWS 6" OR RQD (%) | SAMPLE RECOVERY SAMPLE LENGTH | LITHOLOGY CHANGE (Depth FL) | SOIL DENSITY CONSISTENCY OR ROCK HARDNESS | COLOR | MATERIAL CLASSIFICATION | ROCK BR. OR USCS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| S-1 | 0-2 | 21 / 15 | 1.6 | | M. Dense | Brown | Silty VF-Fine Sand Trace | Fill | HNU Frozen 15:47 |
| | | 13 / 38 | 2.0 | | | Brown | F-M Gravel | Fill | OT SO 02 0002 |
| S-2 | 2-4 | 25 / 25 | 1.5 | | V. Dense | Brown | | Fill | HNU Moist 15:50 |
| | | 23 / 25 | 2.0 | | | Brown | (Oily Odor) | Fill | OT SO 02 0204 |
| S-3 | 4-6 | 10 / 4 | .9 | | Loose | Brown | | Fill | HNU- [illegible] |
| | | 2 / 1 | 2.0 | | | Brown | | Fill | |
| | | | | | | | Top of Tank = 6.0' (12" Thick) | | |
| | | | | | | | Pressure Grouted 4 7/8" Steel | | |
| | | | | | | | Casing into Bas of Tank | | |
| | 9-10 | | | | | | At 16.5-16.75' | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | Bottom of Tank = 16.0' | | |
| | 14-15 | | | | | | | | |
| | | | | | | | | | |
| Core | 16-17 | | | | | | | | |
| S-4 | 17-19 | 15 / 60 | 1.4 | | V. Dense | Gray | Sandy Fine-Medium Gravel and | SP/GP | HNU-0 Wet |
| | | 50 / 60 | 2.0 | | | Gray | Gravelly Fine-Coarse Sand | SP/GP | OT SO 02 1719 14:31 |
| S-5 | 19-21 | 91 / 47 | 1.2 | | V. Dense | Gray | | SP/GP | HNU-0 Wet |
| | | 35 / 26 | 2.0 | | | Brown | Silty VF-Fine Sand (Micaceous) | SM | OT SO 02 1921 14:42 |
| S-6 | 21-23 | 8 / 13 | 1.3 | | M. Dense | Brown | Micaceous, Silty, Very Fine to | SM | HNU-0 Wet |
| | | 13 / 13 | 2.0 | | | Brown | Fine Sand | SM | 15:31 |
| | | | | | | | Bottom of Boring = 23.0' | | |

REMARKS Set 4 7/8" Ø Steel Casing To 16.5' Screen Hg Size 16.0-17.0
Sampled 3" Ø Sampler to 24'
Set Temporary 2" Ø PVC Well Screen 17'-22'

BORING OTMW02

PAGE 1 OF 1

* See Legend on Back

* EL ARE APPROX BASED ON GZA DRAWING (TOPO PLAN)

BORING NO: OT-MW02

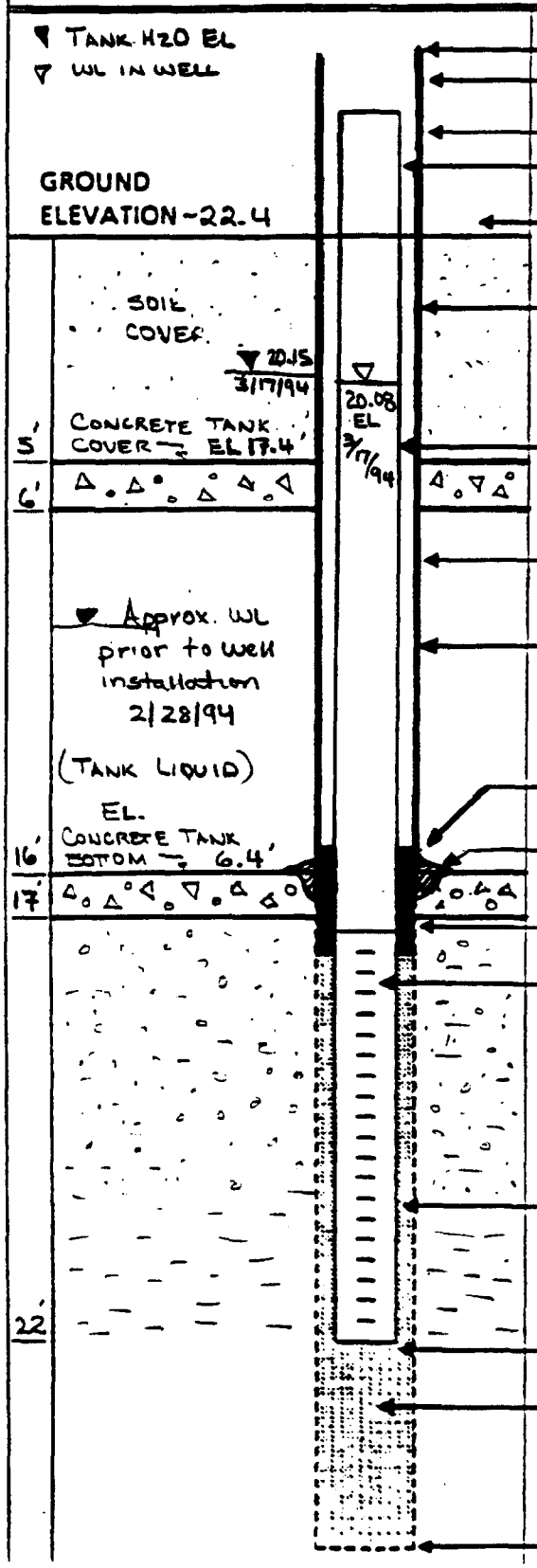
HALLIBURTON NUS
Environmental Corporation

# MONITORING WELL SHEET

PROJECT NSB NLON
PROJECT NO. 9594
ELEVATION ~22.4*
FIELD GEOLOGIST JR FERGUSON / CONTI

LOCATION OT-5
BORING OT-MW02
DATE 2-28-94
WL = 5.17 TPVC 3-17-94

DRILLER EAST COAST
DRILLING METHOD HSA / CORING
DEVELOPMENT METHOD PUMP




ELEVATION OF TOP OF STEEL CASING: 25.85
ELEVATION OF TOP OF RISER PIPE: 25.25
STICK - UP TOP OF STEEL CASING: 3.45
STICK - UP RISER PIPE: 2.85
TYPE OF SURFACE SEAL: NA
I.D. OF STEEL CASING: 4
TYPE OF STEEL CASING: FLUSH JOINT
CAS. GROUTED 6" INTO TANK BOTTOM
RISER PIPE I.D. 2" SCH 40
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 6"
TYPE OF BACKFILL: NA
TYPE OF SEAL: BENTONITE PELLETS
CEMENT / BENTONITE GROUT
ELEVATION / DEPTH TOP OF SCREEN: 5.4 / 17'
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 10 SL x 5'
I.D. OF SCREEN: 2" SCH 40
TYPE OF SAND PACK: NATURAL BACKFILL
ELEVATION / DEPTH BOTTOM OF SCREEN: 0.4 / 22'
ELEVATION / DEPTH BOTTOM OF SAND PACK: 0.4 / 22'
TYPE OF BACKFILL BELOW OBSERVATION WELL: NA
ELEVATION / DEPTH OF HOLE: 0.4 / 22'

**BORING LOG** **HALLIBURTON NUS**

PROJECT: NSB - NLON BORING NO.: OT MW 03
PROJECT NO.: 9594 DATE: 2-20-94 DRILLER: EAST COAST THOMAS
ELEVATION: FIELD GEOLOGIST: J. R. FERGUSON
WATER LEVEL DATA :
(Date, Time & Conditions) 2-20-94 CLEAR 50°

| SAMPLE NO. & TYPE OR RQD | DEPTH (Ft.) OR RUN NO. | BLOWS 6" OR RQD (%) | SAMPLE RECOVERY SAMPLE LENGTH | LITHOLOGY CHANGE (Depth/Ft.) | MATERIAL DESCRIPTION* SOIL DENSITY-CONSISTENCY OR ROCK HARDNESS | COLOR | MATERIAL CLASSIFICATION | ROCK BR. OR USCS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| S-1 | 0-2 | 11 7 | 1.5 | | M. Dense | Brown | Silty VF-Fine Sand trace | Fill | HNU-0 12:25 |
| | | 9 11 | 2.0 | | | Brown | to Little F-M Gravel | Fill | moist |
| S-2 | 2-4 | 15 6 | .8 | | Loose | Brown | | Fill | HNU-0 12:30 |
| | | 3 3 | 2.0 | | | Brown | | Fill | moist-wet |
| | 5 | | | | | | | | |
| | | | | 0 | | | Concrete UST cover 5'-6' | | |
| | 10 | | | | | | | | |
| | | | | | | | Pressure Grouted 4 7/8" | | |
| | | | | | | | Steel Casing in to 16.5' | | |
| | 15 | | | | | | | | |
| | 16 | | | | | | Base of UST 16' | | |
| OT CO 03 | 16-16.7 | | | | | | Base of Concrete 16.8 | | OT CO 03 16 16.4 OT CO 03 16.4 16.7 |
| S-3 | 17-19 | 20 38 | .8 | | V. Dense | Grey | Gravelly Medium-Coarse Sand+ | SP/GP | HNU-0 09:18 |
| | | 22 20 | 2.0 | | | Gray | Sandy Fine-Medium Gravel | SP/GP | OT SO 031719/D wet |
| S-4 | 19-21 | 50 45 | .8 | | V Dense | Brown | Silty Very Fine-Fine Sand | SM | HNU-0 09:24 |
| | | 47 26 | 2.0 | | | Brown | | SM | OT SO 031921 wet |
| S-5 | 21-23 | 10 8 | 1.4 | | M. Dense | Brown | Micaceous Silty Very Fine- | SM | HNU-0 09:59 |
| | | 7 6 | 2.0 | | | Brown | Fine Sand | SM | wet |
| | | | | | | | Bottom of Boring = 23.0' | | |

REMARKS 2-3" ø Sampler 1-2" Sample .8 of HQ Core Set 3" Casing To 19' To Acquire 21'-23' sample

BORING OTMW03

PAGE 1 OF 1

* See Legend on Back

* EL ARE APPROX. BASED ON GZA DRAWING (TOPO PLAN)

BORING NO: OT-MW03

**HALLIBURTON NUS**
*Environmental Corporation*

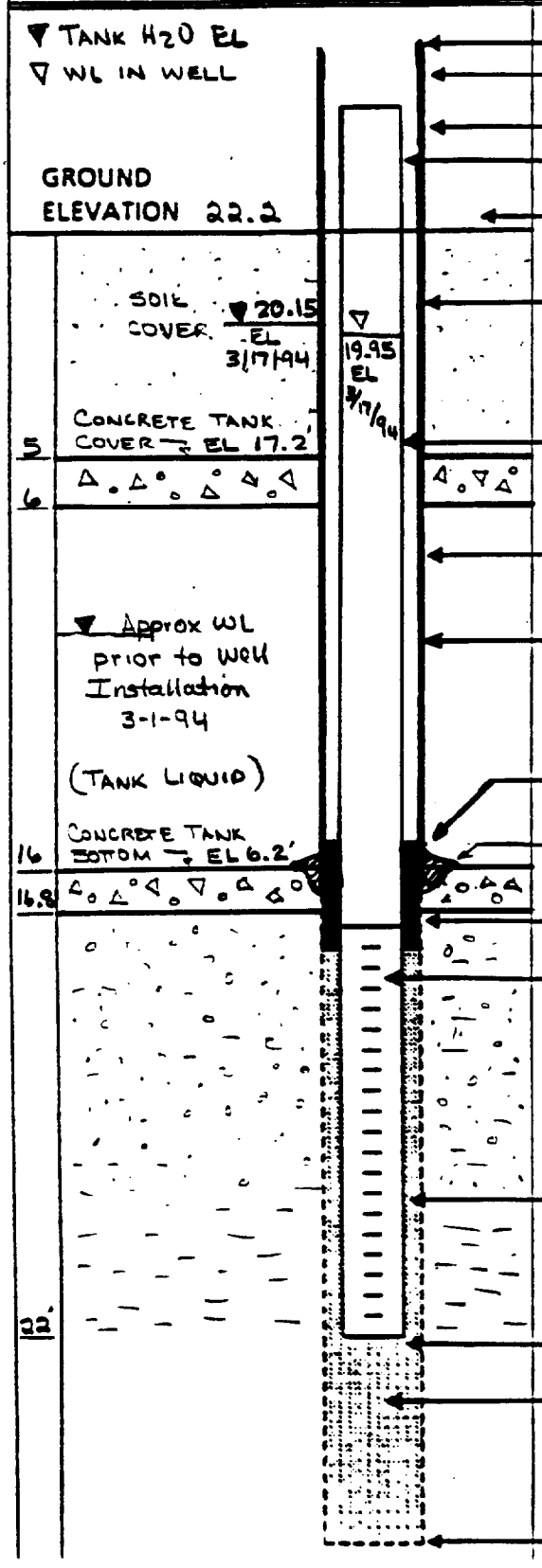
# MONITORING WELL SHEET

PROJECT: NSB NLON
PROJECT NO.: 9594
ELEVATION: ~22.2 *
FIELD GEOLOGIST: JR FERGUSON / CONTI

LOCATION: OT-5
BORING: OT-MW03
DATE: 3-1-94

WL 5.35' TPVC 3-17-94

DRILLER: EAST COAST
DRILLING METHOD: HSA / CORING
DEVELOPMENT METHOD: PUMP




ELEVATION OF TOP OF STEEL CASING: 25.95
ELEVATION OF TOP OF RISER PIPE: 25.30

STICK-UP TOP OF STEEL CASING: 3.75
STICK-UP RISER PIPE: 3.10

TYPE OF SURFACE SEAL: NA

I.D. OF STEEL CASING: 4"
TYPE OF " CASING: FLUSH JOINT
CAS GROUTED = 5" INTO TANK BOTTOM

RISER PIPE I.D. 2" SCH 40
TYPE OF RISER PIPE: PVC

BOREHOLE DIAMETER: 6"

TYPE OF BACKFILL: NA

TYPE OF SEAL: BENTONITE PELLETS

CEMENT / BENTONITE GROUT

ELEVATION / DEPTH TOP OF SCREEN: 5.2 / 17'

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 10 SL x 5'

I.D. OF SCREEN: 2" SCH 40

TYPE OF SAND PACK: NATURAL BACKFILL

ELEVATION / DEPTH BOTTOM OF SCREEN: 0.2 / 22'

ELEVATION / DEPTH BOTTOM OF SAND PACK: 0.2 / 22'

TYPE OF BACKFILL BELOW OBSERVATION WELL: NA

ELEVATION / DEPTH OF HOLE: 0.2 / 22'

**BORING LOG** **HALLIBURTON NUS**

PROJECT: NSB-NLON BORING NO.: OT MW 04
PROJECT NO.: 9594 DATE: 2-21-94 DRILLER: EAST COAST THOMAS
ELEVATION: FIELD GEOLOGIST: J.R. FERGUSON
WATER LEVEL DATA:
(Date, Time & Conditions) 2-21-94 50°

| SAMPLE NO. & TYPE OR RQD | DEPTH (Ft.) OR RUN NO. | BLOWS 6" OR RQD (%) | SAMPLE RECOVERY SAMPLE LENGTH | LITHOLOGY CHANGE (Depth, Ft.) | MATERIAL DESCRIPTION* SOIL DENSITY CONSISTENCY OR ROCK HARDNESS | COLOR | MATERIAL CLASSIFICATION | ROCK BR. OR USCS | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| S-1 | 0-2 | 5 / 7 | | | M. Dense | Gray-Brown | Sandy Very Fine - Fine Sand | Fill | HNU 08:22 |
| | | 7 / 6 | 2.0 | | | Gray-Brown | Sandy gravel | Fill | OT-SO-04-0002 wet-moist |
| S-2 | 2-4 | 9 / 14 | | | M. Dense | Gray Brown | | Fill | OT-SO-04-0204 HNU |
| | | 15 / 17 | 2.0 | | | Gray-Brown | | Fill | |
| | | | | | | | | | |
| | 6 | | | | | | CONCRETE UST TANK TOP 5'-6' | | CORE RECOVERED |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | 10 | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | SET 4 7/8" STEEL CASING | | |
| | | | | | | | TO 16.5' | | |
| | 15 | | | | | | | | |
| | 16 | | | | | | BASE OF CONCRETE UST 16.0' | | |
| CORE | 16-17.0 | | | | | | | | OT CO 04 1616.3 OT CO 04 16.3 16.75 |
| S-3 | 17-19 | 11 / 37 | .75 | | VERY DENSE | GRAY | GRAVELLY MEDIUM-COARSE SAND and | SP/SP | HNU-0 12:39 |
| | | 40 / 98 | 2.0 | | | GRAY | Sandy Fine-medium Gravel | SP/SP | OT SO 04 1719 WET |
| S-4 | 19-21 | 47 / 41 | 1.4 | | VERY DENSE | BROWN | SILTY, MICACEOUS, VERY Fine- | SM | HNU-0 12:45 |
| | | 32 / 30 | 2.0 | | | BROWN | Fine Sand | SM | OT SO 04 1921 WET |
| S-5 | 21-23 | 38 / 34 | 1.5 | | V. Dense | Brown | | SM | HNU-0 13:25 |
| | | 57 / 34 | 2.0 | | | Brown | | SM | wet |
| | | | | | | | BOTTOM OF BORING: 23.0' | | |
| | | | | | | | | | |

REMARKS 4 3" Ø SPLIT BARREL SAMPLES 1-2" Ø SPLIT BARREL SAMPLER
DRILLERS INSTALL 3" CASING FOR DRIVE AND WASH SAMPLING from 21'-23'

BORING OT MW04

PAGE 1 OF 1

* See Legend on Back

* EL ARE APPROX - BASED ON GZA DRAWING (TOPO PLAN)

BORING NO: OT-MW04

**HALLIBURTON NUS**
*Environmental Corporation*

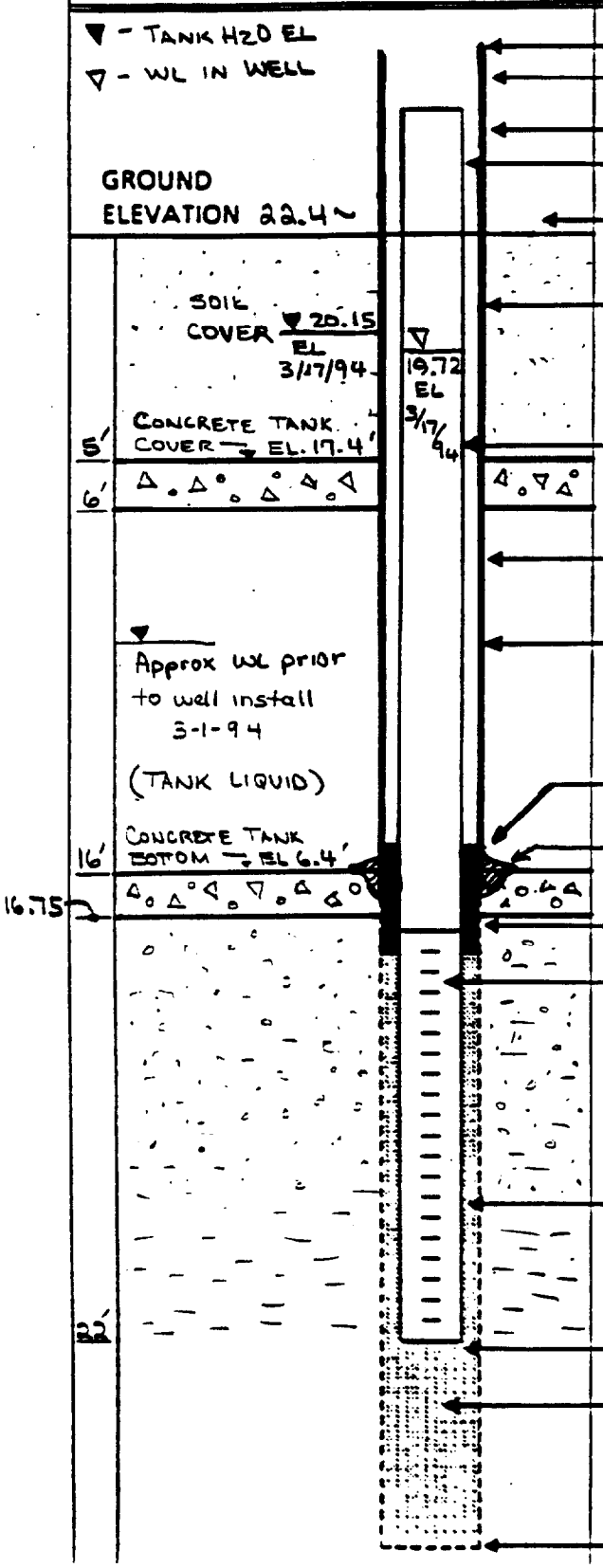
# MONITORING WELL SHEET

PROJECT: NSB NLON
PROJECT NO.: 9594
ELEVATION: 22.4 ~ *
FIELD GEOLOGIST: JR FERGUSON / CONTI

LOCATION: OT-5
BORING: OT-MW04
DATE: 3-1-94

WL = 5.91' TPVC 3/17/94

DRILLER: EAST COAST
DRILLING METHOD: HSA / CORING
DEVELOPMENT METHOD: PUMP




ELEVATION OF TOP OF STEEL CASING: 25.90
ELEVATION OF TOP OF RISER PIPE: 25.63

STICK-UP TOP OF STEEL CASING: 3.50
STICK-UP RISER PIPE: 3.23

TYPE OF SURFACE SEAL: NA

I.D. OF STEEL CASING: 4
TYPE OF STEEL CASING: FLUSH JOINT CAS
GROUTED ≈ 4" INTO TANK BOTTOM

RISER PIPE I.D.: 2" SCH 40
TYPE OF RISER PIPE: PVC

BOREHOLE DIAMETER: 6"

TYPE OF BACKFILL: NA

TYPE OF SEAL: BENTONITE PELLETS

CEMENT / BENTONITE GROUT

ELEVATION / DEPTH TOP OF SCREEN: 5.4 /17'

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 10 SL x 5'

I.D. OF SCREEN: 2" SCH 40

TYPE OF SAND PACK: NATURAL BACKFILL

ELEVATION / DEPTH BOTTOM OF SCREEN: 0.4 /22'

ELEVATION / DEPTH BOTTOM OF SAND PACK: 0.4 /22'

TYPE OF BACKFILL BELOW OBSERVATION WELL: NA

ELEVATION / DEPTH OF HOLE: 0.4 /22'

# APPENDIX C

# ANALYTICAL RESULTS

## Analytical Data Base Key:

- B - Data qualifier; compound/analyte was detected in an associated laboratory and/or a field quality control blank. The result is considered a false positive result and attributed to contamination.
- J - Data qualifier; compound/analyte was positively detected at a concentration less than the Contract Required Detection Limit (CRDL).
- U - Data qualifier; compound/analyte was not detected at the value noted.
- Note: A bolded analytical result indicates that the reported concentration is a positive detection.

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-TW01 | | OT-TW02 | |
|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.04 | | 17743.05 | |
| TCL VOLATILES TANK WATERS (UG/L) | CRQL | | | | |
| CHLOROMETHANE | 10 | | | 10 | U |
| BROMOMETHANE | 10 | | | 10 | U |
| VINYL CHLORIDE | 10 | | | | U |
| CHLOROETHANE | 10 | | | | |
| METHYLENE CHLORIDE | 10 | | | | |
| ACETONE | 10 | | | | |
| CARBON DISULFIDE | 10 | | | | |
| 1,1-DICHLOROETHENE | 10 | | | | |
| 1,1-DICHLOROETHANE | 10 | | | | J |
| 1,2-DICHLOROETHENE (TOTAL) | 10 | | | | U |
| CHLOROFORM | 10 | 10 | | | U |
| 1,2-DICHLOROETHANE | 10 | 10 | U | | U |
| 2-BUTANONE | 10 | 10 | U | J | U |
| 1,1,1-TRICHLOROETHANE | 10 | 10 | U | 10 | U |
| CARBON TETRACHLORIDE | 10 | 10 | U | 10 | U |
| BROMODICHLOROMETHANE | 10 | 10 | U | 10 | U |
| 1,2-DICHLOROPROPANE | 10 | 10 | U | 10 | U |
| CIS-1,3-DICHLOROPROPENE | 10 | 10 | U | 10 | U |
| TRICHLOROETHENE | 10 | 10 | U | 10 | U |
| DIBROMOCHLOROMETHANE | 10 | 10 | U | 10 | U |
| 1,1,2-TRICHLOROETHANE | 10 | 10 | U | 10 | U |
| BENZENE | 10 | 10 | U | 10 | U |
| TRANS-1,3-DICHLOROPROPENE | 10 | 10 | U | 10 | U |
| BROMOFORM | 10 | 10 | U | 10 | U |
| 4-METHYL-2-PENTANONE | 10 | 10 | U | 10 | U |
| 2-HEXANONE | 10 | 10 | U | 10 | U |
| TETRACHLOROETHENE | 10 | 10 | U | 10 | U |
| 1,1,2,2-TETRACHLOROETHANE | 10 | 10 | U | 10 | U |
| TOLUENE | 10 | 10 | U | 10 | U |
| CHLOROBENZENE | 10 | 10 | U | 10 | U |
| ETHYLBENZENE | 10 | 10 | U | 10 | U |
| STYRENE | 10 | 10 | U | 10 | U |
| XYLENE (TOTAL) | 10 | 10 | U | 10 | U |
| VINYL ACETATE | 10 | 10 | U | 10 | U |

NOT RELEVENT

SITE: CTO 129, NSB–NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT–TW01 | | OT–TW02 | |
|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.04 | | 17743.05 | |
| TCL SEMIVOLATILES TANK WATERS (UG/L) | CRQL | | | | |
| PHENOL | 10 | 10 | U | 100 | U |
| BIS(2–CHLOROETHYL)ETHER | 10 | 10 | U | 100 | U |
| 2–CHLOROPHENOL | 10 | 10 | U | 100 | U |
| 1,3–DICHLOROBENZENE | 10 | 10 | U | 100 | U |
| 1,4–DICHLOROBENZENE | 10 | 0.6 | J | 100 | U |
| 1,2–DICHLOROBENZENE | 10 | 10 | U | 100 | U |
| 2–METHYLPHENOL | 10 | 0.8 | J | 100 | U |
| BIS(2–CHLOROISOPROPYL)ETHER | 10 | 10 | U | 100 | U |
| 4–METHYLPHENOL | 10 | 0.5 | J | 180 | |
| N–NITROSO–DI–N–PROPYLAMINE | 10 | 10 | U | 100 | U |
| HEXACHLOROETHANE | 10 | 10 | U | 100 | U |
| NITROBENZENE | 10 | 10 | U | 100 | U |
| ISOPHORONE | 10 | 10 | U | 100 | U |
| 2–NITROPHENOL | 10 | 10 | U | 100 | U |
| 2,4–DIMETHYLPHENOL | 10 | 2 | J | 8 | J |
| 2,4–DICHLOROPHENOL | 10 | 10 | U | 100 | U |
| 1,2,4–TRICHLOROBENZENE | 10 | 13 | | 14 | J |
| NAPHTHALENE | 10 | 10 | U | 170 | |
| 4–CHLOROANILINE | 10 | 10 | U | 100 | U |
| BIS(2–CHLOROETHOXY)METHANE | 10 | 10 | U | 100 | U |
| HEXACHLOROBUTADIENE | 10 | 10 | U | 100 | U |
| 4–CHLORO–3–METHYLPHENOL | 10 | 10 | U | 100 | U |
| 2–METHYLNAPHTHALENE | 10 | 10 | U | 390 | |
| HEXACHLOROCYCLOPENTADIENE | 10 | 10 | U | 100 | U |
| 2,4,6–TRICHLOROPHENOL | 10 | 10 | U | 100 | U |
| 2,4,5–TRICHLOROPHENOL | 25 | 25 | U | 250 | U |
| 2–CHLORONAPHTHALENE | 10 | 10 | U | 100 | U |
| 2–NITROANILINE | 25 | 25 | U | 250 | U |
| DIMETHYL PHTHALATE | 10 | 10 | U | 100 | U |
| ACENAPHTHYLENE | 10 | 10 | U | 100 | U |
| 2,6–DINITROTOLUENE | 10 | 10 | U | 100 | U |
| 3–NITROANILINE | 25 | 25 | U | 250 | U |
| ACENAPHTHENE | 10 | 0.6 | J | 14 | J |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-TW01 | | OT-TW02 | |
|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.04 | | 17743.05 | |
| TCL SEMIVOLATILES TANK WATERS (UG/L) | CRQL | | | | |
| 2,4-DINITROPHENOL | 25 | 25 | U | 250 | U |
| 4-NITROPHENOL | 25 | 25 | U | 250 | U |
| DIBENZOFURAN | 10 | 10 | U | 12 | J |
| 2,4-DINITROTOLUENE | 10 | 10 | U | 100 | U |
| DIETHYLPHTHALATE | 10 | 10 | U | 100 | U |
| 4-CHLOROPHENYL-PHENYLETHER | 10 | 10 | U | 100 | U |
| FLUORENE | 10 | 0.6 | J | 35 | J |
| 4-NITROANILINE | 25 | 25 | U | 250 | U |
| 4,6-DINITRO-2-METHYLPHENOL | 25 | 25 | U | 250 | U |
| N-NITROSODIPHENYLAMIN(1) | 10 | 10 | U | 100 | U |
| 4-BROMOPHENYL-PHENYLETHER | 10 | 10 | U | 100 | U |
| HEXACHLOROBENZENE | 10 | 10 | U | 100 | U |
| PENTACHLOROPHENOL | 25 | 25 | U | 250 | U |
| PHENANTHRENE | 10 | 10 | U | 59 | J |
| ANTHRACENE | 10 | 10 | U | 100 | U |
| CARBAZOLE | 10 | 10 | U | 100 | U |
| DI-N-BUTYLPHTHALATE | 10 | 10 | U | 100 | U |
| FLUORANTHENE | 10 | 10 | U | 100 | U |
| PYRENE | 10 | 10 | U | 13 | J |
| BUTYLBENZYLPHTHALATE | 10 | 10 | U | 100 | U |
| 3,3'-DICHLOROBENZIDINE | 10 | 10 | U | 100 | U |
| BENZO(A)ANTHRACENE | 10 | 10 | U | 7 | J |
| CHRYSENE | 10 | 10 | U | 10 | J |
| BIS(2-ETHYLHEXYL)PHTHALATE | 10 | 1 | JB | 24 | JB |
| DI-N-OCTYL PHTHALATE | 10 | 10 | U | 100 | U |
| BENZO(B)FLUORANTHENE | 10 | 10 | U | 100 | U |
| BENZO(K)FLUORANTHENE | 10 | 10 | U | 100 | U |
| BENZO(A)PYRENE | 10 | 10 | U | 100 | U |
| INDENO(1,2,3-CD)PYRENE | 10 | 0.5 | JB | 100 | U |
| DIBENZ(A,H)ANTHRACENE | 10 | 10 | U | 100 | U |
| BENZO(G,H,I)PERYLENE | 10 | 0.6 | JB | 100 | U |
| BENZYL ALCOHOL | 10 | 10 | U | 100 | U |
| BENZOIC ACID | 50 | 50 | U | 500 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-TW01 | | OT-TW02 | |
|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.04 | | 17743.05 | |
| TCL PESTICIDES/PCB TANK WATERS (UG/L) | CRQL | | | | |
| ALPHA-BHC | 0.05 | 0.050 | U | 0.050 | U |
| BETA-BHC | 0.05 | 0.050 | U | 0.050 | U |
| DELTA-BHC | 0.05 | 0.050 | U | 0.050 | U |
| GAMMA-BHC (LINDANE) | 0.05 | 0.050 | U | 0.050 | U |
| HEPTACHLOR | 0.05 | 0.050 | U | 0.050 | U |
| ALDRIN | 0.05 | 0.050 | U | 0.050 | U |
| HEPTACHLOR EPOXIDE | 0.05 | 0.050 | U | 0.050 | U |
| ENDOSULFAN I | 0.05 | 0.050 | U | 0.050 | U |
| DIELDRIN | 0.1 | 0.10 | U | 0.10 | U |
| 4,4'-DDE | 0.1 | 0.27 | | 0.10 | U |
| ENDRIN | 0.1 | 0.10 | U | 0.10 | U |
| ENDOSULFAN II | 0.1 | 0.10 | U | 0.10 | U |
| 4,4'-DDD | 0.1 | 0.14 | | 0.10 | U |
| ENDOSULFAN SULFATE | 0.1 | 0.10 | U | 0.10 | U |
| 4,4'-DDT | 0.1 | 1.1 | | 0.26 | |
| METHOXYCHLOR | 0.5 | 0.50 | U | 0.50 | U |
| ENDRIN KETONE | 0.1 | 0.10 | U | 0.10 | U |
| ENDRIN ALDEHYDE | 0.1 | 0.10 | U | 0.12 | |
| ALPHA-CHLORDANE | 0.05 | 0.050 | U | 0.050 | U |
| GAMMA-CHLORDANE | 0.05 | 0.051 | | 0.050 | U |
| TOXAPHENE | 5 | 5.0 | U | 5.0 | U |
| AROCLOR-1016 | 1 | 1.0 | U | 1.0 | U |
| AROCLOR-1221 | 2 | 2.0 | U | 2.0 | U |
| AROCLOR-1232 | 1 | 1.0 | U | 1.0 | U |
| AROCLOR-1242 | 1 | 1.0 | U | 1.0 | U |
| AROCLOR-1248 | 1 | 1.0 | U | 1.0 | U |
| AROCLOR-1254 | 1 | 13 | | 0.84 | J |
| AROCLOR-1260 | 1 | 26 | | 3.3 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | | OT-TW01 | | OT-TW02 | | OT-TW01 DISS | | OT-TW02 DISS | |
|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | | 17743.04 | | 17743.05 | | 17743.07 | | 17743.08 | |
| TAL METAL TANK WATERS (UG/L) | CRQL | IDL | | | | | | | | |
| ALUMINUM | 200 | 14.0 | 285 | B | 132 | B | 16.1 | B | 14.0 | U |
| ANTIMONY | 60 | 15.0 | 15.0 | U | 15.0 | U | 15.0 | U | 15.0 | U |
| ARSENIC | 10 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| BARIUM | 200 | 5.0 | 40.1 | | 34.5 | | 30.4 | | 30.4 | |
| BERYLLIUM | 5 | 1.0 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| BORON | 50 | 50.0 | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U |
| CADMIUM | 5 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| CALCIUM | 5000 | 157 | 44600 | | 44000 | | 43800 | | 42900 | |
| CHROMIUM | 10 | 3.0 | 4.2 | | 3.0 | U | 3.0 | U | 3.0 | U |
| COBALT | 50 | 4.0 | 4.0 | U | 4.0 | U | 4.0 | U | 4.0 | U |
| COPPER | 25 | 2.0 | 21.1 | B | 9.4 | B | 2.2 | B | 5.6 | B |
| IRON | 100 | 5.0 | 998 | | 699 | | 427 | | 327 | |
| LEAD | 3 | 2.0 | 11.2 | B | 6.4 | B | 2.6 | B | 2.9 | B |
| MAGNESIUM | 5000 | 106 | 5280 | | 5200 | | 5160 | | 5090 | |
| MANGANESE | 15 | 2.0 | 683 | | 672 | | 667 | | 654 | |
| MERCURY | 0.2 | 0.20 | 0.40 | B | 0.40 | B | 0.20 | U | 0.47 | B |
| NICKEL | 40 | 10.0 | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U |
| POTASSIUM | 5000 | 287 | 5650 | | 5320 | | 5620 | | 5440 | |
| SELENIUM | 5 | 3.0 | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U |
| SILVER | 10 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| SODIUM | 5000 | 77.0 | 30400 | | 30100 | | 30000 | | 29500 | |
| THALLIUM | 10 | 1.0 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| VANADIUM | 50 | 5.0 | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U |
| ZINC | 20 | 2.0 | 70.4 | B | 68.0 | B | 14.6 | B | 24.4 | B |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-TW01 | OT-TW02 |
|---|---|---|---|
| LABORATORY ID: | | 17743.04 | 17743.05 |
| MISCELLANEOUS TANK WATERS (MG/L) | IDL | | |
| HARDNESS as CaCO3 | 1.0 | 128 | 128 |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATO

EXCLUDE

| CLIENT ID: | | | | OT-C001-16.317 | | OT-C002-1616.4 | | OT-C002-16.417 | | OT-C003-1616.4 | | OT-C003-16.416.7 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | | | 17668.04 | | 17743.09 | | 17743.10 | | 17743.11 | | 17743.12 | |
| TCL PCB CONCRETE SAMPLES (UG/KG | | | | | | | | | | | | | |
| AROCLOR-1016 | | | U | 340 | U | 34 | U | 35 | U | 34 | U | 34 | U |
| AROCLOR-1221 | | | U | 700 | U | 70 | U | 71 | U | 70 | U | 70 | U |
| AROCLOR-1232 | -- | | U | 340 | U | 34 | U | 35 | U | 34 | U | 34 | U |
| AROCLOR-1242 | 33 | 350 | U | 340 | U | 34 | U | 35 | U | 34 | U | 34 | U |
| AROCLOR-1248 | 33 | 350 | U | 340 | U | 34 | U | 35 | U | 34 | U | 34 | U |
| AROCLOR-1254 | 33 | 350 | U | 340 | U | 34 | U | 35 | U | 34 | U | 34 | U |
| AROCLOR-1260 | 33 | 350 | U | 340 | U | 34 | U | 35 | U | 34 | U | 34 | U |
| % SOLIDS: | | 95 | | 96 | | 96 | | 95 | | 96 | | 96 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C004-0506 | | OT-C004-0506 | | OT-C004-1616.3 | | OT-C004-16.316.75 | | OT-C004-16.316.75 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17668.01 | | 17668.02 DUP | | 17743.13 | | 17743.14 | | 17743.15 DUP | |
| TCL PCB CONCRETE SAMPLES (UG/KG) | CRQL | | | | | | | | | | |
| AROCLOR-1016 | 33 | 340 | U | 340 | U | 34 | U | 34 | U | 34 | U |
| AROCLOR-1221 | 67 | 700 | U | 700 | U | 70 | U | 70 | U | 70 | U |
| AROCLOR-1232 | 33 | 340 | U | 340 | U | 34 | U | 34 | U | 34 | U |
| AROCLOR-1242 | 33 | 340 | U | 340 | U | 34 | U | 34 | U | 34 | U |
| AROCLOR-1248 | 33 | 340 | U | 340 | U | 34 | U | 34 | U | 34 | U |
| AROCLOR-1254 | 33 | 340 | U | 340 | U | 34 | U | 34 | U | 34 | U |
| AROCLOR-1260 | 33 | 340 | U | 340 | U | 34 | U | 34 | U | 34 | U |
| % SOLIDS: | | 96 | | 96 | | 96 | | 96 | | 96 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C001-1616.3 | | OT-C001-16.317 | | OT-C002-1616.4 | | OT-C002-16.417 | | OT-C003-1616.4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17668.07 | | 17668.08 | | 17743.16 | | 17743.17 | | 17743.18 | |
| TCLP VOLATILES (UG/L) | IDL | | | | | | | | | | |
| VINYL CHLORIDE | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| 1,1-DICHLOROETHENE | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| CHLOROFORM | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| 1,2-DICHLOROETHANE | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| CARBON TETRACHLORIDE | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| TRICHLOROETHENE | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| BENZENE | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| TETRACHLOROETHENE | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| CHLOROBENZENE | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |
| METHYL ETHYL KETONE(2-BUTANONE) | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C003-16.416.7 | | OT-C004-0506 | | OT-C004-0506 | |
|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.19 | | 17668.05 | | 17668.06 DUP | |
| TCLP VOLATILES (UG/L) | IDL | | | | | | |
| VINYL CHLORIDE | 50 | 50 | U | 50 | U | 50 | U |
| 1,1-DICHLOROETHENE | 50 | 50 | U | 50 | U | 50 | U |
| CHLOROFORM | 50 | 50 | U | 50 | U | 50 | U |
| 1,2-DICHLOROETHANE | 50 | 50 | U | 50 | U | 50 | U |
| CARBON TETRACHLORIDE | 50 | 50 | U | 50 | U | 50 | U |
| TRICHLOROETHENE | 50 | 50 | U | 50 | U | 50 | U |
| BENZENE | 50 | 50 | U | 50 | U | 50 | U |
| TETRACHLOROETHENE | 50 | 50 | U | 50 | U | 50 | U |
| CHLOROBENZENE | 50 | 50 | U | 50 | U | 50 | U |
| METHYL ETHYL KETONE(2-BUTANONE) | 50 | 50 | U | 50 | U | 50 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C001-1616.3 | | OT-C001-16.317 | | OT-C002-1616.4 | | OT-C002-16.417 | | OT-C003-1616.4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17668.07 | | 17668.08 | | 17743.16 | | 17743.17 | | 17743.18 | |
| TCLP SEMIVOLATILES (UG/L) | IDL | | | | | | | | | | |
| 1,4-DICHLOROBENZENE | 20 | 20 | U | 20 | U | 20 | U | 20 | U | 20 | U |
| 2-METHYLPHENOL(O-CRESOL) | 20 | 8 | J | 20 | U | 20 | U | 10 | J | 20 | U |
| 4-METHYLPHENOL(P-CRESOL) | 20 | 7 | J | 20 | U | 20 | U | 7 | J | 20 | U |
| HEXACHLOROETHANE | 20 | 20 | U | 20 | U | 20 | U | 20 | U | 20 | U |
| NITROBENZENE | 20 | 20 | U | 20 | U | 20 | U | 20 | U | 20 | U |
| HEXACHLOROBUTADIENE | 20 | 20 | U | 20 | U | 20 | U | 20 | U | 20 | U |
| 2,4,6-TRICHLOROPHENOL | 20 | 20 | U | 20 | U | 20 | U | 20 | U | 20 | U |
| 2,4,5-TRICHLOROPHENOL | 100 | 100 | U | 100 | U | 100 | U | 100 | U | 100 | U |
| 2,4-DINITROTOLUENE | 20 | 20 | U | 20 | U | 20 | U | 20 | U | 20 | U |
| HEXACHLOROBENZENE | 20 | 20 | U | 20 | U | 20 | U | 20 | U | 20 | U |
| PENTACHLOROPHENOL | 100 | 100 | U | 100 | U | 100 | U | 100 | U | 100 | U |
| PYRIDINE | 20 | 20 | U | 20 | U | 20 | U | 20 | U | 20 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C003-16.416.7 | | OT-C004-0506 | | OT-C004-0506 | |
|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.19 | | 17668.05 | | 17668.06 DUP | |
| TCLP SEMIVOLATILES (UG/L) | IDL | | | | | | |
| 1,4-DICHLOROBENZENE | 20 | 20 | U | 20 | U | 20 | U |
| 2-METHYLPHENOL(O-CRESOL) | 20 | 2 | J | 20 | U | 20 | U |
| 4-METHYLPHENOL(P-CRESOL) | 20 | 20 | U | 20 | U | 20 | U |
| HEXACHLOROETHANE | 20 | 20 | U | 20 | U | 20 | U |
| NITROBENZENE | 20 | 20 | U | 20 | U | 20 | U |
| HEXACHLOROBUTADIENE | 20 | 20 | U | 20 | U | 20 | U |
| 2,4,6-TRICHLOROPHENOL | 20 | 20 | U | 20 | U | 20 | U |
| 2,4,5-TRICHLOROPHENOL | 100 | 100 | U | 100 | U | 100 | U |
| 2,4-DINITROTOLUENE | 20 | 20 | U | 20 | U | 20 | U |
| HEXACHLOROBENZENE | 20 | 20 | U | 20 | U | 20 | U |
| PENTACHLOROPHENOL | 100 | 100 | U | 100 | U | 100 | U |
| PYRIDINE | 20 | 20 | U | 20 | U | 20 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C001-1616.3 | | OT-C001-16.317 | | OT-C002-1616.4 | | OT-C002-16.417 | | OT-C003-1616.4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17668.07 | | 17668.08 | | 17743.16 | | 17743.17 | | 17743.18 | |
| TCLP HERBICIDES (UG/L) | IDL | | | | | | | | | | |
| 2,4-D | 1000 | 1000 | U | 1000 | U | 1000 | U | 1000 | U | 1000 | U |
| 2,4,5-TP (SILVEX) | 100 | 100 | U | 100 | U | 100 | U | 100 | U | 100 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C003-16.416.7 | | OT-C004-0506 | | OT-C004-0506 | |
|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.19 | | 17668.05 | | 17668.06 DUP | |
| TCLP HERBICIDES (UG/L) | IDL | | | | | | |
| 2,4-D | 1000 | 1000 | U | 1000 | U | 1000 | U |
| 2,4,5-TP (SILVEX) | 100 | 100 | U | 100 | U | 100 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C001-1616.3 | | OT-C001-16.317 | | OT-C002-1616.4 | | OT-C002-16.417 | | OT-C003-1616.4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17668.07 | | 17668.08 | | 17743.16 | | 17743.17 | | 17743.18 | |
| TCLP PESTICIDES (UG/L) | IDL | | | | | | | | | | |
| GAMMA-BHC | 40 | 40 | U | 40 | U | 40 | U | 40 | U | 40 | U |
| HEPTACHLOR | 0.80 | 0.80 | U | 0.80 | U | 0.80 | U | 0.80 | U | 0.80 | U |
| ENDRIN | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| HEPTACHLOR EPOXIDE | 0.80 | 0.80 | U | 0.80 | U | 0.80 | U | 0.80 | U | 0.80 | U |
| ALPHA CHLORDANE | 3.0 | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U |
| GAMMA CHLORDANE | 3.0 | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U |
| METHOXYCHLOR | 1000 | 1000 | U | 1000 | U | 1000 | U | 1000 | U | 1000 | U |
| TOXAPHENE | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C003-16.416.7 | | OT-C004-0506 | | OT-C004-0506 | |
|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.19 | | 17668.05 | | 17668.06 DUP | |
| TCLP PESTICIDES (UG/L) | IDL | | | | | | |
| GAMMA-BHC | 40 | 40 | U | 40 | U | 40 | U |
| HEPTACHLOR | 0.80 | 0.80 | U | 0.80 | U | 0.80 | U |
| ENDRIN | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U |
| HEPTACHLOR EPOXIDE | 0.80 | 0.80 | U | 0.80 | U | 0.80 | U |
| ALPHA CHLORDANE | 3.0 | 3.0 | U | 3.0 | U | 3.0 | U |
| GAMMA CHLORDANE | 3.0 | 3.0 | U | 3.0 | U | 3.0 | U |
| METHOXYCHLOR | 1000 | 1000 | U | 1000 | U | 1000 | U |
| TOXAPHENE | 50 | 50 | U | 50 | U | 50 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C001-1616.3 | | OT-C001-16.317 | | OT-C002-1616.4 | | OT-C002-16.417 | | OT-C003-1616.4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17668.07 | | 17668.08 | | 17743.16 | | 17743.17 | | 17743.18 | |
| TCLP METALS (UG/L) | IDL | | | | | | | | | | |
| ARSENIC | 26.0 | 26.0 | U | 26.0 | U | 26.0 | U | 26.0 | U | 26.0 | U |
| BARIUM | 5.0 | **123** | | **84.2** | | **122** | | **176** | | **88.2** | |
| CADMIUM | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| CHROMIUM | 3.0 | 3.0 | U | 3.0 | U | **5.8** | | **7.4** | | **8.0** | |
| LEAD | 14.0 | 14.0 | U | 14.0 | U | 14.0 | U | 14.0 | U | 14.0 | U |
| MERCURY | 2.0 | 2.0 | U | 2.0 | U | **5.7** | | 2.0 | U | 2.0 | U |
| SELENIUM | 24.0 | 24.0 | U | 24.0 | U | 24.0 | U | 24.0 | U | 24.0 | U |
| SILVER | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-C003-16.416.7 | | OT-C004-0506 | | OT-C004-0506 | | OT-C004-1616.3 | | OT-C004-16.316.75 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.19 | | 17668.05 | | 17668.06 DUP | | 17743.20 | | 17743.21 | |
| TCLP METALS (UG/L) | IDL | | | | | | | | | | |
| ARSENIC | 26.0 | 26.0 | U | 26.0 | U | 26.0 | U | 26.0 | U | 26.0 | U |
| BARIUM | 5.0 | **108** | | **255** | | **266** | | **88.5** | | **92.1** | |
| CADMIUM | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| CHROMIUM | 3.0 | **5.6** | | **17.8** | | **16.7** | | **4.4** | | **7.0** | |
| LEAD | 14.0 | 14.0 | U | 14.0 | U | 14.0 | U | 14.0 | U | 14.0 | U |
| MERCURY | 2.0 | **4.1** | | 2.0 | U | 2.0 | U | **4.7** | | **3.0** | |
| SELENIUM | 24.0 | 24.0 | U | 24.0 | U | 24.0 | U | 24.0 | U | 24.0 | U |
| SILVER | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| | | | |
|---|---|---|---|
| CLIENT ID: | | OT-C004-16.316.75 | |
| LABORATORY ID: | | 17743.22 DUP | |
| TCLP METALS (UG/L) | IDL | | |
| ARSENIC | 26.0 | 26.0 | U |
| BARIUM | 5.0 | **94.0** | |
| CADMIUM | 2.0 | 2.0 | U |
| CHROMIUM | 3.0 | **5.6** | |
| LEAD | 14.0 | 14.0 | U |
| MERCURY | 2.0 | **3.0** | |
| SELENIUM | 24.0 | 24.0 | U |
| SILVER | 2.0 | 2.0 | U |

MOED

SITE: CTO 129,
LABORATORY: AHOMA

| CLIENT ID: | | OT-S001-0204 | | OT-S001-1820 | | OT-S001-1820D | | OT-S001-2022 | | OT-S002-0204 | | OT-S002-1719 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY I | | 17656.04 | | 17668.09 | | 17668.10 | | 17668.11 | | 17656.05 | | 17743.23 | |
| TCL VOLATILES SOILS (UG/KG) | CRQL | | | | | | | | | | | | |
| CHLOROMETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| BROMOMETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| VINYL CHLORIDE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| CHLOROETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| METHYLENE CHLORIDE | 10 | 12 | U | 7 | JB | 8 | JB | 9 | JB | 58 | U | 11 | U |
| ACETONE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| CARBON DISULFIDE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 1,1-DICHLOROETHENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 1,1-DICHLOROETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 1,2-DICHLOROETHENE (TOTAL) | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| CHLOROFORM | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 1,2-DICHLOROETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 2-BUTANONE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 1,1,1-TRICHLOROETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| CARBON TETRACHLORIDE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| BROMODICHLOROMETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 1,2-DICHLOROPROPANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| CIS-1,3-DICHLOROPROPENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| TRICHLOROETHENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| DIBROMOCHLOROMETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 1,1,2-TRICHLOROETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| BENZENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| TRANS-1,3-DICHLOROPROPENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| BROMOFORM | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 4-METHYL-2-PENTANONE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 2-HEXANONE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| TETRACHLOROETHENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| 1,1,2,2-TETRACHLOROETHANE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| TOLUENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| CHLOROBENZENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| ETHYLBENZENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 400 | | 11 | U |
| STYRENE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| XYLENE (TOTAL) | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 310 | | 11 | U |
| VINYL ACETATE | 10 | 12 | U | 11 | U | 11 | U | 13 | U | 58 | U | 11 | U |
| % SOLIDS: | | 86 | | 93 | | 89 | | 78 | | 86 | | 90 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S002-1921 | | OT-S003-0204 | | OT-S003-1719 | | OT-S003-1719D | | OT-S003-1921 | | OT-S004-0204 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.24 | | 17656.06 | | 17743.25 | | 17743.26 | | 17743.27 | | 17656.09 | |
| TCL VOLATILES SOILS (UG/KG) | CRQL | | | | | | | | | | | | |
| CHLOROMETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| BROMOMETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| VINYL CHLORIDE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| CHLOROETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| METHYLENE CHLORIDE | 10 | 4 | J | 11 | U | 12 | U | 3 | J | 5 | J | 12 | U |
| ACETONE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| CARBON DISULFIDE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 1,1-DICHLOROETHENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 1,1-DICHLOROETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 1,2-DICHLOROETHENE (TOTAL) | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| CHLOROFORM | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 1,2-DICHLOROETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 2-BUTANONE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 1,1,1-TRICHLOROETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| CARBON TETRACHLORIDE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| BROMODICHLOROMETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 1,2-DICHLOROPROPANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| CIS-1,3-DICHLOROPROPENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| TRICHLOROETHENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| DIBROMOCHLOROMETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 1,1,2-TRICHLOROETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| BENZENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| TRANS-1,3-DICHLOROPROPENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| BROMOFORM | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 4-METHYL-2-PENTANONE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 2-HEXANONE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| TETRACHLOROETHENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| 1,1,2,2-TETRACHLOROETHANE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| TOLUENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| CHLOROBENZENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| ETHYLBENZENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| STYRENE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| XYLENE (TOTAL) | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| VINYL ACETATE | 10 | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U |
| % SOLIDS: | | 80 | | 87 | | 85 | | 86 | | 82 | | 84 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S004-1719 | | OT-S004-1921 | |
|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.28 | | 17743.29 | |
| TCL VOLATILES SOILS (UG/KG) | CRQL | | | | |
| CHLOROMETHANE | 10 | 11 | U | 13 | U |
| BROMOMETHANE | 10 | 11 | U | 13 | U |
| VINYL CHLORIDE | 10 | 11 | U | 13 | U |
| CHLOROETHANE | 10 | 11 | U | 13 | U |
| METHYLENE CHLORIDE | 10 | 3 | J | 9 | J |
| ACETONE | 10 | 11 | U | 13 | U |
| CARBON DISULFIDE | 10 | 11 | U | 13 | U |
| 1,1-DICHLOROETHENE | 10 | 11 | U | 13 | U |
| 1,1-DICHLOROETHANE | 10 | 11 | U | 13 | U |
| 1,2-DICHLOROETHENE (TOTAL) | 10 | 11 | U | 13 | U |
| CHLOROFORM | 10 | 11 | U | 13 | U |
| 1,2-DICHLOROETHANE | 10 | 11 | U | 13 | U |
| 2-BUTANONE | 10 | 11 | U | 13 | U |
| 1,1,1-TRICHLOROETHANE | 10 | 11 | U | 13 | U |
| CARBON TETRACHLORIDE | 10 | 11 | U | 13 | U |
| BROMODICHLOROMETHANE | 10 | 11 | U | 13 | U |
| 1,2-DICHLOROPROPANE | 10 | 11 | U | 13 | U |
| CIS-1,3-DICHLOROPROPENE | 10 | 11 | U | 13 | U |
| TRICHLOROETHENE | 10 | 11 | U | 13 | U |
| DIBROMOCHLOROMETHANE | 10 | 11 | U | 13 | U |
| 1,1,2-TRICHLOROETHANE | 10 | 11 | U | 13 | U |
| BENZENE | 10 | 11 | U | 13 | U |
| TRANS-1,3-DICHLOROPROPENE | 10 | 11 | U | 13 | U |
| BROMOFORM | 10 | 11 | U | 13 | U |
| 4-METHYL-2-PENTANONE | 10 | 11 | U | 13 | U |
| 2-HEXANONE | 10 | 11 | U | 13 | U |
| TETRACHLOROETHENE | 10 | 11 | U | 13 | U |
| 1,1,2,2-TETRACHLOROETHANE | 10 | 11 | U | 13 | U |
| TOLUENE | 10 | 11 | U | 13 | U |
| CHLOROBENZENE | 10 | 11 | U | 13 | U |
| ETHYLBENZENE | 10 | 11 | U | 13 | U |
| STYRENE | 10 | 11 | U | 13 | U |
| XYLENE (TOTAL) | 10 | 11 | U | 13 | U |
| VINYL ACETATE | 10 | 11 | U | 13 | U |
| % SOLIDS: | | 91 | | 78 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S001-0204 | | OT-S001-1820 | | OT-S001-1820D | | OT-S001-2022 | | OT-S002-0204 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17656.04 | | 17668.09 | | 17668.10 | | 17668.11 | | 17656.05 | |
| TCL SEMIVOLATILE SOILS (UG/KG) | CRQL | | | | | | | | | | |
| PHENOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BIS(2-CHLOROETHYL)ETHER | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2-CHLOROPHENOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 1,3-DICHLOROBENZENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 1,4-DICHLOROBENZENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 1,2-DICHLOROBENZENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2-METHYLPHENOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BIS(2-CHLOROISOPROPYL)ETHER | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 4-METHYLPHENOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| HEXACHLOROETHANE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| NITROBENZENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| ISOPHORONE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2-NITROPHENOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2,4-DIMETHYLPHENOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2,4-DICHLOROPHENOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 1,2,4-TRICHLOROBENZENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| NAPHTHALENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 660 | |
| 4-CHLOROANILINE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BIS(2-CHLOROETHOXY)METHANE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| HEXACHLOROBUTADIENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 4-CHLORO-3-METHYLPHENOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2-METHYLNAPHTHALENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 2600 | |
| HEXACHLOROCYCLOPENTADIENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2,4,6-TRICHLOROPHENOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2,4,5-TRICHLOROPHENOL | 800 | 930 | U | 860 | U | 900 | U | 1000 | U | 930 | U |
| 2-CHLORONAPHTHALENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2-NITROANILINE | 800 | 930 | U | 860 | U | 900 | U | 1000 | U | 930 | U |
| DIMETHYL PHTHALATE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| ACENAPHTHYLENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 2,6-DINITROTOLUENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 3-NITROANILINE | 800 | 930 | U | 860 | U | 900 | U | 1000 | U | 930 | U |
| ACENAPHTHENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S001-0204 | | OT-S001-1820 | | OT-S001-1820D | | OT-S001-2022 | | OT-S002-0204 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17656.04 | | 17668.09 | | 17668.10 | | 17668.11 | | 17656.05 | |
| TCL SEMIVOLATILE SOILS (UG/KG) | CRQL | | | | | | | | | | |
| 2,4-DINITROPHENOL | 800 | 930 | U | 860 | U | 900 | U | 1000 | U | 930 | U |
| 4-NITROPHENOL | 800 | 930 | U | 860 | U | 900 | U | 1000 | U | 930 | U |
| DIBENZOFURAN | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 170 | J |
| 2,4-DINITROTOLUENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| DIETHYLPHTHALATE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| FLUORENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 470 | |
| 4-NITROANILINE | 800 | 930 | U | 860 | U | 900 | U | 1000 | U | 930 | U |
| 4,6-DINITRO-2-METHYLPHENOL | 800 | 930 | U | 860 | U | 900 | U | 1000 | U | 930 | U |
| N-NITROSODIPHENYLAMIN(1) | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| HEXACHLOROBENZENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| PENTACHLOROPHENOL | 800 | 930 | U | 860 | U | 900 | U | 1000 | U | 930 | U |
| PHENANTHRENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 470 | |
| ANTHRACENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| CARBAZOLE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| DI-N-BUTYLPHTHALATE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| FLUORANTHENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| PYRENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 66 | J |
| BUTYLBENZYLPHTHALATE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| 3,3'-DICHLOROBENZIDINE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BENZO(A)ANTHRACENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 21 | J |
| CHRYSENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 38 | J |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 260 | JB | 180 | JB | 140 | JB | 83 | JB | 72 | JB |
| DI-N-OCTYL PHTHALATE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BENZO(B)FLUORANTHENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BENZO(K)FLUORANTHENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BENZO(A)PYRENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| INDENO(1,2,3-CD)PYRENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| DIBENZ(A,H)ANTHRACENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BENZO(G,H,I)PERYLENE | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BENZYL ALCOHOL | 330 | 380 | U | 350 | U | 370 | U | 420 | U | 380 | U |
| BENZOIC ACID | 1700 | 44 | J | 1700 | U | 1800 | U | 2000 | U | 1900 | U |
| % SOLIDS: | | 86 | | 93 | | 89 | | 78 | | 86 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S002-1719 | | OT-S002-1921 | | OT-S003-0204 | | OT-S003-1719 | | OT-S003-1719D | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.23 | | 17743.24 | | 17656.06 | | 17743.25 | | 17743.26 | |
| TCL SEMIVOLATILE SOILS (UG/KG) | CRQL | | | | | | | | | | |
| PHENOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BIS(2-CHLOROETHYL)ETHER | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2-CHLOROPHENOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 1,3-DICHLOROBENZENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 1,4-DICHLOROBENZENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 1,2-DICHLOROBENZENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2-METHYLPHENOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BIS(2-CHLOROISOPROPYL)ETHER | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 4-METHYLPHENOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| HEXACHLOROETHANE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| NITROBENZENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| ISOPHORONE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2-NITROPHENOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2,4-DIMETHYLPHENOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2,4-DICHLOROPHENOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 1,2,4-TRICHLOROBENZENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| NAPHTHALENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 4-CHLOROANILINE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BIS(2-CHLOROETHOXY)METHANE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| HEXACHLOROBUTADIENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 4-CHLORO-3-METHYLPHENOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2-METHYLNAPHTHALENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| HEXACHLOROCYCLOPENTADIENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2,4,6-TRICHLOROPHENOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2,4,5-TRICHLOROPHENOL | 800 | 890 | U | 1000 | U | 920 | U | 940 | U | 930 | U |
| 2-CHLORONAPHTHALENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2-NITROANILINE | 800 | 890 | U | 1000 | U | 920 | U | 940 | U | 930 | U |
| DIMETHYL PHTHALATE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| ACENAPHTHYLENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2,6-DINITROTOLUENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 3-NITROANILINE | 800 | 890 | U | 1000 | U | 920 | U | 940 | U | 930 | U |
| ACENAPHTHENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S002-1719 | | OT-S002-1921 | | OT-S003-0204 | | OT-S003-1719 | | OT-S003-1719D | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.23 | | 17743.24 | | 17656.06 | | 17743.25 | | 17743.26 | |
| TCL SEMIVOLATILE SOILS (UG/KG) | CRQL | | | | | | | | | | |
| 2,4-DINITROPHENOL | 800 | 890 | U | 1000 | U | 920 | U | 940 | U | 930 | U |
| 4-NITROPHENOL | 800 | 890 | U | 1000 | U | 920 | U | 940 | U | 930 | U |
| DIBENZOFURAN | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 2,4-DINITROTOLUENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| DIETHYLPHTHALATE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| FLUORENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 4-NITROANILINE | 800 | 890 | U | 1000 | U | 920 | U | 940 | U | 930 | U |
| 4,6-DINITRO-2-METHYLPHENOL | 800 | 890 | U | 1000 | U | 920 | U | 940 | U | 930 | U |
| N-NITROSODIPHENYLAMIN(1) | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| HEXACHLOROBENZENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| PENTACHLOROPHENOL | 800 | 890 | U | 1000 | U | 920 | U | 940 | U | 930 | U |
| PHENANTHRENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| ANTHRACENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| CARBAZOLE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| DI-N-BUTYLPHTHALATE | 330 | 370 | U | 34 | J | 380 | U | 390 | U | 380 | U |
| FLUORANTHENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| PYRENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BUTYLBENZYLPHTHALATE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| 3,3'-DICHLOROBENZIDINE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BENZO(A)ANTHRACENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| CHRYSENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 140 | JB | 89 | JB | 74 | JB | 120 | JB | 150 | JB |
| DI-N-OCTYL PHTHALATE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BENZO(B)FLUORANTHENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BENZO(K)FLUORANTHENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BENZO(A)PYRENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| INDENO(1,2,3-CD)PYRENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| DIBENZ(A,H)ANTHRACENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BENZO(G,H,I)PERYLENE | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BENZYL ALCOHOL | 330 | 370 | U | 410 | U | 380 | U | 390 | U | 380 | U |
| BENZOIC ACID | 1700 | 1800 | U | 2000 | U | 33 | J | 1900 | U | 1900 | U |
| % SOLIDS: | | 90 | | 80 | | 87 | | 85 | | 86 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S003-1921 | | OT-S004-0204 | | OT-S004-1719 | | OT-S004-1921 | |
|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.27 | | 17656.09 | | 17743.28 | | 17743.29 | |
| TCL SEMIVOLATILE SOILS (UG/KG) | CRQL | | | | | | | | |
| PHENOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BIS(2-CHLOROETHYL)ETHER | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2-CHLOROPHENOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 1,3-DICHLOROBENZENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 1,4-DICHLOROBENZENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 1,2-DICHLOROBENZENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2-METHYLPHENOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BIS(2-CHLOROISOPROPYL)ETHER | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 4-METHYLPHENOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| HEXACHLOROETHANE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| NITROBENZENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| ISOPHORONE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2-NITROPHENOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2,4-DIMETHYLPHENOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2,4-DICHLOROPHENOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 1,2,4-TRICHLOROBENZENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| NAPHTHALENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 4-CHLOROANILINE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BIS(2-CHLOROETHOXY)METHANE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| HEXACHLOROBUTADIENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 4-CHLORO-3-METHYLPHENOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2-METHYLNAPHTHALENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| HEXACHLOROCYCLOPENTADIENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2,4,6-TRICHLOROPHENOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2,4,5-TRICHLOROPHENOL | 800 | 980 | U | 950 | U | 880 | U | 1000 | U |
| 2-CHLORONAPHTHALENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2-NITROANILINE | 800 | 980 | U | 950 | U | 880 | U | 1000 | U |
| DIMETHYL PHTHALATE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| ACENAPHTHYLENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2,6-DINITROTOLUENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 3-NITROANILINE | 800 | 980 | U | 950 | U | 880 | U | 1000 | U |
| ACENAPHTHENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S003-1921 | | OT-S004-0204 | | OT-S004-1719 | | OT-S004-1921 | |
|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.27 | | 17656.09 | | 17743.28 | | 17743.29 | |
| TCL SEMIVOLATILE SOILS (UG/KG) | CRQL | | | | | | | | |
| 2,4-DINITROPHENOL | 800 | 980 | U | 950 | U | 880 | U | 1000 | U |
| 4-NITROPHENOL | 800 | 980 | U | 950 | U | 880 | U | 1000 | U |
| DIBENZOFURAN | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 2,4-DINITROTOLUENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| DIETHYLPHTHALATE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| FLUORENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 4-NITROANILINE | 800 | 980 | U | 950 | U | 880 | U | 1000 | U |
| 4,6-DINITRO-2-METHYLPHENOL | 800 | 980 | U | 950 | U | 880 | U | 1000 | U |
| N-NITROSODIPHENYLAMIN(1) | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| HEXACHLOROBENZENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| PENTACHLOROPHENOL | 800 | 980 | U | 950 | U | 880 | U | 1000 | U |
| PHENANTHRENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| ANTHRACENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| CARBAZOLE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| DI-N-BUTYLPHTHALATE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| FLUORANTHENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| PYRENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BUTYLBENZYLPHTHALATE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| 3,3'-DICHLOROBENZIDINE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BENZO(A)ANTHRACENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| CHRYSENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 150 | JB | 130 | JB | 140 | JB | 110 | JB |
| DI-N-OCTYL PHTHALATE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BENZO(B)FLUORANTHENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BENZO(K)FLUORANTHENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BENZO(A)PYRENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| INDENO(1,2,3-CD)PYRENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| DIBENZ(A,H)ANTHRACENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BENZO(G,H,I)PERYLENE | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BENZYL ALCOHOL | 330 | 400 | U | 390 | U | 360 | U | 420 | U |
| BENZOIC ACID | 1700 | 2000 | U | 1900 | U | 1800 | U | 2000 | U |
| % SOLIDS: | | 82 | | 84 | | 91 | | 78 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S001-0204 | | OT-S002-0204 | | OT-S002-1719 | | OT-S002-1921 | | OT-S003-0204 | | OT-S003-1719 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17656.04 | | 17656.05 | | 17743.23 | | 17743.24 | | 17656.06 | | 17743.25 | |
| TCL PESTICIDES/PCB SOILS (UG/KG) | CRQL | | | | | | | | | | | | |
| ALPHA-BHC | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| BETA-BHC | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| DELTA-BHC | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| GAMMA-BHC (LINDANE) | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| HEPTACHLOR | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| ALDRIN | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| HEPTACHLOR EPOXIDE | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| ENDOSULFAN I | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| DIELDRIN | 3.3 | 38 | U | 38 | U | 37 | U | 41 | U | 38 | U | 39 | U |
| 4,4'-DDE | 3.3 | 4.4 | J | 38 | U | 37 | U | 41 | U | 11 | J | 39 | U |
| ENDRIN | 3.3 | 38 | U | 38 | U | 37 | U | 41 | U | 38 | U | 39 | U |
| ENDOSULFAN II | 3.3 | 38 | U | 38 | U | 37 | U | 41 | U | 38 | U | 39 | U |
| 4,4'-DDD | 3.3 | 4.4 | J | 38 | U | 37 | U | 41 | U | 17 | J | 39 | U |
| ENDOSULFAN SULFATE | 3.3 | 38 | U | 38 | U | 37 | U | 41 | U | 38 | U | 39 | U |
| 4,4'-DDT | 3.3 | 12 | J | 38 | U | 37 | U | 41 | U | 71 | | 39 | U |
| METHOXYCHLOR | 17 | 200 | U | 200 | U | 190 | U | 210 | U | 200 | U | 200 | U |
| ENDRIN KETONE | 3.3 | 38 | U | 38 | U | 37 | U | 41 | U | 38 | U | 39 | U |
| ENDRIN ALDEHYDE | 3.3 | 38 | U | 38 | U | 37 | U | 41 | U | 38 | U | 39 | U |
| ALPHA-CHLORDANE | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| GAMMA-CHLORDANE | 1.7 | 20 | U | 20 | U | 19 | U | 21 | U | 20 | U | 20 | U |
| TOXAPHENE | 170 | 2000 | U | 2000 | U | 1900 | U | 2100 | U | 2000 | U | 2000 | U |
| AROCLOR-1016 | 33 | 380 | U | 380 | U | 370 | U | 410 | U | 380 | U | 390 | U |
| AROCLOR-1221 | 67 | 780 | U | 780 | U | 740 | U | 840 | U | 770 | U | 790 | U |
| AROCLOR-1232 | 33 | 380 | U | 380 | U | 370 | U | 410 | U | 380 | U | 390 | U |
| AROCLOR-1242 | 33 | 380 | U | 380 | U | 370 | U | 410 | U | 380 | U | 390 | U |
| AROCLOR-1248 | 33 | 380 | U | 380 | U | 370 | U | 410 | U | 380 | U | 390 | U |
| AROCLOR-1254 | 33 | 380 | U | 380 | U | 370 | U | 410 | U | 380 | U | 390 | U |
| AROCLOR-1260 | 33 | 380 | U | 380 | U | 370 | U | 410 | U | 380 | U | 390 | U |
| % SOLIDS: | | 86 | | 86 | | 90 | | 80 | | 87 | | 85 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-S003-1719D | | OT-S003-1921 | | OT-S004-0204 | | OT-S004-1719 | | OT-S004-1921 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.26 | | 17743.27 | | 17656.09 | | 17743.28 | | 17743.29 | |
| TCL PESTICIDES/PCB SOILS (UG/KG) | CRQL | | | | | | | | | | |
| ALPHA-BHC | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| BETA-BHC | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| DELTA-BHC | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| GAMMA-BHC (LINDANE) | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| HEPTACHLOR | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| ALDRIN | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| HEPTACHLOR EPOXIDE | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| ENDOSULFAN I | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| DIELDRIN | 3.3 | 38 | U | 41 | U | 39 | U | 36 | U | 42 | U |
| 4,4'-DDE | 3.3 | 38 | U | 41 | U | 12 | J | 36 | U | 42 | U |
| ENDRIN | 3.3 | 38 | U | 41 | U | 39 | U | 36 | U | 42 | U |
| ENDOSULFAN II | 3.3 | 38 | U | 41 | U | 39 | U | 36 | U | 42 | U |
| 4,4'-DDD | 3.3 | 38 | U | 41 | U | 39 | U | 36 | U | 42 | U |
| ENDOSULFAN SULFATE | 3.3 | 38 | U | 41 | U | 39 | U | 36 | U | 42 | U |
| 4,4'-DDT | 3.3 | 38 | U | 41 | U | 16 | J | 36 | U | 42 | U |
| METHOXYCHLOR | 17 | 200 | U | 210 | U | 200 | U | 190 | U | 220 | U |
| ENDRIN KETONE | 3.3 | 38 | U | 41 | U | 39 | U | 36 | U | 42 | U |
| ENDRIN ALDEHYDE | 3.3 | 38 | U | 41 | U | 39 | U | 36 | U | 42 | U |
| ALPHA-CHLORDANE | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| GAMMA-CHLORDANE | 1.7 | 20 | U | 21 | U | 20 | U | 19 | U | 22 | U |
| TOXAPHENE | 170 | 2000 | U | 2100 | U | 2000 | U | 1900 | U | 2200 | U |
| AROCLOR-1016 | 33 | 380 | U | 410 | U | 390 | U | 360 | U | 420 | U |
| AROCLOR-1221 | 67 | 780 | U | 830 | U | 790 | U | 740 | U | 860 | U |
| AROCLOR-1232 | 33 | 380 | U | 410 | U | 390 | U | 360 | U | 420 | U |
| AROCLOR-1242 | 33 | 380 | U | 410 | U | 390 | U | 360 | U | 420 | U |
| AROCLOR-1248 | 33 | 380 | U | 410 | U | 390 | U | 360 | U | 420 | U |
| AROCLOR-1254 | 33 | 380 | U | 410 | U | 390 | U | 360 | U | 420 | U |
| AROCLOR-1260 | 33 | 380 | U | 410 | U | 390 | U | 360 | U | 420 | U |
| % SOLIDS: | | 86 | | 81 | | 84 | | 91 | | 78 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | | OT-S001-0204 | | OT-S001-1820 | | OT-S001-1820D | | OT-S001-2022 | | OT-S002-0204 | | OT-S002-1719 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | | 17656.04 | | 17668.09 | | 17668.10 | | 17668.11 | | 17656.05 | | 17743.23 | |
| TAL METALS SOILS (MG/KG) | CRDL | IDL | | | | | | | | | | | | |
| ALUMINUM | 40 | 2.8 | 10900 | | 5490 | | 5400 | | 13000 | | 12900 | | 5760 | |
| ANTIMONY | 12 | 3.0 | 9.7 | B | 5.0 | B | 8.6 | B | 14.8 | B | 12.4 | B | 3.4 | U |
| ARSENIC | 2 | 0.40 | 2.4 | B | 2.2 | B | 2.5 | B | 3.9 | | 2.3 | B | 1.4 | |
| BARIUM | 40 | 1.0 | 65.9 | | 33.1 | | 25.3 | | 96.8 | | 86.6 | | 40.5 | |
| BERYLLIUM | 1 | 0.20 | 0.41 | | 0.23 | U | 0.25 | | 0.46 | | 0.42 | | 0.23 | U |
| BORON | 10 | 10.0 | 11.4 | U | 11.5 | U | 10.9 | U | 13.0 | U | 11.5 | U | 11.3 | U |
| CADMIUM | 1 | 0.40 | 0.46 | U | 0.46 | U | 0.44 | U | 0.52 | U | 0.46 | U | 0.45 | U |
| CALCIUM | 1000 | 31.4 | 2030 | | 1050 | | 1270 | | 4210 | | 2240 | | 6510 | |
| CHROMIUM | 2 | 0.60 | 15.8 | | 8.2 | | 8.9 | | 30.7 | | 17.3 | | 11.7 | |
| COBALT | 10 | 0.80 | 5.7 | | 2.8 | | 3.7 | | 8.1 | | 6.2 | | 4.1 | |
| COPPER | 5 | 0.40 | 14.9 | | 12.7 | | 18.7 | | 21.2 | | 16.4 | | 38.3 | |
| IRON | 20 | 1.0 | 13100 | | 6960 | | 6750 | | 16700 | | 15100 | | 11300 | |
| LEAD | 0.6 | 0.40/0.60 | 9.6 | | 4.4 | | 3.2 | | 4.9 | | 4.9 | | 2.6 | B |
| MAGNESIUM | 1000 | 21.2 | 3740 | | 2140 | | 2290 | | 5980 | | 4600 | | 2930 | |
| MANGANESE | 3 | 0.40 | 222 | | 143 | | 130 | | 237 | | 270 | | 162 | |
| MERCURY | 0.1 | 0.10 | 0.11 | U | 0.12 | U | 0.11 | U | 0.13 | U | 0.12 | U | 0.11 | U |
| NICKEL | 8 | 2.0 | 9.9 | | 5.5 | | 10.4 | | 22.3 | | 9.7 | | 12.3 | |
| POTASSIUM | 1000 | 57.4 | 2600 | | 1370 | | 1230 | | 4260 | | 3380 | | 1960 | |
| SELENIUM | 1 | 0.60 | 0.68 | U | 0.69 | U | 0.65 | U | 0.78 | U | 0.69 | U | 0.68 | U |
| SILVER | 2 | 0.40 | 0.46 | U | 0.46 | U | 0.44 | U | 0.52 | U | 0.46 | U | 0.45 | U |
| SODIUM | 1000 | 15.4 | 237 | | 183 | | 164 | | 529 | | 278 | | 240 | |
| THALLIUM | 2 | 0.20 | 0.46 | B | 0.34 | B | 0.22 | U | 0.28 | B | 0.29 | B | 0.23 | U |
| VANADIUM | 10 | 1.0 | 25.0 | | 11.6 | | 11.2 | | 35.5 | | 29.9 | | 15.1 | |
| ZINC | 4 | 0.40 | 36.4 | | 25.2 | | 26.4 | | 42.0 | | 41.5 | | 46.5 | |
| % SOLIDS: | | | 87.6 | | 86.9 | | 91.8 | | 77.0 | | 86.9 | | 88.6 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | | OT-S002-1921 | | OT-S003-0204 | | OT-S003-1719 | | OT-S003-1719D | | OT-S003-1921 | | OT-S004-0204 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | | 17743.24 | | 17656.06 | | 17743.25 | | 17743.26 | | 17743.27 | | 17656.09 | |
| TAL METALS SOILS (MG/KG) | CRDL | IDL | | | | | | | | | | | | |
| ALUMINUM | 40 | 2.8 | 14600 | | 10400 | | 5440 | | 5570 | | 6650 | | 12100 | |
| ANTIMONY | 12 | 3.0 | 4.0 | U | 11.8 | B | 3.7 | U | 3.6 | U | 3.6 | U | 12.0 | B |
| ARSENIC | 2 | 0.40 | 2.4 | | 2.8 | | 1.4 | | 1.1 | | 2.1 | | 2.7 | |
| BARIUM | 40 | 1.0 | 114 | | 62.1 | | 24.5 | | 30.5 | | 36.8 | | 79.1 | |
| BERYLLIUM | 1 | 0.20 | 0.47 | | 0.36 | | 0.24 | U | 0.24 | U | 0.24 | U | 0.43 | |
| BORON | 10 | 10.0 | 13.2 | U | 11.4 | U | 12.2 | U | 12.0 | U | 12.0 | U | 11.6 | U |
| CADMIUM | 1 | 0.40 | 0.53 | U | 0.46 | U | 0.58 | | 0.48 | U | 0.48 | U | 0.46 | U |
| CALCIUM | 1000 | 31.4 | 4420 | | 2220 | | 7120 | | 6240 | | 6380 | | 2180 | |
| CHROMIUM | 2 | 0.60 | 27.8 | | 15.2 | | 8.6 | | 10.5 | | 11.8 | | 16.0 | |
| COBALT | 10 | 0.80 | 7.9 | | 5.4 | | 6.3 | | 4.4 | | 4.6 | | 5.8 | |
| COPPER | 5 | 0.40 | 26.1 | | 14.5 | | 18.2 | | 80.1 | | 57.9 | | 16.5 | |
| IRON | 20 | 1.0 | 19000 | | 12600 | | 8450 | | 8150 | | 12200 | | 14700 | |
| LEAD | 0.6 | 0.40/0.60 | 3.5 | B | 9.7 | | 2.3 | B | 2.1 | B | 2.7 | B | 6.8 | |
| MAGNESIUM | 1000 | 21.2 | 6430 | | 3610 | | 2410 | | 2880 | | 3170 | | 4300 | |
| MANGANESE | 3 | 0.40 | 335 | | 215 | | 115 | | 112 | | 197 | | 279 | |
| MERCURY | 0.1 | 0.10 | 0.13 | U | 0.11 | U | 0.12 | U | 0.12 | U | 0.12 | U | 0.12 | U |
| NICKEL | 8 | 2.0 | 19.1 | | 11.1 | | 7.7 | | 17.4 | | 9.4 | | 9.4 | |
| POTASSIUM | 1000 | 57.4 | 5090 | | 2450 | | 1210 | | 1530 | | 1850 | | 3070 | |
| SELENIUM | 1 | 0.60 | 0.79 | U | 0.69 | U | 0.73 | U | 0.72 | U | 0.72 | U | 0.70 | U |
| SILVER | 2 | 0.40 | 0.53 | U | 0.46 | U | 0.49 | U | 0.48 | U | 0.48 | U | 0.46 | U |
| SODIUM | 1000 | 15.4 | 548 | | 253 | | 186 | B | 201 | B | 257 | | 266 | |
| THALLIUM | 2 | 0.20 | 0.26 | B | 0.23 | U | 0.24 | U | 0.24 | U | 0.24 | U | 0.23 | U |
| VANADIUM | 10 | 1.0 | 43.5 | | 25.0 | | 12.4 | | 13.6 | | 16.6 | | 28.1 | |
| ZINC | 4 | 0.40 | 53.9 | | 36.9 | | 21.5 | | 64.9 | | 32.6 | | 38.4 | |
| % SOLIDS: | | | 75.6 | | 87.5 | | 82.0 | | 83.1 | | 83.4 | | 86.0 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | | OT-S004-1719 | | OT-S004-1921 | |
|---|---|---|---|---|---|---|
| LABORATORY ID: | | | 17743.28 | | 17743.29 | |
| TAL METALS SOILS (MG/KG) | CRDL | IDL | | | | |
| ALUMINUM | 40 | 2.8 | 6650 | | 17300 | |
| ANTIMONY | 12 | 3.0 | 3.5 | U | 6.6 | |
| ARSENIC | 2 | 0.40 | 1.4 | | 1.2 | |
| BARIUM | 40 | 1.0 | 26.2 | | 145 | |
| BERYLLIUM | 1 | 0.20 | 0.23 | U | 0.60 | |
| BORON | 10 | 10.0 | 11.7 | U | 13.0 | U |
| CADMIUM | 1 | 0.40 | 0.47 | U | 0.52 | U |
| CALCIUM | 1000 | 31.4 | 1810 | | 4190 | |
| CHROMIUM | 2 | 0.60 | 6.3 | | 21.5 | |
| COBALT | 10 | 0.80 | 2.8 | | 8.8 | |
| COPPER | 5 | 0.40 | 8.7 | | 23.8 | |
| IRON | 20 | 1.0 | 11100 | | 24000 | |
| LEAD | 0.6 | 0.40/0.60 | 2.6 | B | 3.9 | |
| MAGNESIUM | 1000 | 21.2 | 2470 | | 7430 | |
| MANGANESE | 3 | 0.40 | 158 | | 498 | |
| MERCURY | 0.1 | 0.10 | 0.12 | U | 0.13 | U |
| NICKEL | 8 | 2.0 | 6.7 | | 15.5 | |
| POTASSIUM | 1000 | 57.4 | 1830 | | 5900 | |
| SELENIUM | 1 | 0.60 | 0.70 | U | 0.78 | U |
| SILVER | 2 | 0.40 | 0.47 | U | 1.6 | U |
| SODIUM | 1000 | 15.4 | 197 | B | 417 | |
| THALLIUM | 2 | 0.20 | 0.28 | B | 0.60 | B |
| VANADIUM | 10 | 1.0 | 11.1 | | 49.8 | |
| ZINC | 4 | 0.40 | 26.7 | | 64.0 | |
| % SOLIDS: | | | 85.4 | | 76.7 | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-GW01 | | OT-GW02 | | OT-GW03 | | OT-GW04 | | OT-GW04-D | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17761.02 | | 17761.06 | | 17761.03 | | 17761.04 | | 17761.05 | |
| TCL VOLATILES WATERS (UG/L) | CRQL | | | | | | | | | | |
| CHLOROMETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BROMOMETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| VINYL CHLORIDE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| METHYLENE CHLORIDE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| ACETONE | 10 | 18 | | 10 | U | 10 | U | 10 | U | 10 | U |
| CARBON DISULFIDE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,1-DICHLOROETHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,1-DICHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,2-DICHLOROETHENE (TOTAL) | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CHLOROFORM | 10 | 18 | | 10 | U | 11 | | 10 | U | 10 | U |
| 1,2-DICHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-BUTANONE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,1,1-TRICHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CARBON TETRACHLORIDE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BROMODICHLOROMETHANE | 10 | 9 | J | 10 | U | 4 | J | 10 | U | 10 | U |
| 1,2-DICHLOROPROPANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CIS-1,3-DICHLOROPROPENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| TRICHLOROETHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| DIBROMOCHLOROMETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,1,2-TRICHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| TRANS-1,3-DICHLOROPROPENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BROMOFORM | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-METHYL-2-PENTANONE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-HEXANONE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| TETRACHLOROETHENE | 10 | 10 | U | 10 | U | 10 | U | 6 | J | 10 | U |
| 1,1,2,2-TETRACHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| TOLUENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| ETHYLBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| STYRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| XYLENE (TOTAL) | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| VINYL ACETATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-GW01 | | OT-GW02 | | OT-GW03 | | OT-GW04 | | OT-GW04-D | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17761.02 | | 17761.06 | | 17761.03 | | 17761.04 | | 17761.05 | |
| TCL SEMIVOLATILES WATERS (UG/L) | CRQL | | | | | | | | | | |
| PHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BIS(2-CHLOROETHYL)ETHER | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-CHLOROPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,3-DICHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,4-DICHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,2-DICHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-METHYLPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BIS(2-CHLOROISOPROPYL)ETHER | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-METHYLPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| N-NITROSO-DI-N-PROPYLAMINE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| HEXACHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| NITROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| ISOPHORONE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-NITROPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4-DIMETHYLPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4-DICHLOROPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,2,4-TRICHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| NAPHTHALENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-CHLOROANILINE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BIS(2-CHLOROETHOXY)METHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| HEXACHLOROBUTADIENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-CHLORO-3-METHYLPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-METHYLNAPHTHALENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| HEXACHLOROCYCLOPENTADIENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4,6-TRICHLOROPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4,5-TRICHLOROPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U | 25 | U |
| 2-CHLORONAPHTHALENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-NITROANILINE | 25 | 25 | U | 25 | U | 25 | U | 25 | U | 25 | U |
| DIMETHYL PHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| ACENAPHTHYLENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,6-DINITROTOLUENE | 10 | 10 | U | 10 | U | 0.6 | J | 10 | U | 10 | U |
| 3-NITROANILINE | 25 | 25 | U | 25 | U | 25 | U | 25 | U | 25 | U |
| ACENAPHTHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-GW01 | | OT-GW02 | | OT-GW03 | | OT-GW04 | | OT-GW04-D | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17761.02 | | 17761.06 | | 17761.03 | | 17761.04 | | 17761.05 | |
| TCL SEMIVOLATILES WATERS (UG/L) | CRQL | | | | | | | | | | |
| 2,4-DINITROPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U | 25 | U |
| 4-NITROPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U | 25 | U |
| DIBENZOFURAN | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4-DINITROTOLUENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| DIETHYLPHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-CHLOROPHENYL-PHENYLETHER | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| FLUORENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-NITROANILINE | 25 | 25 | U | 25 | U | 25 | U | 25 | U | 25 | U |
| 4,6-DINITRO-2-METHYLPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U | 25 | U |
| N-NITROSODIPHENYLAMINE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-BROMOPHENYL-PHENYLETHER | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| HEXACHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| PENTACHLOROPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U | 25 | U |
| PHENANTHRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| ANTHRACENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CARBAZOLE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| DI-N-BUTYLPHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| FLUORANTHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| PYRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BUTYLBENZYLPHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 3,3'-DICHLOROBENZIDINE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(A)ANTHRACENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CHRYSENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BIS(2-ETHYLHEXYL)PHTHALATE | 10 | 0.8 | JB | 0.9 | JB | 10 | U | 2 | JB | 6 | JB |
| DI-N-OCTYL PHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(B)FLUORANTHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(K)FLUORANTHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(A)PYRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| INDENO(1,2,3-CD)PYRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| DIBENZ(A,H)ANTHRACENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(G,H,I)PERYLENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZYL ALCOHOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZOIC ACID | 50 | 50 | U | 50 | U | 50 | U | 50 | U | 50 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-GW01 | | OT-GW02 | | OT-GW03 | | OT-GW04 | | OT-GW04-D | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17761.02 | | 17761.06 | | 17761.03 | | 17761.04 | | 17761.05 | |
| TCL PESTICIDES/PCB WATERS (UG/L) | CRQL | | | | | | | | | | |
| ALPHA-BHC | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| BETA-BHC | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| DELTA-BHC | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| GAMMA-BHC (LINDANE) | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| HEPTACHLOR | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| ALDRIN | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| HEPTACHLOR EPOXIDE | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| ENDOSULFAN I | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| DIELDRIN | 0.1 | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U |
| 4,4'-DDE | 0.1 | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U |
| ENDRIN | 0.1 | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U |
| ENDOSULFAN II | 0.1 | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U |
| 4,4'-DDD | 0.1 | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U |
| ENDOSULFAN SULFATE | 0.1 | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U |
| 4,4'-DDT | 0.1 | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U |
| METHOXYCHLOR | 0.5 | 0.50 | U | 0.50 | U | 0.50 | U | 0.50 | U | 0.50 | U |
| ENDRIN KETONE | 0.1 | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U |
| ENDRIN ALDEHYDE | 0.1 | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U | 0.10 | U |
| ALPHA-CHLORDANE | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| GAMMA-CHLORDANE | 0.05 | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U | 0.050 | U |
| TOXAPHENE | 5 | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U |
| AROCLOR-1016 | 1 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| AROCLOR-1221 | 2 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| AROCLOR-1232 | 1 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| AROCLOR-1242 | 1 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| AROCLOR-1248 | 1 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| AROCLOR-1254 | 1 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| AROCLOR-1260 | 1 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | | OT-GW01 | | OT-GW02 | | OT-GW03 | | OT-GW04 | | OT-GW04-D | | OT-GW01 DISS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | | 17761.02 | | 17761.06 | | 17761.03 | | 17761.04 | | 17761.05 | | 17761.07 | |
| TAL METAL WATERS (UG/L) | CRQL | IDL | | | | | | | | | | | | |
| ALUMINUM | 200 | 14.0 | 2060 | | 617 | | 424 | | 49.3 | | 50.4 | | 29.0 | B |
| ANTIMONY | 60 | 15.0 | 15.0 | U | 15.0 | U | 15.0 | U | 15.0 | U | 15.0 | U | 15.0 | U |
| ARSENIC | 10 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| BARIUM | 200 | 5.0 | 46.2 | | 49.2 | | 43.4 | | 103 | | 94.2 | | 41.0 | B |
| BERYLLIUM | 5 | 1.0 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| BORON | 50 | 50.0 | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U |
| CADMIUM | 5 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| CALCIUM | 5000 | 157 | 46900 | | 36800 | | 50800 | | 35600 | | 34500 | | 50100 | |
| CHROMIUM | 10 | 3.0 | 3.9 | | 3.0 | U | 6.0 | | 3.0 | U | 3.0 | U | 3.0 | U |
| COBALT | 50 | 4.0 | 4.0 | U | 4.0 | U | 4.0 | U | 4.0 | U | 4.0 | U | 4.0 | U |
| COPPER | 25 | 2.0 | 2.0 | U | 2.0 | U | 90.5 | | 2.0 | U | 2.0 | U | 2.0 | U |
| IRON | 100 | 5.0 | 2840 | | 2570 | | 658 | | 298 | | 520 | | 489 | |
| LEAD | 3 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| MAGNESIUM | 5000 | 106 | 7580 | | 5090 | | 7270 | | 6940 | | 6500 | | 7060 | |
| MANGANESE | 15 | 2.0 | 790 | | 525 | | 189 | | 36.1 | | 36.3 | | 796 | |
| MERCURY | 0.2 | 0.20 | 0.45 | | 0.20 | U | 0.20 | U | 0.20 | U | 0.20 | U | 0.20 | U |
| NICKEL | 40 | 10.0 | 10.0 | U | 11.4 | | 13.0 | | 10.0 | U | 10.0 | U | 10.0 | U |
| POTASSIUM | 5000 | 287 | 5170 | | 5150 | | 5460 | | 5780 | | 5810 | | 5240 | |
| SELENIUM | 5 | 3.0 | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U |
| SILVER | 10 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| SODIUM | 5000 | 77.0 | 33800 | | 31900 | | 29700 | | 68800 | | 63700 | | 39900 | |
| THALLIUM | 10 | 1.0 | 1.0 | U | 1.0 | U | 1.0 | U | 10.0 | U | 10.0 | U | 1.0 | U |
| VANADIUM | 50 | 5.0 | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U |
| ZINC | 20 | 2.0 | 8.0 | | 4.8 | | 22.6 | | 2.0 | U | 2.0 | U | 3.5 | B |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | | OT-GW02 DISS | | OT-GW03 DISS | | OT-GW04 DISS | | OT-GW04-D DISS | |
|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | | 17761.11 | | 17761.08 | | 17761.09 | | 17761.10 | |
| TAL METAL WATERS (UG/L) | CRQL | IDL | | | | | | | | |
| ALUMINUM | 200 | 14.0 | 14.0 | U | 31.7 | B | 35.8 | B | 28.9 | B |
| ANTIMONY | 60 | 15.0 | 15.0 | U | 15.0 | U | 15.0 | U | 15.0 | U |
| ARSENIC | 10 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| BARIUM | 200 | 5.0 | 43.3 | B | 36.8 | B | 96.6 | | 101 | |
| BERYLLIUM | 5 | 1.0 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| BORON | 50 | 50.0 | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U |
| CADMIUM | 5 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| CALCIUM | 5000 | 157 | 37200 | | 44300 | | 34900 | | 35300 | |
| CHROMIUM | 10 | 3.0 | 3.0 | U | 4.9 | | 3.0 | U | 3.0 | U |
| COBALT | 50 | 4.0 | 4.0 | U | 4.0 | U | 4.0 | U | 4.0 | U |
| COPPER | 25 | 2.0 | 2.0 | U | 2.8 | | 2.0 | U | 2.0 | U |
| IRON | 100 | 5.0 | 1640 | | 24.5 | B | 246 | | 257 | |
| LEAD | 3 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| MAGNESIUM | 5000 | 106 | 4820 | | 5500 | | 6630 | | 6720 | |
| MANGANESE | 15 | 2.0 | 505 | | 131 | | 35.7 | | 38.6 | |
| MERCURY | 0.2 | 0.20 | 0.20 | U | 0.20 | U | 0.20 | U | 0.89 | |
| NICKEL | 40 | 10.0 | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U |
| POTASSIUM | 5000 | 287 | 4690 | | 4660 | | 5440 | | 5440 | |
| SELENIUM | 5 | 3.0 | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U |
| SILVER | 10 | 2.0 | 2.0 | U | 2.1 | B | 2.6 | B | 2.0 | U |
| SODIUM | 5000 | 77.0 | 31500 | | 27400 | | 65500 | | 67100 | |
| THALLIUM | 10 | 1.0 | 1.0 | U | 1.0 | U | 10.0 | U | 10.0 | U |
| VANADIUM | 50 | 5.0 | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U |
| ZINC | 20 | 2.0 | 3.4 | B | 3.3 | B | 4.2 | B | 2.2 | B |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-GW01 | OT-GW03 | OT-GW04 | OT-GW04-D | OT-GW02 |
|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17761.02 | 17761.03 | 17761.04 | 17761.05 | 17761.06 |
| MISCELLANEOUS WATERS (MG/L) | IDL | | | | | |
| HARDNESS as CaCO3 | 1.0 | **152** | **156** | **116** | **116** | **116** |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT5-TB1 | | OT5-TB2 | | OT5-TB3 | | OT5-TB4 | | OT-RB01 | | OT-RB02 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17656.01 | | 17668.13 | | 17743.01 | | 17761.01 | | 17656.03 | | 17668.12 | |
| TCL VOLATILES FIELD QC BLANKS (UG/L) | CRQL | | | | | | | | | | | | |
| CHLOROMETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BROMOMETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| VINYL CHLORIDE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| METHYLENE CHLORIDE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| ACETONE | 10 | 10 | U | 8 | B | 10 | U | 10 | U | 8 | JB | 18 | B |
| CARBON DISULFIDE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,1-DICHLOROETHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,1-DICHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,2-DICHLOROETHENE (TOTAL) | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CHLOROFORM | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,2-DICHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-BUTANONE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,1,1-TRICHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CARBON TETRACHLORIDE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BROMODICHLOROMETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,2-DICHLOROPROPANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CIS-1,3-DICHLOROPROPENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| TRICHLOROETHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| DIBROMOCHLOROMETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,1,2-TRICHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| TRANS-1,3-DICHLOROPROPENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BROMOFORM | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-METHYL-2-PENTANONE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-HEXANONE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| TETRACHLOROETHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,1,2,2-TETRACHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| TOLUENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| CHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| ETHYLBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| STYRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| XYLENE (TOTAL) | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| VINYL ACETATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT5-RB03 | | OT5-RB04 | |
|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.02 | | 17743.03 | |
| TCL VOLATILES FIELD QC BLANKS (UG/L) | CRQL | | | | |
| CHLOROMETHANE | 10 | 10 | U | 10 | U |
| BROMOMETHANE | 10 | 10 | U | 10 | U |
| VINYL CHLORIDE | 10 | 10 | U | 10 | U |
| CHLOROETHANE | 10 | 10 | U | 10 | U |
| METHYLENE CHLORIDE | 10 | 10 | U | 10 | U |
| ACETONE | 10 | 10 | U | 4 | J |
| CARBON DISULFIDE | 10 | 10 | U | 10 | U |
| 1,1-DICHLOROETHENE | 10 | 10 | U | 10 | U |
| 1,1-DICHLOROETHANE | 10 | 10 | U | 10 | U |
| 1,2-DICHLOROETHENE (TOTAL) | 10 | 10 | U | 10 | U |
| CHLOROFORM | 10 | 10 | U | 10 | U |
| 1,2-DICHLOROETHANE | 10 | 10 | U | 10 | U |
| 2-BUTANONE | 10 | 10 | U | 10 | U |
| 1,1,1-TRICHLOROETHANE | 10 | 10 | U | 10 | U |
| CARBON TETRACHLORIDE | 10 | 10 | U | 10 | U |
| BROMODICHLOROMETHANE | 10 | 10 | U | 10 | U |
| 1,2-DICHLOROPROPANE | 10 | 10 | U | 10 | U |
| CIS-1,3-DICHLOROPROPENE | 10 | 10 | U | 10 | U |
| TRICHLOROETHENE | 10 | 10 | U | 10 | U |
| DIBROMOCHLOROMETHANE | 10 | 10 | U | 10 | U |
| 1,1,2-TRICHLOROETHANE | 10 | 10 | U | 10 | U |
| BENZENE | 10 | 10 | U | 10 | U |
| TRANS-1,3-DICHLOROPROPENE | 10 | 10 | U | 10 | U |
| BROMOFORM | 10 | 10 | U | 10 | U |
| 4-METHYL-2-PENTANONE | 10 | 10 | U | 10 | U |
| 2-HEXANONE | 10 | 10 | U | 10 | U |
| TETRACHLOROETHENE | 10 | 10 | U | 10 | U |
| 1,1,2,2-TETRACHLOROETHANE | 10 | 10 | U | 10 | U |
| TOLUENE | 10 | 10 | U | 10 | U |
| CHLOROBENZENE | 10 | 10 | U | 10 | U |
| ETHYLBENZENE | 10 | 10 | U | 10 | U |
| STYRENE | 10 | 10 | U | 10 | U |
| XYLENE (TOTAL) | 10 | 10 | U | 10 | U |
| VINYL ACETATE | 10 | 10 | U | 10 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-RB01 | | OT-RB02 | | OT5-RB03 | | OT5-RB04 | |
|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17656.03 | | 17668.12 | | 17743.02 | | 17743.03 | |
| TCL SEMIVOLATILES FIELD QC BLANKS (UG/L) | CRQL | | | | | | | | |
| PHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BIS(2-CHLOROETHYL)ETHER | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-CHLOROPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,3-DICHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,4-DICHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,2-DICHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-METHYLPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BIS(2-CHLOROISOPROPYL)ETHER | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-METHYLPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| N-NITROSO-DI-N-PROPYLAMINE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| HEXACHLOROETHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| NITROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| ISOPHORONE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-NITROPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4-DIMETHYLPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4-DICHLOROPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 1,2,4-TRICHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| NAPHTHALENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-CHLOROANILINE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BIS(2-CHLOROETHOXY)METHANE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| HEXACHLOROBUTADIENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-CHLORO-3-METHYLPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-METHYLNAPHTHALENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| HEXACHLOROCYCLOPENTADIENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4,6-TRICHLOROPHENOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4,5-TRICHLOROPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U |
| 2-CHLORONAPHTHALENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2-NITROANILINE | 25 | 25 | U | 25 | U | 25 | U | 25 | U |
| DIMETHYL PHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| ACENAPHTHYLENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,6-DINITROTOLUENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 3-NITROANILINE | 25 | 25 | U | 25 | U | 25 | U | 25 | U |
| ACENAPHTHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT-RB01 | | OT-RB02 | | OT5-RB03 | | OT5-RB04 | |
|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | 17656.03 | | 17668.12 | | 17743.02 | | 17743.03 | |
| TCL SEMIVOLATILES FIELD QC BLANKS (UG/L) | CRQL | | | | | | | | |
| 2,4-DINITROPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U |
| 4-NITROPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U |
| DIBENZOFURAN | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 2,4-DINITROTOLUENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| DIETHYLPHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-CHLOROPHENYL-PHENYLETHER | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| FLUORENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-NITROANILINE | 25 | 25 | U | 25 | U | 25 | U | 25 | U |
| 4,6-DINITRO-2-METHYLPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U |
| N-NITROSODIPHENYLAMINE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 4-BROMOPHENYL-PHENYLETHER | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| HEXACHLOROBENZENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| PENTACHLOROPHENOL | 25 | 25 | U | 25 | U | 25 | U | 25 | U |
| PHENANTHRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| ANTHRACENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| CARBAZOLE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| DI-N-BUTYLPHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| FLUORANTHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| PYRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BUTYLBENZYLPHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| 3,3'-DICHLOROBENZIDINE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(A)ANTHRACENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| CHRYSENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BIS(2-ETHYLHEXYL)PHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 1 | JB |
| DI-N-OCTYL PHTHALATE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(B)FLUORANTHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(K)FLUORANTHENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(A)PYRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| INDENO(1,2,3-CD)PYRENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| DIBENZ(A,H)ANTHRACENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZO(G,H,I)PERYLENE | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZYL ALCOHOL | 10 | 10 | U | 10 | U | 10 | U | 10 | U |
| BENZOIC ACID | 50 | 50 | U | 50 | U | 50 | U | 50 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | OT5-RB03 | | OT5-RB04 | |
|---|---|---|---|---|---|
| LABORATORY ID: | | 17743.02 | | 17743.03 | |
| TCL PESTICIDES/PCB FIELD QC BLANKS (UG/L) | CRQL | | | | |
| ALPHA-BHC | 0.05 | 0.050 | U | 0.050 | U |
| BETA-BHC | 0.05 | 0.050 | U | 0.050 | U |
| DELTA-BHC | 0.05 | 0.050 | U | 0.050 | U |
| GAMMA-BHC (LINDANE) | 0.05 | 0.050 | U | 0.050 | U |
| HEPTACHLOR | 0.05 | 0.050 | U | 0.050 | U |
| ALDRIN | 0.05 | 0.050 | U | 0.050 | U |
| HEPTACHLOR EPOXIDE | 0.05 | 0.050 | U | 0.050 | U |
| ENDOSULFAN I | 0.05 | 0.050 | U | 0.050 | U |
| DIELDRIN | 0.1 | 0.10 | U | 0.10 | U |
| 4,4'-DDE | 0.1 | 0.10 | U | 0.10 | U |
| ENDRIN | 0.1 | 0.10 | U | 0.10 | U |
| ENDOSULFAN II | 0.1 | 0.10 | U | 0.10 | U |
| 4,4'-DDD | 0.1 | 0.10 | U | 0.10 | U |
| ENDOSULFAN SULFATE | 0.1 | 0.10 | U | 0.10 | U |
| 4,4'-DDT | 0.1 | 0.10 | U | 0.10 | U |
| METHOXYCHLOR | 0.5 | 0.50 | U | 0.50 | U |
| ENDRIN KETONE | 0.1 | 0.10 | U | 0.10 | U |
| ENDRIN ALDEHYDE | 0.1 | 0.10 | U | 0.10 | U |
| ALPHA-CHLORDANE | 0.05 | 0.050 | U | 0.050 | U |
| GAMMA-CHLORDANE | 0.05 | 0.050 | U | 0.050 | U |
| TOXAPHENE | 5 | 5.0 | U | 5.0 | U |
| AROCLOR-1016 | 1 | 1.0 | U | 1.0 | U |
| AROCLOR-1221 | 2 | 2.0 | U | 2.0 | U |
| AROCLOR-1232 | 1 | 1.0 | U | 1.0 | U |
| AROCLOR-1242 | 1 | 1.0 | U | 1.0 | U |
| AROCLOR-1248 | 1 | 1.0 | U | 1.0 | U |
| AROCLOR-1254 | 1 | 1.0 | U | 1.0 | U |
| AROCLOR-1260 | 1 | 1.0 | U | 1.0 | U |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| CLIENT ID: | | | OT-RB01 | | OT-RB02 | | OT5-RB03 | | OT5-RB04 | | OT-RB04 DISS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORATORY ID: | | | 17656.03 | | 17668.12 | | 17743.02 | | 17743.03 | | 17743.06 | |
| TAL METALS FIELD QC BLANKS (UG/L) | CRDL | IDL | | | | | | | | | | |
| ALUMINUM | 200 | 14.0 | 18.0 | B | 23.6 | B | **55.0** | | **86.4** | | **15.5** | |
| ANTIMONY | 60 | 15.0 | 15.0 | U | 15.0 | U | 15.0 | U | 15.0 | U | 15.0 | U |
| ARSENIC | 10 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| BARIUM | 200 | 5.0 | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U |
| BERYLLIUM | 5 | 1.0 | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U | 1.0 | U |
| BORON | 50 | 50.0 | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U | 50.0 | U |
| CADMIUM | 5 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| CALCIUM | 5000 | 157 | 157 | U | 157 | U | 157 | U | 157 | U | 157 | U |
| CHROMIUM | 10 | 3.0 | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U | 3.0 | U |
| COBALT | 50 | 4.0 | 4.0 | U | 4.0 | U | 4.0 | U | 4.0 | U | 4.0 | U |
| COPPER | 25 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | **22.7** | | **13.9** | |
| IRON | 100 | 5.0/50.0 | 50.0 | U | 50.0 | U | **46.9** | | **24.5** | | **10.9** | |
| LEAD | 3 | 1.0/2.0 | 1.0 | U | 1.0 | U | 3.0 | B | 4.4 | B | 3.2 | B |
| MAGNESIUM | 5000 | 106 | 106 | U | 106 | U | 106 | U | 106 | U | 106 | U |
| MANGANESE | 15 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| MERCURY | 0.2 | 0.20 | 0.20 | U | 0.20 | U | 0.20 | U | **0.65** | | **0.82** | |
| NICKEL | 40 | 10.0 | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U |
| POTASSIUM | 5000 | 287 | 287 | U | 287 | U | 287 | U | 287 | U | 287 | U |
| SELENIUM | 5 | 1.0/3.0 | 1.0 | U | 1.0 | U | 3.0 | U | 3.0 | U | 3.0 | U |
| SILVER | 10 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| SODIUM | 5000 | 77.0 | 77.0 | U | 77.0 | U | 77.0 | U | **203** | | **148** | |
| THALLIUM | 10 | 1.0 | 1.1 | B | 1.0 | U | **3.6** | | 1.0 | U | 1.0 | U |
| VANADIUM | 50 | 5.0 | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U |
| ZINC | 20 | 2.0 | **2.3** | | 2.0 | U | 14.4 | B | **39.5** | | **28.5** | |

SITE: CTO 129, NSB-NEW LONDON
LABORATORY: SOUTHWEST LABORATORY OF OKLAHOMA

| | | |
|---|---|---|
| CLIENT ID: | | OT5-RB04 |
| LABORATORY ID: | | 17743.03 |
| MISCELLANEOUS FIELD QC BLANKS (MG/L) | IDL | |
| HARDNESS as CaCO3 | 1.0 | 2 |

# APPENDIX D

# SOIL SCREENING LEVELS

Calculation of Soil Screening Levels (USEPA, Office of Solid Waste and Emergency Response, September 1993)



| Chemical | (1) RfDo (mg/kg/day) | (1) RfDi (mg/kg/day) | (1) SFo (kd-day/mg) | (1) SFi (kd-day/mg) | (2) Federal MCL (mg/L) | (3) Solubility (mg/L) | (3) Koc (L/kg) | (3) H (atm-m3/mol) | Vi (cm3/mol) | MW (g/mol) | Di (cm2/sec) | Dei (cm2/sec) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 1.00E-01 | 3.00E-01 | | | 7.00E-01 | 1.52E+02 | 1.10E+03 | 6.60E-03 | 1.32E+02 | 106.16 | 7.37E-02 | 5.92E-03 |
| Xylenes | 2.00E+00 | 9.00E-02 | | | 1.00E+01 | 1.59E+02 | 8.70E+02 | 6.82E-03 | 1.32E+02 | 106.16 | 7.37E-02 | 5.92E-03 |
| Methylene chloride | 6.00E-02 | 9.00E-01 | 7.50E-03 | 1.60E-03 | 5.00E-03 | 2.00E+04 | 8.80E+00 | 2.03E-03 | 5.95E+01 | 84.94 | 1.05E-01 | 8.43E-03 |
| Di-n-butylphthalate | 1.00E-01 | | | | | 1.30E+01 | 1.70E+05 | 2.80E-07 | 3.09E+02 | 278.3 | 4.66E-02 | 3.74E-03 |
| Benzo(a)anthracene | | | 1.10E+00 | | 1.00E-04 | 5.70E-03 | 2.00E+05 | 1.00E-06 | | 228.28 | 0.00E+00 | 0.00E+00 |
| Chrysene | | | 3.20E-02 | | 2.00E-04 | 1.80E-03 | 2.00E+05 | 1.05E-06 | | 228.3 | 0.00E+00 | 0.00E+00 |
| Fluorene | 4.00E-02 | | | | | 1.69E+00 | 7.30E+03 | 6.40E-05 | | 116.2 | 0.00E+00 | 0.00E+00 |
| Naphthalene | 4.00E-03 | | | | | 3.17E+01 | 9.40E+02 | 4.60E-04 | 1.40E+02 | 128.2 | 7.04E-02 | 5.65E-03 |
| 2-Methylnaphthalene | 2.00E-02 | | | | | | | 4.60E-04 | | 142.2 | 0.00E+00 | 0.00E+00 |
| Pyrene | 3.00E-02 | | | | | 1.30E-01 | 3.80E+04 | 5.10E-06 | | 202.3 | 0.00E+00 | 0.00E+00 |
| 4,4'-DDT | 5.00E-04 | | 3.40E-01 | 3.40E-01 | | 5.50E-03 | 3.90E+06 | 1.58E-05 | | 354.5 | 0.00E+00 | 0.00E+00 |
| 4,4'-DDE | | | 3.40E-01 | | | 4.00E-02 | 4.40E+06 | 6.80E-05 | | 318 | 0.00E+00 | 0.00E+00 |
| 4,4'-DDD | | | 2.40E-01 | | | 6.00E-02 | 7.70E+05 | 2.20E-08 | | 320 | 0.00E+00 | 0.00E+00 |
| Benzoic acid | 4.00E+00 | | | | | 2.90E+03 | 1.50E+02 | 7.00E-08 | | 122.13 | 0.00E+00 | 0.00E+00 |
| Antimony | 4.00E-04 | | | | 6.00E-03 | | | | | 121.75 | 0.00E+00 | 0.00E+00 |
| Arsenic | 3.00E-04 | | 1.80E+00 | 1.50E+01 | 5.00E-02 | | | | | 74.92 | 0.00E+00 | 0.00E+00 |
| Barium | 7.00E-02 | 1.00E-04 | | | 2.00E+00 | | | | | 137.34 | 0.00E+00 | 0.00E+00 |
| Beryllium | 5.00E-03 | | 4.30E+00 | 8.40E+00 | 4.00E-03 | | | | | 9.01 | 0.00E+00 | 0.00E+00 |
| Chromium (III) | 1.00E+00 | | | | 1.00E-01 | | | | | 52 | 0.00E+00 | 0.00E+00 |
| Chromium (VI) | 5.00E-03 | | | 4.20E+01 | 1.00E-01 | | | | | 52 | 0.00E+00 | 0.00E+00 |
| Cobalt | 8.00E-03 | | | | | | | | | 58.93 | 0.00E+00 | 0.00E+00 |
| Copper | 4.00E-02 | | | | 1.30E+00 | | | | | 63.54 | 0.00E+00 | 0.00E+00 |
| Lead | | | | | 1.50E-02 | | | | | 207.19 | 0.00E+00 | 0.00E+00 |
| Manganese | 1.00E-01 | 1.00E-04 | | | | | | | | 54.94 | 0.00E+00 | 0.00E+00 |
| Nickel | 2.00E-02 | | | 8.40E-01 | 1.00E-01 | | | | | 58.71 | 0.00E+00 | 0.00E+00 |
| Vanadium | 7.00E-03 | | | | | | | | | 50.94 | 0.00E+00 | 0.00E+00 |
| Zinc | 3.00E-01 | | | | | | | | | 65.37 | 0.00E+00 | 0.00E+00 |

| Chemical | Kas (g/cm3) | Alpha (cm2/sec) | VF (m3/kg) | URF (1) (ug/m3)-1 | RfC (1) (mg/m3) | Csat (4) (mg/kg) | Pathway-specific Soil Screening Levels (mg/kg) (5) Inhalation of Fugitive Dust: Carcinogens | Inhalation of Fugitive Dust: Noncarcinogens | Ingestion of Soil: Carcinogens | Ingestion of Soil: Noncarcinogens | (6) Groundwater |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 1.23E-02 | 1.09E-05 | 4.05E+04 | NA | 1.05E+00 | 3.37E+02 | NA | 4.43E+04 | NA | 7.82E+03 | 1.81E+01 |
| Xylenes | 1.61E-02 | 1.42E-05 | 3.54E+04 | NA | 3.15E-01 | 2.79E+02 | NA | 1.16E+04 | NA | 1.56E+05 | 1.84E+02 |
| Methylene chloride | 4.73E-01 | 5.57E-04 | 5.28E+03 | 4.57E-07 | 3.15E+00 | 5.84E+02 | 2.81E+01 | 1.74E+04 | 8.54E+01 | 4.69E+03 | 2.26E-03 |
| Di-n-butylphthalate | 3.38E-09 | 1.89E-12 | 9.72E+07 | NA | NA | 4.43E+03 | NA | NA | NA | 7.82E+03 | NA |
| Benzo(a)anthracene | 1.03E-08 | 0.00E+00 | 0.00E+00 | NA | NA | 2.28E+00 | NA | NA | 5.82E-01 | NA | 4.00E-01 |
| Chrysene | 1.08E-08 | 0.00E+00 | 0.00E+00 | NA | NA | 7.20E-01 | NA | NA | 2.00E+01 | NA | 6.00E-01 |
| Fluorene | 1.80E-05 | 0.00E+00 | 0.00E+00 | NA | NA | 2.47E+01 | NA | NA | NA | 3.13E+03 | NA |
| Naphthalene | 1.00E-03 | 8.48E-07 | 1.45E+05 | NA | NA | 5.99E+01 | NA | NA | NA | 3.13E+02 | NA |
| 2-Methylnaphthalene | | | 0.00E+00 | NA | NA | NA | NA | NA | NA | 1.56E+03 | NA |
| Pyrene | 2.75E-07 | 0.00E+00 | 0.00E+00 | NA | NA | 9.88E+00 | NA | NA | NA | 2.35E+03 | NA |
| 4,4'-DDT | 8.31E-09 | 0.00E+00 | 0.00E+00 | 9.71E-05 | NA | 4.29E+01 | 1.13E+04 | NA | 1.88E+00 | 3.91E+01 | NA |
| 4,4'-DDE | 3.17E-08 | 0.00E+00 | 0.00E+00 | NA | NA | 3.52E+02 | NA | NA | 1.88E+00 | NA | NA |
| 4,4'-DDD | 5.86E-11 | 0.00E+00 | 0.00E+00 | NA | NA | 9.24E+01 | NA | NA | 2.07E+00 | NA | NA |
| Benzoic acid | 9.57E-07 | 0.00E+00 | 0.00E+00 | NA | NA | 8.99E+02 | NA | NA | NA | 3.13E+05 | NA |
| Antimony | | | 0.00E+00 | NA | NA | NA | NA | NA | NA | 3.13E+01 | |
| Arsenic | | | 0.00E+00 | 4.29E-03 | NA | NA | 2.56E+02 | NA | 9.56E-01 | 2.35E+01 | 1.40E+01 |
| Barium | | | 0.00E+00 | NA | 3.50E-04 | NA | NA | 1.65E+05 | NA | 5.48E+03 | |
| Beryllium | | | 0.00E+00 | 2.40E-03 | NA | NA | 4.57E+02 | NA | 1.49E-01 | 3.91E+02 | |
| Chromium (III) | | | 0.00E+00 | NA | NA | NA | NA | NA | NA | 7.82E+03 | |
| Chromium (VI) | | | 0.00E+00 | 1.20E-02 | NA | NA | 8.15E+01 | NA | NA | 3.91E+02 | 1.90E+01 |
| Cobalt | | | 0.00E+00 | NA | NA | NA | NA | NA | NA | 6.26E+02 | |
| Copper | | | 0.00E+00 | NA | NA | NA | NA | NA | NA | 3.13E+05 | |
| Lead | | | 0.00E+00 | NA | NA | NA | NA | NA | NA | NA | |
| Manganese | | | 0.00E+00 | NA | 3.50E-04 | NA | NA | 1.65E+05 | NA | 7.82E+03 | |
| Nickel | | | 0.00E+00 | 2.40E-04 | NA | NA | 4.57E+03 | NA | NA | 1.56E+03 | 8.20E+01 |
| Vanadium | | | 0.00E+00 | NA | NA | NA | NA | NA | NA | 5.48E+02 | |
| Zinc | | | 0.00E+00 | NA | NA | NA | NA | NA | NA | 2.35E+04 | |

Footnotes:
(1) Oral and inhalation Reference Doses (RfDs) and Cancer Slope Factors (SFs) and inhalation Unit Risk Factors (URFs) and Reference Concentrations (RfCs) obtained from USEPA IRIS on-line data base or USEPA HEAST.
(2) Maximum Contaminant Level, Safe Drinking Water Act (USEPA, December 1993). The value listed for copper is an Action Level.
(3) Solubilities, organic partition coefficients (Kocs), and Henry's Law constants (Hs) (USEPA, December 1982 and USEPA, September 1992).
(4) For the inhalation pathway, the soil saturation limit (Csat) is chosen as the SSL when calculated SSLs for the inhalation of fugitive dust exceed Csat.
(5) Soil Screening Levels (SSLs) calculated according to the methodologies provided in USEPA, September 1993.
(6) Values based on a recommended Dilution and Attenuation Factor (DAF) of 10 (USEPA, September 1993). SSLs associated with the migration of groundwater could not be calculated for metals because of unavailability of Koc/Kd values. The values presented for selected metals were proposed in the referenced guidance document.

Note: Calculated SSLs may differ from the SSLs presented in the referenced guidance document since estimates are dependent on literature values for solubility, Koc, and H. Shaded values were used as SSLs.

**Equation 1: Screening Level Equation for Ingestion of Noncarcinogenic Contaminants in Residential Soil**

$$\text{Screening Level (mg/kg)} = \frac{THQ \times BW \times AT \times 365\ d/yr}{1/RfD_o \times 10^{-6}\ kg/mg \times EF \times ED \times IR}$$

| Parameter/Definition (units) | Default |
|---|---|
| THQ/target hazard quotient (unitless) | 1 |
| $RfD_o$ /oral reference dose (mg/kg-d) | Chemical-specific |
| BW/body weight (kg) | 15 |
| AT/averaging time (yr) | 6[a] |
| EF/exposure frequency (d/yr) | 350 |
| ED/exposure duration (yr) | 6 |
| IR/soil ingestion rate (mg/d)[2] | 200 |

[a] For noncarcinogens, Averaging Time is equal to Exposure Duration.

**Equation 2: Screening Level Equation for Ingestion of Carcinogenic Contaminants in Residential Soil**

$$\text{Screening Level (mg/kg)} = \frac{TR \times AT \times 365\ d/yr}{SF_o \times 10^{-6}\ kg/mg \times EF \times IF_{soil\,age}}$$

| Parameter/Definition (units) | Default |
|---|---|
| TR/target cancer risk (unitless) | $10^{-6}$ |
| $SF_o$ /oral slope factor $(mg/kg\text{-}d)^{-1}$ | Chemical-specific |
| AT/averaging time (yr) | 70 |
| EF/exposure frequency (d/yr) | 350 |
| $IF_{soil\,age}$ /age-adjusted soil ingestion factor (mg-yr/kg-d) | 114 |

**Equation 3: Screening Level Equation for Inhalation of Carcinogenic Contaminants in Residential Soil**

$$\text{Screening Level (mg/kg)} = \frac{TR \times AT \times 365\ d/yr}{URF \times 1000\ \mu g/mg \times EF \times ED \times \left[\frac{1}{VF} + \frac{1}{PEF}\right]}$$

| Parameter/Definition (units) | Default |
|---|---|
| TR/target cancer risk (unitless) | $10^{-6}$ |
| URF/inhalation unit risk factor $(\mu g/m^3)^{-1}$ | Chemical-specific |
| AT/averaging time (yr) | 70 |
| EF/exposure frequency (d) | 350 |
| ED/exposure duration (yr) | 30 |
| VF/soil-to-air volatilization factor $(m^3/kg)$ | Chemical-specific |
| PEF/particulate emission factor $(m^3/kg)$ | $4.51 \times 10^9$ |

**Equation 4: Screening Level Equation for Inhalation of Noncarcinogenic Contaminants in Residential Soil**

$$\text{Screening Level (mg/kg)} = \frac{THQ \times AT \times 365\ d/yr}{EF \times ED \times \left[\frac{1}{RfC} \times \left(\frac{1}{VF} + \frac{1}{PEF}\right)\right]}$$

| Parameter/Definition (units) | Default |
|---|---|
| THQ/target hazard quotient (unitless) | 1 |
| AT/averaging time (yr) | 30 |
| EF/exposure frequency (d) | 350 |
| ED/exposure duration (yr) | 30 |
| RfC/inhalation reference concentration $(mg/m^3)$ | Chemical-specific |
| VF/soil-to-air volatilization factor $(m^3/kg)$ | Chemical-specific |
| PEF/particulate emission factor $(m^3/kg)$ | $4.7 \times 10^9$ |

## Equation 5: Derivation of the Volatilization Factor

$$VF\ (m^3/kg) = (Q/C) \times \frac{(3.14 \times \alpha \times T)^{1/2}}{(2 \times D_{ei} \times P_a \times K_{sa})} \times 10^{-4} m^2/cm^2$$

where:

$$\alpha = \frac{D_{ei} \times P_a}{P_a + (\rho_s)(1 - P_a/K_{sa})}$$

| Parameter/Definition (units) | Default |
|---|---|
| VF/volatilization factor ($m^3$/kg) | -- |
| (Q/C)/inverse of the mean conc. at the center of a 0.5-acre square source ($g/m^2$-s per $kg/m^3$) | 101.8 |
| $D_{ei}$ /effective diffusivity ($cm^2$/s) | $D_i(P_a^{3.33}/P_t^2)$ |
| $P_a$ /air filled soil porosity (unitless) | $P_t$-$\Theta\beta$ |
| $P_t$ /total soil porosity (unitless) | 1-($\beta/\rho_s$) |
| $\Theta$/soil moisture content ($cm^3$-water/g-soil) | 10% or 0.1 |
| $\beta$/soil bulk density ($g/cm^3$) | 1.5 |
| $\rho_s$ /true soil density or particle density ($g/cm^3$) | 2.65 |
| $K_{sa}$ /soil-air partition coefficient (g-soil/$cm^3$-air) | ($H/K_d$) x 41 (41 is a conversion factor) |
| T/exposure interval (s) | 7.9 x $10^8$ s |
| $D_i$ /diffusivity in air ($cm^2$/s) | Chemical-specific |
| H/Henry's law constant (atm-$m^3$/mol) | Chemical-specific |
| $K_d$ /soil-water partition coefficient ($cm^3$/g) | $K_{oc}$ x OC |
| $K_{oc}$ /organic carbon partition coefficient ($cm^3$/g) | Chemical-specific |
| OC/organic carbon content of soil (fraction) | 2% or 0.02 |

## Equation 6: Derivation of the Soil Saturation Limit

$$C_{sat} = \frac{(K_d \times C_w \times \beta) + (C_w \times P_w) + (C_w \times H' \times P_a)}{\beta}$$

| Parameter/Definition (units) | Default |
|---|---|
| $C_{sat}$/soil saturation concentration (mg/kg) | -- |
| $K_d$/soil-water partition coefficient (L/kg) | $K_{oc}$ x OC |
| $K_{oc}$ /organic carbon partition coefficient (L/kg) | Chemical-specific |
| OC/organic carbon content of soil (fraction) | 2% or 0.02 |
| $C_w$ /upper-limit of free moisture in soil (mg/L-water) | S x $\Theta_m$ |
| $\Theta_m$ /soil moisture content (kg-water/kg-soil) | 10% or 0.1 |
| S/solubility in water (mg/L-water) | Chemical-specific |
| $\beta$/soil bulk density (kg/L) | 1.5 |
| $P_w$ /water-filled soil porosity (unitless) | $P_t$ - $P_a$ |
| H'/Henry's law constant (unitless) | H x 41, where 41 is a conversion factor |
| H/Henry's law constant (atm-$m^3$/mol) | Chemical-specific |
| $P_a$ /air-filled soil porosity (unitless) | $P_t$ - $\Theta\beta$ |
| $\Theta$/soil moisture content (L-water/kg soil) | 10% or 0.1 |
| $P_t$ /total soil porosity (unitless) | 1 - ($\beta/\rho_s$) |
| $\rho_s$ /true soil density or particle density (kg/L) | 2.65 |

## Equation 7: Derivation of the Particulate Emission Factor

$$PEF(m^3/kg) = (Q/C) \times \frac{3600 s/h}{0.036 \times (1-G) \times (U_m/U_t)^3 \times F(x)}$$

| Parameter/Definition (units) | Default |
|---|---|
| PEF/particulate emission factor ($m^3$/kg) | 4.7 x $10^9$ |
| (Q/C)/inverse of the mean conc. at the center of a 0.5-acre, square source ($g/m^2$-s per $kg/m^3$) | 101.8 |
| 0.036/respirable fraction ($g/m^2$-h) | 0.036 |
| G/fraction of vegetative cover (unitless) | 0 |
| $U_m$ /mean annual wind speed (m/s) | 4.5 |
| $U_t$ /equivalent threshold value of wind speed at 10 m (m/s) | 12.8 |
| F(x)/function dependent on $U_m/U_t$ derived using Cowherd (1985) (unitless) | 0.0497 |

## Equation 8: Soil Screening Level Partitioning Equation for Migration to Groundwater

$$\text{Screening Level in Soil (mg/kg)} = C_w[(K_{oc} \times f_{oc}) + (\theta \times S/BD)]$$

| Parameter/Definition (units) | Default |
|---|---|
| $C_w$/acceptable groundwater limit (mg/L) | MCL |
| $K_{oc}$ /organic carbon partitioning coefficient (L/kg) | Chemical-specific |
| $f_{oc}$ /fraction of organic carbon in soil (unitless) | 0.002 |
| $\Theta$/soil porosity ($L_{pore}/L_{soil}$) | 0.5 |
| S/fraction water content ($L_{water}/L_{pore}$) | 0.3 |
| BD/soil bulk density ($kg/L_{soil}$) | 1.5 |