

# BARENCO INC.

## Soil Remediation Program

2202 3rd Avenue East  
Owen Sound, Ontario

April 11, 2008

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For

**Rafa Corporation**

1810 Midland Avenue  
Toronto, Ontario  
M1P 3C2

*Original*

By

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## **1.0 INTRODUCTION**

### **1.1 Terms of Reference**

Barenco Inc. was retained by Rafa Corporation to perform a soil remediation program at the former Russel Brothers property located 2202 3rd Avenue East in Owen Sound, Ontario. The property is legally described as "In the City of Owen Sound, County of Grey and being composed of Part of the Bed of Owen's Sound, in front of Lots 7 to 10 inclusive, Bay Shore Range, now designated as Part 2, Plan 16R-5822". Previous environmental assessments have been performed at the property by others.

The assessment standards for the site were determined using the Ministry of the Environment's (MOE) *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*, March 9, 2004 (Standards) referenced by the Ontario Record of Site Condition Regulation (Regulation 153/04). Soil samples were properly collected, preserved and submitted to a Canadian Accredited Environmental Analytical Laboratory (CAEAL).

The scope of work for the soil remediation program was based on the previous environmental assessments that indicated soil exceeded the Ministry of Environment (MOE) Table 3 Standards for properties with a residential land use.

Barenco performed the soil remediation program in accordance with generally accepted professional practices. Subject to this standard of care, Barenco makes no expressed or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third party reliance are outlined in Section 6.0 of this report. Terms and Conditions are attached in Appendix A.

### **1.2 Site Location and Features**

The property is located to the south of 24<sup>th</sup> Street East and to the north of 18<sup>th</sup> Street East on the west side of 3<sup>rd</sup> Avenue East in Owen Sound, Ontario. The subject property occupies an area of approximately 5.5 hectares (13.5 acres) and is bordered by Georgian Bay to the west. Concrete pads and foundation footings surrounded by paved and gravel driveways of the former industrial buildings were observed on the property. The remainder of the property was covered in vegetation at the time of the site visit. The property is currently vacant. A locality plan is provided as Figure 1.

## **2.0 ENVIRONMENTAL SETTING**

### **2.1 Soils, Drainage and Bedrock**

The property is located in the physiographic region known as the Niagara Escarpment. Vertical cliffs that are located along the top of the escarpment outline the edge of the dolostone of the Lockport and Amabel Formations while the slopes below are carved in red shale. The surface soils in this area are shallow and are composed of glacial till (sandy silt) on top of red shale (*Physiography of Southern Ontario*, Chapman and Putnam, 1984).

The hydraulic conductivity of the native soil (sandy silt till) at the site was measured to be approximately  $10^{-5}$  cm/s (CG&S, 1997).

Table 1 summarizes the site environmental setting data. Table 2 shows Darcy's Law Calculations.

### **2.2 Ground Water and Municipal Services**

The inferred regional ground water flow direction is northwest toward the Owen Sound Harbour, located to the west of the property.

The property is not currently serviced with municipal water or sewer systems.

### **2.3 Land Use**

The property is currently vacant and is scheduled for future re-development. The intended land use is residential.

## **3.0 REMEDIATION CRITERIA**

### **3.1 Ontario Regulation 153/04**

Ontario Regulation 153/04 under Part XV.1 of the *Environmental Protection Act* is intended for the assessment and restoration of sites in Ontario. Regulation 153/04 provides generic remediation standards based on land use (agricultural, residential, parkland, institutional, commercial, industrial or community), ground water use (potable or non-potable), soil type (coarse or fine to medium textured) and restoration depth (full or stratified restoration).

Regulation 153/04 also provides alternate methods for assessment and remediation based on either restoring soil and ground water to background conditions or the use of a risk assessment. Generic standards for both soil and ground water are outlined in a document entitled *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*.

The Standards provide assessment standards based on land use (agricultural, residential, parkland, institutional, industrial, commercial or community), ground water use (potable or non-potable), soil type (coarse or medium to fine textured) and restoration depth (full or stratified restoration).

Assessment standards for both soil and ground water are outlined in the Standards as follows:

- Table 1 - Full depth background site condition standards (e.g. sensitive site)
- Table 2 - Full depth generic site condition standards in a potable ground water condition
- Table 3 - Full depth generic site condition standards in a non-potable ground water condition
- Table 4 - Stratified site condition standards in a potable ground water condition
- Table 5 - Stratified site condition standards in a non-potable ground water condition
- Table 6 - Soil extract and ground water standards to determine whether a property is a “shallow soil property”

### **3.2 Site Remediation Standards**

Based on the environmental setting and proposed residential development, the property is classified as having a residential/parkland land use with a non-potable ground water condition. The native soil at the site is a sandy silt of fine and medium texture. The standards outlined in Table 3 and 5 of the MOE *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* are appropriate for this site.

The Table 3 and 5 site classification is based on several factors including the absence of potable water use in the area, the future land use (residential), previous reports indicating the hydraulic conductivity of approximately  $10^{-5}$  cm/s (representing medium/fine soil) and test hole logs.

## 4.0 SITE REMEDIATION

Based on the results of previous environmental assessments, the following soil exceedances of the MOE Table 3 Standard (or MOEE Table B Guideline Criteria (1996)) found at SM1, SM4, HH8, TP104-B, MW1, TP15-B, TP1, TP2, TP3, TP4 and TP6 require remediation to bring soil concentrations to levels that are within the MOE Table 3 Standards. Figure 2, attached, shows the location of the previous exceedances.

### SM1

- Lead = 398 µg/g (MOE Table 3 Standard for lead is 200 µg/g)
- Molybdenum = 57.9 µg/g (MOE Table 3 Standard for molybdenum is 40 µg/g)

### SM4

- Benzo(a)pyrene = 6.2 µg/g (MOE Table 3 Standard for benzo(a)pyrene is 1.2 µg/g)
- Benzo(b/j)fluoranthene = 14 µg/g (MOE Table 3 Standard for benzo(b)fluoranthene is 12 µg/g)
- Dibenzo(a,h)anthracene = 2 µg/g (MOE Table 3 Standard for dibenzo(a,h)anthracene is 1.2 µg/g)

### HH8

- Lead = 410 µg/g (MOE Table 3 Standard for lead is 200 µg/g)

### TP104-B

- Benzo(a)pyrene = 1.8 µg/g (MOE Table 3 Standard for Benzo(a)pyrene is 1.2 µg/g)

### MW1

- Laboratory detection limit issues for a number of volatile organic compounds (VOCs)

### TP15-B

- Petroleum fractions F1 and F2 = 310 µg/g and 1200 µg/g respectively (MOE Table 3 Standard for F1 is 260 µg/g and F2 is 900 µg/g)

## TP1, TP2, TP3, TP4, TP6 (former landfill area)

- Arsenic, lead, benzo(a)pyrene and dibenzo(a,h)anthracene exceed the MOE Table 3 Standard at depths between 0.2 and 1 metre

Previous reports indicated that ground water samples were found to be within the MOE Table 3 Standard for the development lands.

### 4.1 Remedial Excavation of Impacted Soil

Based on the results of previous environmental assessments, concentrations of arsenic, lead, molybdenum, dibenzo(a/h)anthracene, benzo(b/j)fluoranthene, benzo(a)pyrene, VOCs and petroleum hydrocarbon fractions F1 and F2 exceeding MOE Table 3 Standards or MOEE Table B Standards (1996) were identified in the following locations as indicated on Figure 2.

Area	Location	Soil Impacts	Depth
Area 1	SM1	Lead and molybdenum	0.35 metres
Area 2	SM4	Dibenzo(a/h)anthracene, benzo(b/j)fluoranthene, and benzo(a)pyrene	0.5 metres
Area 3	TP104-B	Benzo(a)pyrene	0.6 metres
Area 4	HH8	Lead	0.6 metres
	MW1	VOCs	2.1 metres
	TP15-B	Petroleum hydrocarbon fractions F1 and F2	1.4 metres
Area 5	TP1 - TP6	Arsenic, lead, benzo(a)pyrene and dibenzo(a,h)anthracene	max depth 0.8 metres

Remedial excavation activities were conducted by Barenco at the site on September 13, November 30 and November 31, 2007. Additional sampling was completed on April 7, 2008. The five excavations totaled an area of approximately 1980 m<sup>2</sup> and extended to a maximum depth of 2.5 metres below grade.

The excavated material from activities completed on September 13, 2007 were hauled off-site to Newalta, a MOE licenced landfill for disposal at their Hamilton facility. The excavated material from activities on November 30 and 31, 2007 was temporarily stockpiled on the concrete floors of the former buildings for off-site disposal. Underwood Construction Ltd. was contracted by Barenco Inc. to supply the heavy equipment for the earthworks.



Confirmatory floor samples from the completed excavations were submitted to Maxxam Analytics Inc. for analysis of the chemical parameters of concern.

All of the soil samples obtained during the sampling programs on September 13, November 30 and November 31, 2007 were within the applicable MOE Table 3 Standards with the exception of one floor sample in the excavation in Area 2 (sample B-2). The detection limits of five VOCs were found to be slightly higher than the MOE Table 3 Standards. An additional floor sample was obtained from the same location on April 7, 2008. The soil sample was found to be within the applicable MOE Table 3 Standards for all VOCs.

Tables 3 through 5 of this report summarize the soil analytical results along with the MOE Table 3 Standards for comparison.

Approximately 5,100 tonnes of soil containing concentrations of arsenic, lead, molybdenum, dibenzo(a/h)anthracene, benzo(b/j)fluoranthene, benzo(a)pyrene, VOCs and petroleum hydrocarbon fractions F1 and F2 exceeding the Table 3 Standards were stockpiled for off-site disposal. Prior to development of the subject property, the remaining contaminated soil will be hauled to Newalta, a MOE licensed landfill for disposal at their Hamilton facility.

A site plan showing the extent of remedial excavations is provided in Figure 3. Copies of the laboratory Certificates of Analysis are provided in Appendix B.

## **5.0 CURRENT SITE STATUS**

Based on confirmatory soil samples collected in the remediated areas, soil in the excavated areas was found to be within the MOE Table 3 Standards. No further assessment, nor remediation work is warranted at this time.

## **6.0 LIMITATION OF LIABILITY, SCOPE OF REPORT AND THIRD PARTY RELIANCE**

This report has been prepared for and the work referred to in this report has been undertaken by Barenco Inc. for Rafa Corporation. It is intended for the sole and exclusive use of Rafa Corporation. Any use, reliance on or decision made by any person other than Rafa Corporation based on this report is the sole responsibility of such other person. Barenco Inc. makes no representation to any other person with regard to this report and the work referred to in this report and Barenco Inc. accepts no duty of care to any other person or any liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties, or other harm that may be suffered or

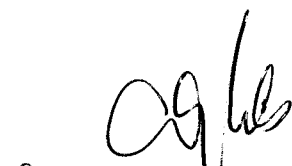
incurred by any other person as a result of the use of, reliance on, any decision made or any action taken based on this report or the work referred to in this report.

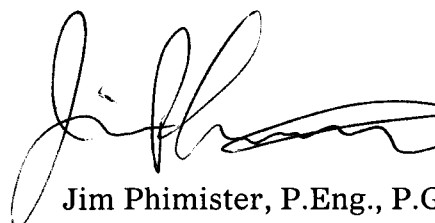
The investigation undertaken by Barenco Inc. with respect to this report and any opinions, conclusions or recommendations made in this report reflect Barenco Inc.'s judgement based on the site conditions observed at the time of the site inspection on the date set out in this report and on information available at the time of preparation of this report. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, portions of the site which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the site; substances addressed by the investigation may exist in areas of the site not investigated and concentrations of substances addressed which are different than those reported may exist in areas other than the locations from which the samples were taken.


If site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the opinions, conclusions and recommendations in this report may be necessary.

Other than by Rafa Corporation, copying or distribution of this report or the use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of Barenco Inc. Nothing in this report is intended to constitute or provide a legal opinion.

Respectfully submitted,  
BARENCO INC.

  
for Carolyn Singer, B.Sc. (Hons), P.Ag  
Environmental Scientist

  
Jim Phimister, P.Eng., P.Ge  
Principal, Hydrogeologist



## FIGURES

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BARENCO



SCALE:

1:25000

NOTES:

SOURCE:

MAPART PUBLISHING 2005

DRAWN BY

CHECKED BY

C.D.

C.S.

## LOCALITY PLAN

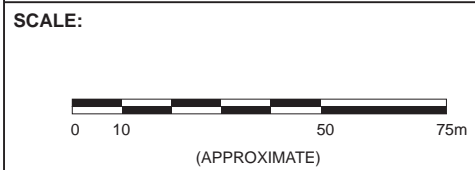
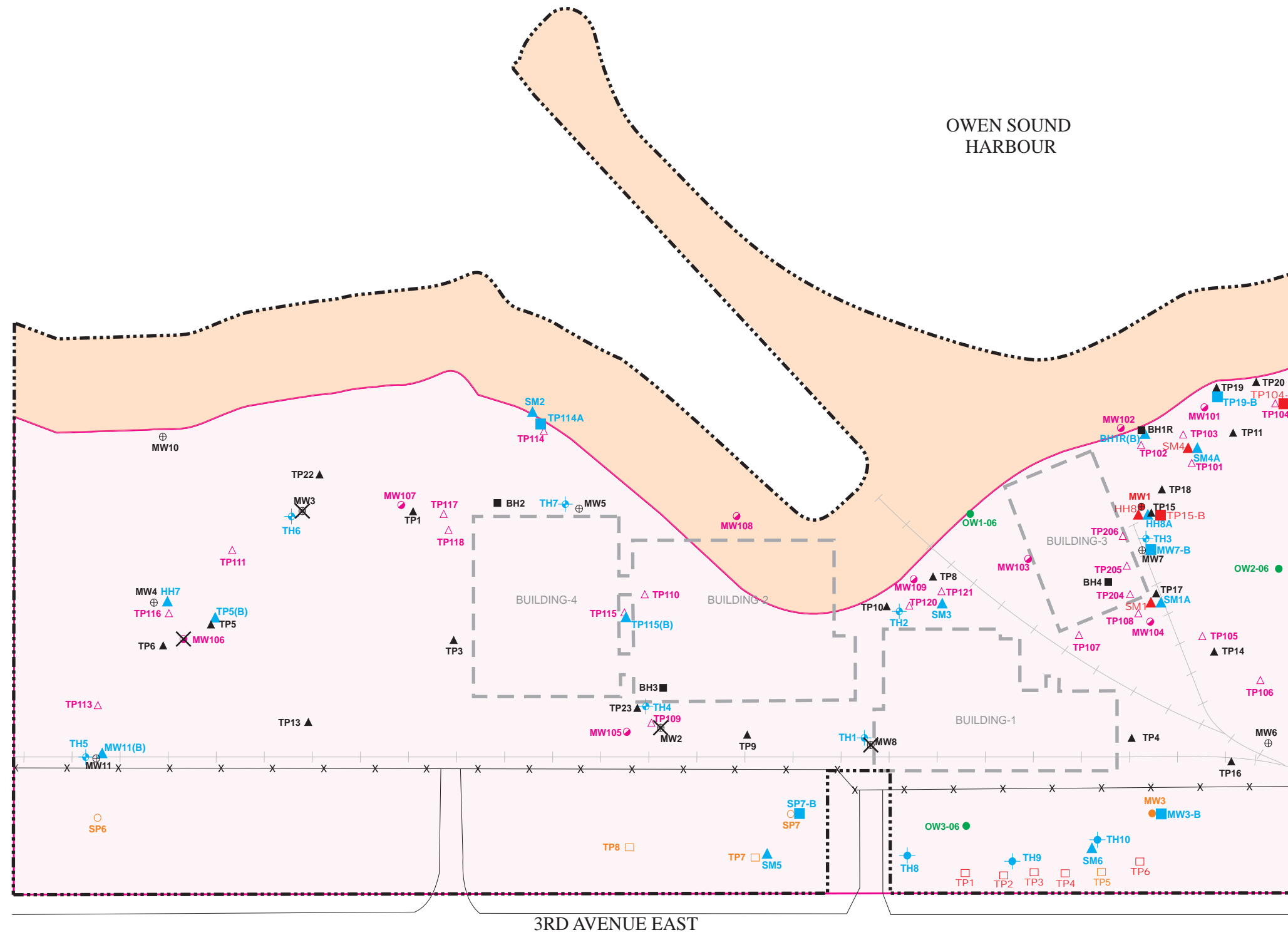
2202 3RD AVENUE EAST  
OWEN SOUND, ONTARIO

BARENCO JOB #: 06043

DATE: SEPTEMBER 2007



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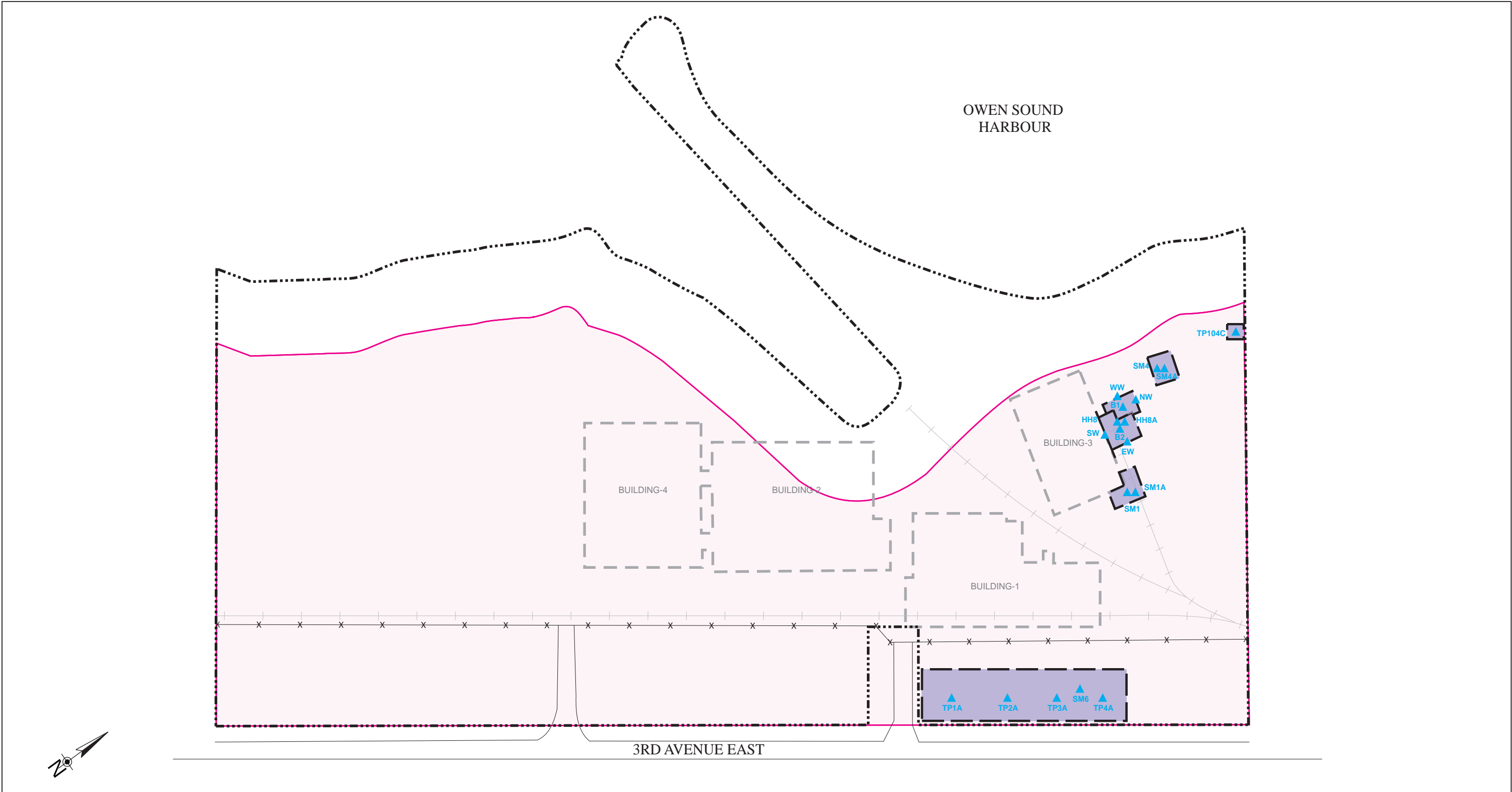
**SOURCE:**  
 BASED ON DRAWING PROVIDED BY CRA

**NOTE:**  
 SYMBOLS IN RED INDICATE THE LOCATION OF PREVIOUS EXCEEDANCE OF MOE TABLE 3 OR MOEE 1996 STANDARD

LEGEND:	
	PROPERTY BOUNDARY
	FENCE LINE
	FORMER BUILDING FOOTPRINT
	BARENCO TEST HOLE WITH MONITOR (2006)
	BARENCO TEST HOLE (2006)
	BARENCO SURFICIAL SOIL SAMPLE LOCATION (2006-2007)
	BARENCO TEST PIT (2007)
	CRA MONITORING WELL (JAN, 2006)
	CITY OF OWEN SOUND - TEST PIT CRA (NOV. 2000)
	CRA MONITORING WELL (CPR) (NOV. 2000)
	CRA STAND PIPE (CPR) (NOV. 2000)
	RUBICON TEST PIT (MAY 2001)
	RUBICON MONITORING WELL (MAY 2001)
	CH2M GORE & STORRIE MONITORING WELL (JULY 1997)
	CH2M GORE & STORRIE BORE HOLE (JULY 1997)
	CH2M GORE & STORRIE TEST PIT (JULY 1997)
	DESTROYED / COULD NOT BE FOUND
	ZONE 1 (WITHIN 30M OF WATER BODY - MOE TABLE-1 STANDARDS)
	ZONE 2 (GREATER THAN 30M OF WATER BODY - MOE TABLE-3 STANDARDS)

<b>BARENCO</b>	DRAWN BY	CHECKED BY
	C.D.	C.S.

<b>SITE PLAN SHOWING SAMPLING LOCATIONS</b>		FIGURE 2
FORMER RUSSEL BROTHERS PROPERTY 2202 3RD AVENUE EAST OWEN SOUND, ONTARIO		
BARENCO JOB NUMBER: 06043	DATE: APRIL 2008	



**SCALE:**

(APPROXIMATE)

<b>BARENCO</b>	DRAWN BY	CHECKED BY
	C.D.	C.S.

**SOURCE:**

BASED ON DRAWING PROVIDED BY CRA

**LEGEND:**

- PROPERTY BOUNDARY
- FENCE LINE
- FORMER BUILDING FOOTPRINT
- BARENCO TEST HOLE WITH MONITOR (2006)
- BARENCO TEST HOLE(2006)
- BARENCO SOIL SAMPLE LOCATION (2006-2007)
- SUBJECT PROPERTY
- APPROXIMATE EXTENT OF REMEDIAL EXCAVATION

**SITE PLAN SHOWING EXTENT OF REMEDIAL EXCAVATIONS**

FIGURE **3**

FORMER RUSSEL BROTHERS PROPERTY  
2202 3RD AVENUE EAST  
OWEN SOUND, ONTARIO

BARENCO JOB NUMBER: 06043	DATE: APRIL 2008
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## TABLES

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# SITE ENVIRONMENTAL SETTING DATA

Site Location: 2202 3rd Avenue East  
Owen Sound, Ontario

Date: September, 2007

## NATIVE SOIL

Type: Sandy silt  
 Hydraulic Conductivity: \_\_\_\_\_  
 < 10-3 cm/s: \_\_\_\_\_  
 >10-3 to <10-6 cm/s: Estimated to be 10-5cm/s  
 > 10-6 cm/s: \_\_\_\_\_  
 Percent Sand: Not measured

## GROUND WATER

Depth to Water Table: 1.6 to 3.5 metres  
 Estimated or Measured: Measured  
 Direction of Flow: Northwest  
 Estimated or Measured: Measured

## MUNICIPAL SERVICES

Piped Water: N/A - site is vacant  
 Ground Water Source: NA  
 Distance to Well: NA  
 Surface Water Source: No  
 Sanitary Sewer: No  
 Storm Sewer: No

## PRIVATE SERVICES

Distance to Nearest Well: Unknown  
 Approximate Depth of Well: Unknown  
 Private Sanitary Sewage: No

## SURFACE WATER

Name of water body: Georgian Bay (Owen Sound Harbour)  
 Distance from site: Adjacent to site (to west)  
 Elevation drop from site: None  
 Direct Drainage from site: Yes



Table 2

## DARCY'S LAW CALCULATIONS

2202 3rd Avenue East  
Owen Sound, Ontario  
September, 2007

$$v=ki/n$$

Hydraulic

Conductivity k (m/sec) = 1E-07  
(cm/sec) = 1.00E-05

Gradient i (m/m) = 0.0100

Porosity\* n = 0.35

\* (from Freeze & Cherry, 1979)

Hydraulic conductivity for sandy silt in test

Velocity v (m/sec) = 2.86E-09  
(feet/sec) = 9.37E-09  
(feet/day) = 0.001  
(feet/year) = 0.30  
(metres/year) = 0.0901

# SOIL CHEMICAL ANALYSIS - Metals

Table 3

2202 3rd Avenue East, Owen Sound, Ontario

Page 1 of 2

Location	SM1	SM1A	HH8	HH8A	Ontario Reg. 153/04 Table 3 Soil Standard**
Pre or Post Remediation	Pre	Post	Pre	Post	
Depth (m)	0-0.35	0-1	0.3-0.6	0-1.2	
Maxxam ID	P16178	U66885	T62520	U66884	
Sample Date	25-Oct-06	13-Sept-07	20-Jul-07	13-Sept-07	
Lead (Pb)	<b>398</b>	44	<b>410</b>	< 5	200
Molybdenum (Mo)	<b>57.9</b>	3	NA	NA	40

Analysis by Maxxam Analytics Inc.

\*\*"NA" means - not analyzed

All results in ppm (ug/g).

Exceedances of MOE Table 3 standard in **bold**.

\*\* Standard shown is for fine and medium textured soil and residential/parkland/institutional land use.

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# SOIL CHEMICAL ANALYSIS - Metals (Landfill Excavation)

Table 3

2202 3rd Avenue East, Owen Sound, Ontario

Page 2 of 2

Location	TP1A	TP2A	TP3A	TP4A	TP2	Ontario Reg. 153/04 Table 3 Soil Standard**
Pre or Post Remediation	Post	Post	Post	Post	Post	
Depth (m)	1.0	1.0	1.0	1.0	1.0	
Maxxam ID	W22393	W22394	W22395	W22396	X97902	
Sample Date	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	07-Apr-08	
Arsenic (As)	3	3	2	2	NA	25
Lead (Pb)	NA	NA	NA	NA	6	

Analysis by Maxxam Analytics Inc.

\*\*"NA" means - not analysed

All results in ppm (ug/g).

Exceedances of MOE Table 3 standard in **bold**.

\*\* Standard shown is for fine and medium textured soil and residential/parkland/institutional land use.

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# SOIL CHEMICAL ANALYSIS - PAHS

2202 3rd Avenue East, Owen Sound, Ontario

Table 4

Page 1 of 1

Sample ID	SM4		SM4A		TP104-B		TP104C		TP1A*		TP2A*		TP3A*		TP4A*		Ontario Reg 153/04 Table 3 Soil Standards** =
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Post	Post	Post	Post	Post	Post	Post		
Pre or Post Remediation	0-0.5	0-2.1	0-2.1	0-2.1	0.2-1	0.5-1.5	0.5-1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Depth (m)	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	Barenco	
Consultant	T62517	U66883	U66883	U66883	W04231	W22522	W22522	W22393	W22393	W22393	W22394	W22395	W22395	W22396	W22396	W22396	
Maxxam ID	20-Jul-07	13-Sep-07	13-Sep-07	13-Sep-07	21-Nov-07	31-Nov-07	31-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	
Sample Date	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1000
Acenaphthene	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
Acenaphthylene	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28
Anthracene	4.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Benzo(a)anthracene	<b>6.2</b>	0.127	0.127	0.127	<b>1.8</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	1.2
Benzo(a)pyrene	<b>14</b>	0.2	0.2	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12
Benzo(b)fluoranthene	7.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Benzo(g,h,i)perylene	4.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12
Benzo(k)fluoranthene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12
Chrysene	<b>2</b>	0.04	0.04	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2
Dibenzo(a,h)anthracene	3.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Fluoranthene	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Fluorene	7.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	350
Indeno(1,2,3-cd)pyrene	0.09	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12
1-Methylnaphthalene	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,000
2-Methylnaphthalene	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,000
Naphthalene	0.71	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Phenanthrene	3.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40
Pyrene		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250

Analysis of Barenco samples done by Maxxam Analytix Inc.

All results in ppm (ug/g) and based on dry weight basis. "ND" means "not detected" at reporting detection limit (RDL). "-" means "not applicable". "NA" means "not analyzed".

\* Samples TP1A, TP2A, TP3A and TP4A represent soil samples obtained from the remedial excavation of the former landfill.

\*\* Standards shown are for Residential/Parkland/Institutional land use and fine/medium textured soils.

Exceedances of applicable standard is shown in **bold**.

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Table 5

**SOIL CHEMICAL ANALYSIS - VOCs and Petroleum Parameters**  
2202 3rd Avenue East, Owen Sound, Ontario

Sample ID	TP15B*		MW1*		NW		WW		EW		SW		B-1		B-2		B2-A		Ontario Reg 153/04 Table 3 Soil Standards**
	Pre	Post	Pre	Post	Post	Post	Post	Post	Post	Post	Post	Post	Post	Pre	Pre	Post	Post		
Pre or Post Remediation	0.5-2.1	1.5-2.1	1.5-2.1	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	2.0-2.5	2.0-2.5	2.0-2.5	2.0-2.5	2.0-2.5		
Depth (m)	Barenco W04220	CG&S	CG&S	Barenco W22473	Barenco W22474	Barenco W22475	Barenco W22476	Barenco W22477	Barenco W22478	Barenco W22479	Barenco W22480	Barenco W22481	Barenco W22482	Barenco W22483	Barenco W22484	Barenco W22485	Barenco W22486	Barenco W22487	
Consultant	21-Nov-07	16-Jul-97	16-Jul-97	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	30-Nov-07	X97912	
Maxxam ID	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	07-Apr-08	
Sample Date	NA	<0.1	<0.1	0.009	0.014	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	<0.1	<0.1	<0.1	<0.1		3.8
Acetone (2-Propanone)	<0.02	<0.5	<0.5	<0.002	0.014	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	<0.1	<0.1	<0.1	<0.1		25
Benzene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		14
Bromodichloromethane	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		14
Bromoform	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		0.38
Bromomethane	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		0.64
Carbon Tetrachloride	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		30
Chlorobenzene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		4.9
Chloroform	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		10
Dibromochloromethane	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		30
1,2-Dichlorobenzene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		30
1,3-Dichlorobenzene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		30
1,4-Dichlorobenzene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		100
1,1-Dichloroethane	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		0.14
1,2-Dichloroethane	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		2.3
1,1-Dichloroethylene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		4.1
cis-1,2-Dichloroethylene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		0.12
trans-1,2-Dichloroethylene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		0.041
1,2-Dichloropropane	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		500
cis-1,3-Dichloropropene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		0.01
trans-1,3-Dichloropropene	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		120
Ethylbenzene	5.7	55.7	55.7	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		69
Ethylene Dibromide	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		38
Methylene Chloride (Dichloromethane)	NA	<0.5	<0.5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		100
Methyl Isobutyl Ketone	NA	NA	NA	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.1	<0.1	<0.002	<0.002		7.7
Methyl Ethyl Ketone (2-Butanone)	NA	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.1	<0.1	<0.002	<0.002		0.12
Methyl-t-Butyl Ether (MTBE)	NA	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.1	<0.1	<0.002	<0.002		0.041
Styrene	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		500
1,1,1,2-Tetrachloroethane	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		0.01
Tetrachloroethylene (Perchloroethylene)	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		120
Toluene	<0.02	1.57	1.57	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		69
1,1,1-Trichloroethane	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		38
1,1,2-Trichloroethane	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		100
Trichloroethylene	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		7.7
Vinyl Chloride	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		0.12
Xylenes (Total)	37	173.9	173.9	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.1	<0.1	<0.002	<0.002		0.23
F1 (C6-C10) - BTEX	270	NA	NA	<0.006	0.021	0.006	0.021	0.006	0.021	0.006	0.021	0.006	0.021	<0.1	<0.1	<0.002	<0.002		0.45
F2 (C10-C16)	1200	NA	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10		150
F3 (C16 to C34)	450	NA	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10		34
F4 (C34 to C50)	<10	NA	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10		210

Analysis of Barenco samples done by Maxxam Analytics Inc.  
All results in ppm (ug/g) and based on dry weight basis.  
"NA" means "not analyzed".  
\* TP15-B and MW1 samples represent the pre-remediation soil samples - NW/WW/EW/SW/B-1/B-2 samples represent soil samples obtained from remedial excavation.  
\*\* Standards shown are for Residential/Parkland/Institutional land use and fine/medium textured soils.  
Exceedances of the MOE Table 3 standard are shown in **bold**; exceedances caused by detection limit issues are shown underlined.

**BARENCO INC.**

## APPENDIX A

---

### Terms and Conditions

**BARENCO**

# Terms and Conditions

- 1. SERVICES TO BE PROVIDED AND STANDARD OF CARE.** Barenco Inc. ("Barenco") agrees to provide Client for its sole benefit and exclusive use, services set forth in Barenco's Proposal. Barenco's offer to perform shall be terminated if not accepted within sixty (60) days of the date of the Proposal. Barenco's services shall be performed in accordance with the standard of care of its profession which means generally accepted professional practices, related to the nature of the work accomplished, at the time and place the services are performed. Subject to this standard of care, Barenco makes no express or implied warranties regarding its services except as otherwise expressly stated herein and all other representations and warranties, express or implied, are hereby expressly excluded. Both parties agree that no third-party beneficiaries are intended by this Agreement.
- 2. PAYMENT.** Invoices will be submitted once a month for services performed during the prior month, or upon completion of the work, whichever is earlier. Payment terms are due upon receipt. Interest will be added to accounts thirty (30) days in arrears at the rate of two per cent (2%) of the arrears for each month of delinquency, not to exceed the maximum percentage rate allowed by law. In addition, Barenco may, after giving seven (7) days written notice, suspend services under this or any other Agreement with Client without liability until all past due accounts (including fees and accrued interest) have been paid. Timely payment is an essential requirement of Client's performance of any Agreement between Barenco and Client. All expenses incurred by Barenco for liening or collecting any delinquent amount including, without limitation, legal and other third-party fees and filing fees, shall be paid to Barenco by Client.
- 3. RIGHT OF ENTRY AND PROPERTY RESPONSIBILITY.** Client has responsibility for obtaining a right of entry to the property which is the subject of the services. The right of entry shall allow Barenco, its agents, subcontractors and employees to enter the property, including buildings if required to complete the services as proposed, from time to time, as necessary to perform the agreed services. Barenco has responsibility for its own activities on the property including the safety of its employees; it does not assume control of nor responsibility for the property, the person in charge of the property, nor the safety of persons not in Barenco's employ.
- 4. INSURANCE.** Barenco maintains Workers' Compensation insurance for its employees as required by provincial law. In addition, Barenco maintains the following insurance policies: Commercial General Liability, Pollution Liability and Professional Liability (\$1,000,000 each occurrence, \$1,000,000 Policy Aggregate) and Automobile Third Party Liability (\$2,000,000).
- 5. DOCUMENTS.** Barenco will furnish Client the agreed upon number of written reports and supporting documents. All such reports and documents are furnished for Client's exclusive internal use and reliance, use of Client's counsel, and for regulatory submission as expressly contemplated in connection with the services provided for in the Agreement, but not for advertising or other type of distribution, and are subject to the following: All documents generated by Barenco under this Agreement shall remain the sole property of Barenco. Any unauthorized use or distribution of Barenco's work shall be at Client's and recipient's sole risk and without liability to Barenco. Barenco retains a confidential file copy of its work product and related documents. If Client desires to release, or for Barenco to provide, its report to a third party, which is not entitled to receive or use the reports and documents as set out above, for that third party's reliance, Barenco will agree to such release provided it receives written acceptance from such third party to be bound by acceptable terms and conditions similar to this Agreement, and provided payment by such third party of Barenco's standard fee. Reports provided for disclosure of information only will not require separate agreement. Client acknowledges and agrees to inform such third party that Barenco's report reflects conditions only at the time of the report and may not reflect conditions at a later time. Client further acknowledges that such request for release creates a potential conflict of interest for Barenco and by making any such request Client waives any such claim if Barenco complies with the request. Client agrees that all documents furnished to Client or Client's agent or designees, if not paid for, will be returned upon demand and will not be used by Client or any other person or entity for any purpose whatsoever. Client further agrees that documents produced by Barenco pursuant to this Agreement will not be used for any purpose not expressly provided for in this Agreement without Barenco's prior written approval. Client shall furnish documents or other information reasonably within Client's control and deemed necessary by Barenco for proper performance of its services. Barenco may rely, without independent investigation or enquiry, upon Client-provided documents in performing the services required under this Agreement; however, Barenco assumes no responsibility or liability for their accuracy. Client-provided documents will remain the property of Client but Barenco may retain one confidential file copy as needed to support its report.
- 6. CONFIDENTIALITY.** Barenco will maintain as confidential any documents or information provided by Client and will not release, distribute or publish same to any third party without prior permission from Client, unless compelled by law or by order of a court or regulatory authority of competent jurisdiction.
- 7. INTELLECTUAL PROPERTY.** All concepts, products, processes, inventions, trade-marks, works, designs and improvements to, and derivatives of, the foregoing, resulting from the services rendered by Barenco in connection with the project, or which are invented, authored, developed or first used or reduced to practise by Barenco in the performance of the services shall be and remain the property of Barenco. Client shall have a personal non-exclusive, royalty-free, non-assignable, non-sublicensable licence to use the Intellectual Property in connection with the project, for the life of the project, and for no other purpose or project. Barenco does not make any representation or warranty that such Intellectual Property does not violate the rights of any other person.
- 8. WASTE.** Client warrants that, if it knows or suspects that "waste" (within the meaning of the Ontario Environmental Protection Act) may exist on the property, it has so informed Barenco. Client also agrees that Barenco accepts no ownership of any waste and has no responsibility as a generator of any waste found or identified at the project property.
- 9. LIMITATION OF LIABILITY.** CLIENT EXPRESSLY AGREES THAT, TO THE FULLEST EXTENT PERMITTED BY LAW, ITS MAXIMUM AGGREGATE RECOVERY AGAINST BARENCO, ITS DIRECTORS, EMPLOYEES, SUB-CONTRACTORS AND REPRESENTATIVES, FOR ANY AND ALL CLAIMS BY CLIENT FOR ALL CAUSES INCLUDING, BUT NOT LIMITED TO, CLAIMS OF BREACH OF CONTRACT, BREACH OF WARRANTY AND/OR NEGLIGENCE, SHALL BE THE AMOUNT OF THE FEE PAID TO BARENCO FOR ITS PROFESSIONAL SERVICES RENDERED UNDER THE AGREEMENT WITH RESPECT TO THE PARTICULAR SITE WHICH IS THE SUBJECT OF THE CLAIM BY CLIENT. PROVIDED THAT, IF THERE IS AN EVENTUAL FINAL DETERMINATION BY A COURT OF COMPETENT JURISDICTION OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT BY BARENCO, THEN THE MAXIMUM AGGREGATE RECOVERY SHALL BE LIMITED AS FOLLOWS: THE GREATER OF (A) THE FEE OR (B) THE LESSER OF TWO TIMES (2x) THE FEE AND \$25,000.

## Terms and Conditions (cont.)

**10. INDEMNIFICATION.** To the fullest extent permitted by law, Client agrees to defend, indemnify, and hold Barenco, its agents, subcontractors, and employees harmless from and against any and all claims, defence costs, including legal fees, damages and other liabilities arising out of or in any way related to Barenco's reports or recommendations concerning this Agreement, Barenco's presence on the project property, or the presence, release or threatened release of contaminants on or from the project property provided that Client shall not indemnify Barenco against liability for damages caused by or resulting from the sole negligence of Barenco, its agents, subcontractors or employees or against penalties or fines resulting from violations by Barenco of its own Certificates of Approval; and provided further that Client shall indemnify Barenco against liability for damages caused by or resulting from the concurrent or contributory negligence of (a) Client, its agents, or employees and (b) Barenco, its agents, subcontractors, or employees, only to the extent of Client's negligence or the negligence of Client's agents or subcontractors. Provided further that Barenco's obligation hereunder shall not extend to indemnification or holding harmless for any claims of loss of profits or any other indirect, special, incidental, or consequential damages of any nature whatsoever.

**11. UNFORESEEN OCCURRENCES.** If any unforeseen conditions or occurrences are encountered which, in Barenco's judgement, significantly affect or may affect the original services as proposed, then Barenco will promptly notify Client. After such notification, the parties agree that Barenco has the unilateral right to complete the original services as proposed, if appropriate, or agree with Client to modify the Agreement, or terminate the Agreement.

**12. TERMINATION AND RESTART.** In the event that Client requests termination of work prior to completion or Barenco terminates work under Paragraph 11, a final invoice will be rendered. Where the method of payment is based on time and materials, Barenco will be paid for all work performed up to notice of termination and for all expenses incurred or committed to that cannot be cancelled. Where the method of payment is based on a fixed price, the final invoice will be based on the percentage of work completed by the date of termination. Barenco also has the right to complete at client's expense the analyses and records Barenco considers necessary to protect its professional reputation.

**13. WELL ABANDONMENT.** Any monitoring wells installed as part of Barenco's work may later need to be abandoned in accordance with applicable law. Unless expressly provided for in the proposal, well abandonment is not included in the work.

**14. DISPOSAL OF SAMPLES.** Samples not submitted for analysis will be discarded 90 days after sampling unless different arrangements are agreed to in writing.

**15. SUBSURFACE RISKS AND SITE DAMAGE.** Client recognizes that special risks occur and guarantees cannot be expected whenever professional consulting services are applied to determine the composition of a site's subsurface or the existence or non-existence of waste materials. Barenco cannot eliminate these risks altogether, but Barenco can apply professional techniques to reduce the risks to a level deemed tolerable and Client agrees to accept that level of risk. Whenever Barenco is providing field services, Client recognizes that the use of exploration and test equipment may unavoidably damage or alter the property surface or subsurface. Barenco will not be responsible for personal and property damages due to its interference with subterranean structures, such as pipes, tanks, and utility lines that are not called to Barenco's attention in writing or correctly shown on plans provided by Client, or for which clearances cannot be obtained from utility owners or their agents, or which are incorrectly cleared by utility owners or their agents.

**16. SEVERABILITY AND SURVIVAL.** Any element of this Agreement later held to violate a law shall be deemed void, and all remaining provisions shall continue in force. However, Client and Barenco will in good faith attempt to replace any invalid or unenforceable provision with one that is valid and enforceable, and which comes as close as possible to expressing the intent of the original provision. All terms and conditions of this Agreement allocating liability between Client and Barenco shall survive the completion of the services hereunder and the termination of the Agreement.

**17. DISPUTES RESOLUTION.** All matters in dispute howsoever caused may with the consent of both parties be referred to arbitration. The award of the arbitrator shall be final and binding upon the parties. The provisions of the Ontario Arbitrations Act, 1991, shall apply. Alternatively, if the dispute requires litigation, (a) Client assents to exclusive jurisdiction of the courts of the Province of Ontario (b) the claim will be brought and tried in the judicial jurisdiction where Barenco's principal place of business is located and Client waives the right to move the action to any other judicial jurisdiction and (c) the prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, legal fees and other claim-related expenses.

**18. PRECEDENCE.** These terms and conditions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition, or like document concerning Barenco's services.

**19. GOVERNING LAW.** This Agreement shall be governed in all respects by the laws of the Province of Ontario.

**20. ENTIRE AGREEMENT.** This Agreement, together with Barenco's Proposal, constitutes the entire agreement between Client and Barenco pertaining to the subject matter of this Agreement and supersedes all other agreements, understandings, negotiations and discussions, whether oral or written. There are no conditions, warranties, representations or other agreements between the parties in connection with the subject matter of this Agreement (whether oral or written, express or implied, statutory or otherwise) except as specifically set out in this Agreement. Barenco shall not be bound or deemed to be bound by any other document or instrument issued by the Client, including without limitation, purchase orders, requisitions, or contracts unless a duly authorized officer of Barenco expressly agrees in writing to be bound by the terms of such documents or instruments, notwithstanding that documents or instruments may state otherwise.

**21. PREPARATION OF AGREEMENT.** Notwithstanding any rule or maxim of law or construction to the contrary, the parties agree that any ambiguity or uncertainty contained in this Agreement shall not be construed against Barenco merely because this Agreement was drafted or prepared by or on behalf of Barenco.

## APPENDIX B

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### Laboratory Certificates of Analysis

Attached are copies of the original Certificates of Analysis provided by the laboratory. The data contained in these analyses is to be read only in conjunction with the report to which it is attached. For interpretation of the chemical data, see the attached text.

All samples are submitted to and reported by the laboratory using purchase order numbers and sample location codes. These are only discernable to persons familiar with the purchase order system and the location codes. For descriptions of the locations of the samples, see the attached text.

Not all data contained in the original laboratory certificate of analysis may have been referenced in the report. Samples may have been submitted as travel or field blanks or as duplicates. Some samples may be for control purposes and represent soil that is no longer on the site and is not relevant to the report.

Since the laboratory data contains scientific terms and references, only trained persons familiar with sampling and laboratory methods should attempt to interpret the raw data.

**B A R E N C O**

The logo for BARENCO consists of the company name in a bold, sans-serif font. Below the name is a solid black horizontal bar.



Your P.O. #: 06043  
Your Project #: 06043  
Your C.O.C. #: 00544849

**Attention: Carolyn Singer**  
Barenco Inc  
2561 Stouffville Rd  
PO Box 295  
Gormley, ON  
L0H 1G0

**Report Date: 2007/12/07**

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: A7D4583**  
**Received: 2007/12/04, 15:23**

Sample Matrix: Soil  
# Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
MOISTURE	1	N/A	2007/12/06	Ont SOP-0114	MOE HANDBOOK(1983)
PAH Compounds in Soil by GC/MS (SIM)	1	2007/12/05	2007/12/05	SOP - 00318	EPA 8270

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key  Valentina Ulloa  
07 Dec 2007 15:10:40 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

VALENTINA ULLOA, Project Manager  
Email: valentina.ulloa@maxxamanalytics.com  
Phone# (905) 817-5700 Ext:5821

=====  
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For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

Page 1 of 6

Maxxam Job #: A7D4583  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**RESULTS OF ANALYSES OF SOIL**

Maxxam ID		W22522		
Sampling Date		2007/11/30		
COC Number		00544849		
	<b>Units</b>	<b>TP104C</b>	<b>RDL</b>	<b>QC Batch</b>

<b>INORGANICS</b>				
Moisture	%	20	0.2	1421057

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7D4583  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)**

Maxxam ID		W22522		
Sampling Date		2007/11/30		
COC Number		00544849		
	<b>Units</b>	<b>TP104C</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PAHs</b>				
Benzo(a)pyrene	ug/g	ND	0.005	1420476
<b>Surrogate Recovery (%)</b>				
D10-Anthracene	%	91		1420476
D14-Terphenyl (FS)	%	87		1420476
D7-Quinoline	%	71		1420476
D8-Acenaphthylene	%	73		1420476

ND = Not detected  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7D4583  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**GENERAL COMMENTS**

**Results relate only to the items tested.**

Barenco Inc  
Attention: Carolyn Singer  
Client Project #: 06043  
P.O. #: 06043  
Project name:

Quality Assurance Report

Maxxam Job Number: MA7D4583

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1420476 MWG	MATRIX SPIKE	D10-Anthracene	2007/12/05		115	%	30 - 130
		D14-Terphenyl (FS)	2007/12/05		112	%	30 - 130
		D7-Quinoline	2007/12/05		92	%	30 - 130
		D8-Acenaphthylene	2007/12/05		84	%	30 - 130
	Spiked Blank	Benzo(a)pyrene	2007/12/05		101	%	30 - 130
		D10-Anthracene	2007/12/05		108	%	30 - 130
		D14-Terphenyl (FS)	2007/12/05		107	%	30 - 130
		D7-Quinoline	2007/12/05		102	%	30 - 130
	Method Blank	D8-Acenaphthylene	2007/12/05		92	%	30 - 130
		Benzo(a)pyrene	2007/12/05		95	%	30 - 130
		D10-Anthracene	2007/12/05		112	%	30 - 130
		D14-Terphenyl (FS)	2007/12/05		104	%	30 - 130
	RPD	D7-Quinoline	2007/12/05		98	%	30 - 130
		D8-Acenaphthylene	2007/12/05		88	%	30 - 130
		Benzo(a)pyrene	2007/12/05	ND, RDL=0.005		ug/g	
		D14-Terphenyl (FS)	2007/12/05	0.4		%	N/A
1421057 MYG	RPD	Benzo(a)pyrene	2007/12/05	NC		%	50
		Moisture	2007/12/06	0.6		%	50

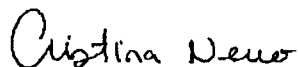
ND = Not detected  
N/A = Not Applicable  
NC = Non-calculable  
RPD = Relative Percent Difference  
SPIKE = Fortified sample

Validation Signature Page

Maxxam Job #: A7D4583

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The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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CHRISTINA NERVO, Scientific Services



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MICHAEL WANG,

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

Your P.O. #: 06043  
Your Project #: 06043  
Site: OWEN SOUND  
Your C.O.C. #: 00507847

**Attention: Vinod Kella**  
Barenco Inc  
2561 Stouffville Rd  
PO Box 295  
Gormley, ON  
L0H 1G0

**Report Date: 2007/09/21**

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: A7A0203**  
**Received: 2007/09/14, 15:04**

Sample Matrix: Soil  
# Samples Received: 3

Analyses	Quantity	Date		Laboratory Method	Method Reference
		Extracted	Analyzed		
Total Metals Analysis by ICP	2	2007/09/17	2007/09/18	CAM SOP-00408	EPA 6010
MOISTURE	1	N/A	2007/09/18	Ont SOP-0114	MOE HANDBOOK(1983)
PAH Compounds in Soil by GC/MS (SIM)	1	2007/09/17	2007/09/17	EPA 8270	GC/MS

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Valentina Ulloa  
21 Sep 2007 16:15:37 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

VALENTINA ULLOA, Project Manager  
Email: valentina.ulloa@maxxamanalytics.com  
Phone# (905) 817-5700 Ext:5821

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Maxxam Job #: A7A0203  
Report Date: 2007/09/21

Barenco Inc  
Client Project #: 06043  
Project name: OWEN SOUND  
Your P.O. #: 06043  
Sampler Initials:

**RESULTS OF ANALYSES OF SOIL**

Maxxam ID		U66883		
Sampling Date		2007/09/13		
COC Number		00507847		
	<b>Units</b>	<b>SM4-A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>INORGANICS</b>				
Moisture	%	21	0.2	1362704

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch



Maxxam Job #: A7A0203  
Report Date: 2007/09/21

Barenco Inc  
Client Project #: 06043  
Project name: OWEN SOUND  
Your P.O. #: 06043  
Sampler Initials:

**ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)**

Maxxam ID		U66884	U66885		
Sampling Date		2007/09/13	2007/09/13		
COC Number		00507847	00507847		
	<b>Units</b>	<b>HH8-A</b>	<b>SM1-A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>METALS</b>					
Acid Extractable Lead (Pb)	ug/g	ND	44	5	1361619
Acid Extractable Molybdenum (Mo)	ug/g		3	2	1361619

ND = Not detected  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7A0203  
Report Date: 2007/09/21

Barenco Inc  
Client Project #: 06043  
Project name: OWEN SOUND  
Your P.O. #: 06043  
Sampler Initials:

**SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)**

Maxxam ID		U66883		
Sampling Date		2007/09/13		
COC Number		00507847		
	Units	SM4-A	RDL	QC Batch

PAHs				
Benzo(a)pyrene	ug/g	0.127	0.005	1363788
Benzo(b/j)fluoranthene	ug/g	0.200	0.005	1363788
Dibenz(a,h)anthracene	ug/g	0.04	0.02	1363788
Surrogate Recovery (%)				
D10-Anthracene	%	110		1363788
D14-Terphenyl (FS)	%	122		1363788
D7-Quinoline	%	83		1363788
D8-Acenaphthylene	%	96		1363788

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7A0203  
Report Date: 2007/09/21

Barenco Inc  
Client Project #: 06043  
Project name: OWEN SOUND  
Your P.O. #: 06043  
Sampler Initials:

**GENERAL COMMENTS**

**Results relate only to the items tested.**

Barenco Inc  
Attention: Vinod Kella  
Client Project #: 06043  
P.O. #: 06043  
Project name: OWEN SOUND

**Quality Assurance Report**  
Maxxam Job Number: MA7A0203

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1361619 BGI	MATRIX SPIKE	Acid Extractable Lead (Pb)	2007/09/18		91	%	75 - 125	
		Acid Extractable Molybdenum (Mo)	2007/09/18		92	%	75 - 125	
	QC STANDARD	Acid Extractable Lead (Pb)	2007/09/18		96	%	75 - 125	
		Method Blank	Acid Extractable Lead (Pb)	2007/09/18	ND, RDL=5		ug/g	
1362704 AYU	RPD	Acid Extractable Molybdenum (Mo)	2007/09/18	ND, RDL=2		ug/g		
		Acid Extractable Lead (Pb)	2007/09/18	NC		%	35	
1363788 PMO	MATRIX SPIKE	Moisture	2007/09/18	3.4		%	50	
		D10-Anthracene	2007/09/19		94	%	30 - 130	
		D14-Terphenyl (FS)	2007/09/19		97	%	30 - 130	
		D7-Quinoline	2007/09/19		82	%	30 - 130	
		D8-Acenaphthylene	2007/09/19		82	%	30 - 130	
		Benzo(a)pyrene	2007/09/19		112	%	30 - 130	
		Benzo(b/j)fluoranthene	2007/09/19		105	%	30 - 130	
		Spiked Blank	Dibenz(a,h)anthracene	2007/09/19		109	%	30 - 130
			D10-Anthracene	2007/09/19		109	%	30 - 130
			D14-Terphenyl (FS)	2007/09/19		112	%	30 - 130
			D7-Quinoline	2007/09/19		96	%	30 - 130
		Method Blank	D8-Acenaphthylene	2007/09/19		92	%	30 - 130
			Benzo(a)pyrene	2007/09/19		118	%	30 - 130
			Benzo(b/j)fluoranthene	2007/09/19		113	%	30 - 130
			Dibenz(a,h)anthracene	2007/09/19		120	%	30 - 130
			D10-Anthracene	2007/09/19		96	%	30 - 130
			D14-Terphenyl (FS)	2007/09/19		101	%	30 - 130
			D7-Quinoline	2007/09/19		83	%	30 - 130
			D8-Acenaphthylene	2007/09/19		98	%	30 - 130
		RPD	Benzo(a)pyrene	2007/09/19	ND, RDL=0.005		ug/g	
			Benzo(b/j)fluoranthene	2007/09/19	ND, RDL=0.005		ug/g	
			Dibenz(a,h)anthracene	2007/09/19	ND, RDL=0.02		ug/g	
			D14-Terphenyl (FS)	2007/09/19	4.8		%	N/A
			Benzo(a)pyrene	2007/09/19	NC		%	50
			Benzo(b/j)fluoranthene	2007/09/19	NC		%	50
				Dibenz(a,h)anthracene	2007/09/19	NC		%

ND = Not detected  
N/A = Not Applicable  
NC = Non-calculable  
RPD = Relative Percent Difference  
QC Standard = Quality Control Standard  
SPIKE = Fortified sample

Validation Signature Page

Maxxam Job #: A7A0203

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The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).


\_\_\_\_\_  
EWA PRANJIC, M.Sc., C.Chem, Scientific Specialist



\_\_\_\_\_  
MICHAEL WANG,


\_\_\_\_\_  
TROY CARRIERE, B.Sc., C.Chem, Scientific Specialist

=====

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Your P.O. #: 06043  
Your Project #: 06043  
Your C.O.C. #: 00544847

**Attention: Carolyn Singer**  
Barenco Inc  
2561 Stouffville Rd  
PO Box 295  
Gormley, ON  
L0H 1G0

Report Date: 2007/12/07

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: A7D4574**  
**Received: 2007/12/04, 15:23**

Sample Matrix: Soil  
# Samples Received: 6

Analyses	Quantity	Date		Laboratory Method	Method Reference
		Extracted	Analyzed		
Petroleum Hydro. CCME F1 & BTEX in Soil	3	2007/12/04	2007/12/04	CAM SOP-00315	CCME CWS
Petroleum Hydro. CCME F1 & BTEX in Soil	1	2007/12/04	2007/12/06	CAM SOP-00315	CCME CWS
Petroleum Hydro. CCME F1 & BTEX in Soil	2	2007/12/05	2007/12/05	CAM SOP-00315	CCME CWS
Petroleum Hydrocarbons F2-F4 in Soil	3	2007/12/04	2007/12/05	CAM SOP-00316	CCME CWS
Petroleum Hydrocarbons F2-F4 in Soil	3	2007/12/05	2007/12/05	CAM SOP-00316	CCME CWS
MOISTURE	1	N/A	2007/12/05	Ont SOP-0114	MOE HANDBOOK(1983)
MOISTURE	5	N/A	2007/12/06	Ont SOP-0114	MOE HANDBOOK(1983)
Volatile Organic Compounds in Soil	6	N/A	2007/12/06	CAM SOP-00226	EPA 8260 modified

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key  Valentina Ulloa  
07 Dec 2007 15:40:44 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

VALENTINA ULLOA, Project Manager  
Email: valentina.ulloa@maxxamanalytics.com  
Phone# (905) 817-5700 Ext:5821

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For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

Maxxam Job #: A7D4574  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**RESULTS OF ANALYSES OF SOIL**

Maxxam ID		W22472	W22473		W22474		
Sampling Date							
COC Number		00544847	00544847		00544847		
	<b>Units</b>	<b>NW</b>	<b>WW</b>	<b>QC Batch</b>	<b>EW</b>	<b>RDL</b>	<b>QC Batch</b>

<b>INORGANICS</b>							
Moisture	%	17	19	1421057	20	0.2	1420620

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam ID		W22475	W22476	W22477		
Sampling Date						
COC Number		00544847	00544847	00544847		
	<b>Units</b>	<b>SW</b>	<b>B-1</b>	<b>B-2</b>	<b>RDL</b>	<b>QC Batch</b>

<b>INORGANICS</b>						
Moisture	%	15	24	22	0.2	1421057

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7D4574  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**VOLATILE ORGANICS BY GC/MS (SOIL)**

Maxxam ID		W22472	W22473	W22474	W22475		
Sampling Date							
COC Number		00544847	00544847	00544847	00544847		
	Units	NW	WW	EW	SW	RDL	QC Batch

VOLATILES							
Acetone (2-Propanone)	ug/g	ND	ND	ND	ND	0.1	1420553
Benzene	ug/g	0.009	0.010	0.009	0.014	0.002	1420553
Bromodichloromethane	ug/g	ND	ND	ND	ND	0.002	1420553
Bromoform	ug/g	ND	ND	ND	ND	0.002	1420553
Bromomethane	ug/g	ND	ND	ND	ND	0.003	1420553
Carbon Tetrachloride	ug/g	ND	ND	ND	ND	0.002	1420553
Chlorobenzene	ug/g	ND	ND	ND	ND	0.002	1420553
Chloroform	ug/g	ND	ND	ND	ND	0.002	1420553
Dibromochloromethane	ug/g	ND	ND	ND	ND	0.002	1420553
1,2-Dichlorobenzene	ug/g	ND	ND	ND	ND	0.002	1420553
1,3-Dichlorobenzene	ug/g	ND	ND	ND	ND	0.002	1420553
1,4-Dichlorobenzene	ug/g	ND	ND	ND	ND	0.002	1420553
1,1-Dichloroethane	ug/g	ND	ND	ND	ND	0.002	1420553
1,2-Dichloroethane	ug/g	ND	ND	ND	ND	0.002	1420553
1,1-Dichloroethylene	ug/g	ND	ND	ND	ND	0.002	1420553
cis-1,2-Dichloroethylene	ug/g	ND	ND	ND	ND	0.002	1420553
trans-1,2-Dichloroethylene	ug/g	ND	ND	ND	ND	0.002	1420553
1,2-Dichloropropane	ug/g	ND	ND	ND	ND	0.002	1420553
cis-1,3-Dichloropropene	ug/g	ND	ND	ND	ND	0.002	1420553
trans-1,3-Dichloropropene	ug/g	ND	ND	ND	ND	0.002	1420553
Ethylbenzene	ug/g	0.005	0.003	0.008	0.002	0.002	1420553
Ethylene Dibromide	ug/g	ND	ND	ND	ND	0.002	1420553
Methylene Chloride(Dichloromethane)	ug/g	ND	ND	ND	ND	0.003	1420553
Methyl Isobutyl Ketone	ug/g	ND	ND	ND	ND	0.025	1420553
Methyl Ethyl Ketone (2-Butanone)	ug/g	ND	ND	ND	ND	0.025	1420553
Methyl t-butyl ether (MTBE)	ug/g	ND	ND	ND	ND	0.002	1420553
Styrene	ug/g	ND	ND	ND	ND	0.002	1420553
1,1,1,2-Tetrachloroethane	ug/g	ND	ND	ND	ND	0.002	1420553
1,1,2,2-Tetrachloroethane	ug/g	ND	ND	ND	ND	0.002	1420553
Tetrachloroethylene	ug/g	ND	ND	ND	ND	0.002	1420553
Toluene	ug/g	0.013	0.014	0.020	0.009	0.002	1420553
ND = Not detected RDL = Reportable Detection Limit QC Batch = Quality Control Batch							



Maxxam Job #: A7D4574  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**VOLATILE ORGANICS BY GC/MS (SOIL)**

Maxxam ID		W22472	W22473	W22474	W22475		
Sampling Date							
COC Number		00544847	00544847	00544847	00544847		
	<b>Units</b>	<b>NW</b>	<b>WW</b>	<b>EW</b>	<b>SW</b>	<b>RDL</b>	<b>QC Batch</b>

1,1,1-Trichloroethane	ug/g	ND	ND	ND	ND	0.002	1420553
1,1,2-Trichloroethane	ug/g	ND	ND	ND	ND	0.002	1420553
Trichloroethylene	ug/g	ND	ND	ND	ND	0.002	1420553
Vinyl Chloride	ug/g	ND	ND	ND	ND	0.002	1420553
p+m-Xylene	ug/g	0.006	0.021	0.008	0.005	0.002	1420553
o-Xylene	ug/g	ND	ND	0.002	ND	0.002	1420553
Xylene (Total)	ug/g	0.006	0.021	0.010	0.005	0.002	1420553
<b>Surrogate Recovery (%)</b>							
4-Bromofluorobenzene	%	87	86	87	83		1420553
D4-1,2-Dichloroethane	%	91	93	90	94		1420553
D8-Toluene	%	107	107	113	113		1420553

ND = Not detected  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7D4574  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**VOLATILE ORGANICS BY GC/MS (SOIL)**

Maxxam ID		W22476		W22477		
Sampling Date						
COC Number		00544847		00544847		
	Units	B-1	RDL	B-2	RDL	QC Batch

VOLATILES						
Acetone (2-Propanone)	ug/g	ND	0.1	ND	5	1420553
Benzene	ug/g	0.009	0.002	ND	0.1	1420553
Bromodichloromethane	ug/g	ND	0.002	ND	0.1	1420553
Bromoform	ug/g	ND	0.002	ND	0.1	1420553
Bromomethane	ug/g	ND	0.003	ND	0.15	1420553
Carbon Tetrachloride	ug/g	ND	0.002	ND	0.1	1420553
Chlorobenzene	ug/g	ND	0.002	ND	0.1	1420553
Chloroform	ug/g	ND	0.002	ND	0.1	1420553
Dibromochloromethane	ug/g	ND	0.002	ND	0.1	1420553
1,2-Dichlorobenzene	ug/g	ND	0.002	ND	0.1	1420553
1,3-Dichlorobenzene	ug/g	ND	0.002	ND	0.1	1420553
1,4-Dichlorobenzene	ug/g	ND	0.002	ND	0.1	1420553
1,1-Dichloroethane	ug/g	ND	0.002	ND	0.1	1420553
1,2-Dichloroethane	ug/g	ND	0.002	ND	0.1	1420553
1,1-Dichloroethylene	ug/g	ND	0.002	ND	0.1	1420553
cis-1,2-Dichloroethylene	ug/g	ND	0.002	ND	0.1	1420553
trans-1,2-Dichloroethylene	ug/g	ND	0.002	ND	0.1	1420553
1,2-Dichloropropane	ug/g	ND	0.002	ND	0.1	1420553
cis-1,3-Dichloropropene	ug/g	ND	0.002	ND	0.1	1420553
trans-1,3-Dichloropropene	ug/g	ND	0.002	ND	0.1	1420553
Ethylbenzene	ug/g	0.009	0.002	0.3	0.1	1420553
Ethylene Dibromide	ug/g	ND	0.002	ND	0.1	1420553
Methylene Chloride(Dichloromethane)	ug/g	ND	0.003	ND	0.15	1420553
Methyl Isobutyl Ketone	ug/g	ND	0.025	ND	1.3	1420553
Methyl Ethyl Ketone (2-Butanone)	ug/g	ND	0.025	ND	1.3	1420553
Methyl t-butyl ether (MTBE)	ug/g	ND	0.002	ND	0.1	1420553
Styrene	ug/g	ND	0.002	ND	0.1	1420553
1,1,1,2-Tetrachloroethane	ug/g	ND	0.002	ND	0.1	1420553
1,1,1,2-Tetrachloroethane	ug/g	ND	0.002	ND	0.1	1420553
Tetrachloroethylene	ug/g	ND	0.002	ND	0.1	1420553
Toluene	ug/g	0.022	0.002	ND	0.1	1420553

ND = Not detected  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7D4574  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**VOLATILE ORGANICS BY GC/MS (SOIL)**

Maxxam ID		W22476		W22477		
Sampling Date						
COC Number		00544847		00544847		
	Units	B-1	RDL	B-2	RDL	QC Batch

1,1,1-Trichloroethane	ug/g	ND	0.002	ND	0.1	1420553
1,1,2-Trichloroethane	ug/g	ND	0.002	ND	0.1	1420553
Trichloroethylene	ug/g	ND	0.002	ND	0.1	1420553
Vinyl Chloride	ug/g	ND	0.002	ND	0.1	1420553
p+m-Xylene	ug/g	0.011	0.002	4.2	0.1	1420553
o-Xylene	ug/g	0.003	0.002	ND	0.1	1420553
Xylene (Total)	ug/g	0.014	0.002	4.2	0.1	1420553
<b>Surrogate Recovery (%)</b>						
4-Bromofluorobenzene	%	84		105		1420553
D4-1,2-Dichloroethane	%	88		99		1420553
D8-Toluene	%	109		101		1420553
ND = Not detected RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

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**PETROLEUM HYDROCARBONS (CCME)**

Maxxam ID		W22472	W22473	W22474		
Sampling Date						
COC Number		00544847	00544847	00544847		
	Units	NW	WW	EW	RDL	QC Batch

F1 PHC and BTEX						
F1 (C6-C10)	ug/g	ND	ND	ND	10	1419672
F1 (C6-C10) - BTEX	ug/g	ND	ND	ND	10	1419672
F2-F4 PHC						
F2 (C10-C16 Hydrocarbons)	ug/g	ND	ND	ND	10	1419666
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	103	104	107		1419672
4-Bromofluorobenzene	%	101	106	103		1419672
D10-Ethylbenzene	%	105	114	117		1419672
D4-1,2-Dichloroethane	%	93	98	98		1419672
o-Terphenyl	%	84	85	85		1419666

ND = Not detected  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam ID		W22475		W22476	W22477	
Sampling Date						
COC Number		00544847		00544847	00544847	
	Units	SW	QC Batch	B-1	B-2	RDL QC Batch

F1 PHC and BTEX						
F1 (C6-C10)	ug/g	35	1419665	39	14	10 1419751
F1 (C6-C10) - BTEX	ug/g	35	1419665	39	14	10 1419751
F2-F4 PHC						
F2 (C10-C16 Hydrocarbons)	ug/g	890	1419773	790	ND	10 1419773
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	101	1419665	96	95	1419751
4-Bromofluorobenzene	%	100	1419665	104	99	1419751
D10-Ethylbenzene	%	102	1419665	107	108	1419751
D4-1,2-Dichloroethane	%	88	1419665	101	98	1419751
o-Terphenyl	%	100	1419773	110	90	1419773

ND = Not detected  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

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**GENERAL COMMENTS**

Note: F1BTEX - all soils were Methanol extracted on 2007/12/04

The BTEX results used for the F1-BTEX calculation were obtained from Headspace-GC analysis.

Sample W22477-01: VOC Analysis: Due to a level of target analytes and petroleum hydrocarbon compounds beyond the appropriate range, the sample could not be analysed by the low level direct purge method. The sample was preextracted in methanol and the extract analysed by high level purge & trap (US EPA Method 5035) gas chromatography/mass spectrometry using US EPA Method 8260C (modified). The DLs were adjusted accordingly.

**Results relate only to the items tested.**

Barenco Inc  
Attention: Carolyn Singer  
Client Project #: 06043  
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Quality Assurance Report  
Maxxam Job Number: MA7D4574

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits		
1419665 SPV	MATRIX SPIKE	1,4-Difluorobenzene	2007/12/06		103	%	60 - 140		
		4-Bromofluorobenzene	2007/12/06		98	%	60 - 140		
		D10-Ethylbenzene	2007/12/06		113	%	30 - 130		
		D4-1,2-Dichloroethane	2007/12/06		91	%	60 - 140		
		F1 (C6-C10)	2007/12/06		NC (1)	%	60 - 140		
	Spiked Blank	1,4-Difluorobenzene	2007/12/06		106	%	60 - 140		
		4-Bromofluorobenzene	2007/12/06		96	%	60 - 140		
		D10-Ethylbenzene	2007/12/06		98	%	30 - 130		
		D4-1,2-Dichloroethane	2007/12/06		93	%	60 - 140		
		F1 (C6-C10)	2007/12/06		95	%	60 - 140		
	Method Blank	1,4-Difluorobenzene	2007/12/06		106	%	60 - 140		
		4-Bromofluorobenzene	2007/12/06		96	%	60 - 140		
		D10-Ethylbenzene	2007/12/06		101	%	30 - 130		
		D4-1,2-Dichloroethane	2007/12/06		93	%	60 - 140		
		F1 (C6-C10)	2007/12/06		ND, RDL=10	ug/g			
	RPD	F1 (C6-C10) - BTEX	2007/12/06		ND, RDL=10	ug/g			
		F1 (C6-C10)	2007/12/06		53.3 (2)	%	50		
		F1 (C6-C10) - BTEX	2007/12/06		53.3 (2)	%	50		
		1419666 LSY	MATRIX SPIKE	o-Terphenyl	2007/12/05		95	%	30 - 130
				F2 (C10-C16 Hydrocarbons)	2007/12/05		95	%	60 - 130
Spiked Blank	o-Terphenyl		2007/12/05		87	%	30 - 130		
	F2 (C10-C16 Hydrocarbons)		2007/12/05		83	%	60 - 130		
Method Blank	o-Terphenyl		2007/12/05		95	%	30 - 130		
	F2 (C10-C16 Hydrocarbons)	2007/12/05		ND, RDL=10	ug/g				
RPD	F2 (C10-C16 Hydrocarbons)	2007/12/05		NC	%	50			
	1419672 DTI	MATRIX SPIKE	1,4-Difluorobenzene	2007/12/04		103	%	60 - 140	
4-Bromofluorobenzene			2007/12/04		100	%	60 - 140		
D10-Ethylbenzene			2007/12/04		120	%	30 - 130		
D4-1,2-Dichloroethane			2007/12/04		97	%	60 - 140		
F1 (C6-C10)			2007/12/04		NC (3)	%	60 - 140		
Spiked Blank		1,4-Difluorobenzene	2007/12/04		103	%	60 - 140		
		4-Bromofluorobenzene	2007/12/04		100	%	60 - 140		
		D10-Ethylbenzene	2007/12/04		108	%	30 - 130		
		D4-1,2-Dichloroethane	2007/12/04		95	%	60 - 140		
		F1 (C6-C10)	2007/12/04		103	%	60 - 140		
Method Blank		1,4-Difluorobenzene	2007/12/04		104	%	60 - 140		
		4-Bromofluorobenzene	2007/12/04		106	%	60 - 140		
		D10-Ethylbenzene	2007/12/04		110	%	30 - 130		
		D4-1,2-Dichloroethane	2007/12/04		97	%	60 - 140		
		F1 (C6-C10)	2007/12/04		ND, RDL=10	ug/g			
RPD		F1 (C6-C10) - BTEX	2007/12/04		ND, RDL=10	ug/g			
		F1 (C6-C10)	2007/12/04		38.3	%	50		
		F1 (C6-C10) - BTEX	2007/12/04		38.4	%	50		
		1419751 KJI	MATRIX SPIKE	1,4-Difluorobenzene	2007/12/05		100	%	60 - 140
				4-Bromofluorobenzene	2007/12/05		104	%	60 - 140
D10-Ethylbenzene	2007/12/05				115	%	30 - 130		
D4-1,2-Dichloroethane	2007/12/05				107	%	60 - 140		
F1 (C6-C10)	2007/12/05				105	%	60 - 140		
Spiked Blank	1,4-Difluorobenzene		2007/12/05		99	%	60 - 140		
	4-Bromofluorobenzene		2007/12/05		104	%	60 - 140		
	D10-Ethylbenzene		2007/12/05		110	%	30 - 130		
	D4-1,2-Dichloroethane		2007/12/05		102	%	60 - 140		
	F1 (C6-C10)		2007/12/05		96	%	60 - 140		
Method Blank	1,4-Difluorobenzene		2007/12/05		99	%	60 - 140		
	4-Bromofluorobenzene		2007/12/05		98	%	60 - 140		

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Quality Assurance Report (Continued)

Maxxam Job Number: MA7D4574

QA/QC Batch	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits		
Num Init			yyyy/mm/dd						
1419751 KJI	Method Blank	D10-Ethylbenzene	2007/12/05		113	%	30 - 130		
		D4-1,2-Dichloroethane	2007/12/05		109	%	60 - 140		
	RPD	F1 (C6-C10)	2007/12/05	ND, RDL=10		ug/g			
		F1 (C6-C10) - BTEX	2007/12/05	ND, RDL=10		ug/g			
1419773 BWW	MATRIX SPIKE	F1 (C6-C10) - BTEX	2007/12/05	NC		%	50		
		o-Terphenyl	2007/12/05	NC		%	50		
	Spiked Blank	F2 (C10-C16 Hydrocarbons)	2007/12/05		102	%	30 - 130		
		o-Terphenyl	2007/12/05		NC (4)	%	60 - 130		
1420553 RZH	Method Blank	F2 (C10-C16 Hydrocarbons)	2007/12/05		101	%	30 - 130		
		o-Terphenyl	2007/12/05		101	%	60 - 130		
	RPD	F2 (C10-C16 Hydrocarbons)	2007/12/05		96	%	30 - 130		
		F2 (C10-C16 Hydrocarbons)	2007/12/05	ND, RDL=10		ug/g			
[W22474-02]	MATRIX SPIKE	4-Bromofluorobenzene	2007/12/06		86	%	60 - 140		
		D4-1,2-Dichloroethane	2007/12/06		84	%	60 - 140		
		D8-Toluene	2007/12/06		107	%	60 - 140		
		Acetone (2-Propanone)	2007/12/06		111	%	24 - 171		
		Benzene	2007/12/06		85	%	39 - 137		
		Bromodichloromethane	2007/12/06		79	%	45 - 131		
		Bromoform	2007/12/06		81	%	44 - 131		
		Bromomethane	2007/12/06		83	%	20 - 146		
		Carbon Tetrachloride	2007/12/06		91	%	40 - 139		
		Chlorobenzene	2007/12/06		93	%	45 - 140		
		Chloroform	2007/12/06		85	%	48 - 128		
		Dibromochloromethane	2007/12/06		85	%	52 - 135		
		1,2-Dichlorobenzene	2007/12/06		96	%	39 - 145		
		1,3-Dichlorobenzene	2007/12/06		107	%	38 - 158		
		1,4-Dichlorobenzene	2007/12/06		108	%	35 - 159		
		1,1-Dichloroethane	2007/12/06		108	%	48 - 131		
		1,2-Dichloroethane	2007/12/06		78	%	43 - 123		
		1,1-Dichloroethylene	2007/12/06		105	%	50 - 134		
		cis-1,2-Dichloroethylene	2007/12/06		88	%	45 - 136		
		trans-1,2-Dichloroethylene	2007/12/06		94	%	45 - 138		
		1,2-Dichloropropane	2007/12/06		90	%	51 - 130		
		cis-1,3-Dichloropropene	2007/12/06		88	%	39 - 143		
		trans-1,3-Dichloropropene	2007/12/06		83	%	33 - 135		
		Ethylbenzene	2007/12/06		97	%	46 - 150		
		Ethylene Dibromide	2007/12/06		86	%	48 - 136		
		Methylene Chloride(Dichloromethane)	2007/12/06		85	%	47 - 124		
		Methyl Isobutyl Ketone	2007/12/06		92	%	48 - 133		
		Methyl Ethyl Ketone (2-Butanone)	2007/12/06		102	%	39 - 160		
		Methyl t-butyl ether (MTBE)	2007/12/06		85	%	37 - 150		
		Styrene	2007/12/06		84	%	27 - 148		
		1,1,1,2-Tetrachloroethane	2007/12/06		90	%	51 - 140		
		1,1,2,2-Tetrachloroethane	2007/12/06		81	%	46 - 128		
		Tetrachloroethylene	2007/12/06		102	%	45 - 154		
		Toluene	2007/12/06		83	%	30 - 158		
		1,1,1-Trichloroethane	2007/12/06		90	%	44 - 136		
		1,1,2-Trichloroethane	2007/12/06		87	%	56 - 135		
		Trichloroethylene	2007/12/06		90	%	39 - 146		
		Vinyl Chloride	2007/12/06		73	%	34 - 136		
		p+m-Xylene	2007/12/06		99	%	29 - 161		
		o-Xylene	2007/12/06		94	%	45 - 150		
		Spiked Blank		4-Bromofluorobenzene	2007/12/06		94	%	60 - 140

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Quality Assurance Report (Continued)

Maxxam Job Number: MA7D4574

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1420553 RZH	Spiked Blank	D4-1,2-Dichloroethane	2007/12/06		92	%	60 - 140	
		D8-Toluene	2007/12/06		102	%	60 - 140	
		Acetone (2-Propanone)	2007/12/06		97	%	60 - 140	
		Benzene	2007/12/06		102	%	60 - 140	
		Bromodichloromethane	2007/12/06		93	%	60 - 140	
		Bromoform	2007/12/06		99	%	60 - 140	
		Bromomethane	2007/12/06		75	%	60 - 140	
		Carbon Tetrachloride	2007/12/06		96	%	60 - 140	
		Chlorobenzene	2007/12/06		101	%	60 - 140	
		Chloroform	2007/12/06		96	%	60 - 140	
		Dibromochloromethane	2007/12/06		97	%	60 - 140	
		1,2-Dichlorobenzene	2007/12/06		103	%	60 - 140	
		1,3-Dichlorobenzene	2007/12/06		109	%	60 - 140	
		1,4-Dichlorobenzene	2007/12/06		111	%	60 - 140	
		1,1-Dichloroethane	2007/12/06		121	%	60 - 140	
		1,2-Dichloroethane	2007/12/06		93	%	60 - 140	
		1,1-Dichloroethylene	2007/12/06		105	%	60 - 140	
		cis-1,2-Dichloroethylene	2007/12/06		100	%	60 - 140	
		trans-1,2-Dichloroethylene	2007/12/06		102	%	60 - 140	
		1,2-Dichloropropane	2007/12/06		105	%	60 - 140	
		cis-1,3-Dichloropropene	2007/12/06		105	%	60 - 140	
		trans-1,3-Dichloropropene	2007/12/06		103	%	60 - 140	
		Ethylbenzene	2007/12/06		107	%	60 - 140	
		Ethylene Dibromide	2007/12/06		98	%	60 - 140	
		Methylene Chloride(Dichloromethane)	2007/12/06		97	%	60 - 140	
		Methyl Isobutyl Ketone	2007/12/06		110	%	60 - 140	
		Methyl Ethyl Ketone (2-Butanone)	2007/12/06		105	%	60 - 140	
		Methyl t-butyl ether (MTBE)	2007/12/06		99	%	60 - 140	
		Styrene	2007/12/06		98	%	60 - 140	
		1,1,1,2-Tetrachloroethane	2007/12/06		98	%	60 - 140	
		1,1,2,2-Tetrachloroethane	2007/12/06		98	%	60 - 140	
		Tetrachloroethylene	2007/12/06		101	%	60 - 140	
		Toluene	2007/12/06		101	%	60 - 140	
		1,1,1-Trichloroethane	2007/12/06		97	%	60 - 140	
		1,1,2-Trichloroethane	2007/12/06		98	%	60 - 140	
		Trichloroethylene	2007/12/06		100	%	60 - 140	
		Vinyl Chloride	2007/12/06		70	%	60 - 140	
		p+m-Xylene	2007/12/06		110	%	60 - 140	
		o-Xylene	2007/12/06		103	%	60 - 140	
		Method Blank	4-Bromofluorobenzene	2007/12/06		95	%	60 - 140
			D4-1,2-Dichloroethane	2007/12/06		98	%	60 - 140
			D8-Toluene	2007/12/06		101	%	60 - 140
			Acetone (2-Propanone)	2007/12/06	ND, RDL=0.1		ug/g	
			Benzene	2007/12/06	ND, RDL=0.002		ug/g	
			Bromodichloromethane	2007/12/06	ND, RDL=0.002		ug/g	
Bromoform	2007/12/06		ND, RDL=0.002		ug/g			
Bromomethane	2007/12/06		ND, RDL=0.003		ug/g			
Carbon Tetrachloride	2007/12/06		ND, RDL=0.002		ug/g			
Chlorobenzene	2007/12/06		ND, RDL=0.002		ug/g			
Chloroform	2007/12/06		ND, RDL=0.002		ug/g			
Dibromochloromethane	2007/12/06		ND, RDL=0.002		ug/g			
1,2-Dichlorobenzene	2007/12/06		ND, RDL=0.002		ug/g			
1,3-Dichlorobenzene	2007/12/06		ND, RDL=0.002		ug/g			
1,4-Dichlorobenzene	2007/12/06		ND, RDL=0.002		ug/g			
1,1-Dichloroethane	2007/12/06	ND, RDL=0.002		ug/g				



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Quality Assurance Report (Continued)

Maxxam Job Number: MA7D4574

QA/QC Batch	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
1420553 RZH	Method Blank	1,2-Dichloroethane	2007/12/06	ND, RDL=0.002		ug/g	
		1,1-Dichloroethylene	2007/12/06	ND, RDL=0.002		ug/g	
		cis-1,2-Dichloroethylene	2007/12/06	ND, RDL=0.002		ug/g	
		trans-1,2-Dichloroethylene	2007/12/06	ND, RDL=0.002		ug/g	
		1,2-Dichloropropane	2007/12/06	ND, RDL=0.002		ug/g	
		cis-1,3-Dichloropropene	2007/12/06	ND, RDL=0.002		ug/g	
		trans-1,3-Dichloropropene	2007/12/06	ND, RDL=0.002		ug/g	
		Ethylbenzene	2007/12/06	ND, RDL=0.002		ug/g	
		Ethylene Dibromide	2007/12/06	ND, RDL=0.002		ug/g	
		Methylene Chloride(Dichloromethane)	2007/12/06	ND, RDL=0.003		ug/g	
		Methyl Isobutyl Ketone	2007/12/06	ND, RDL=0.025		ug/g	
		Methyl Ethyl Ketone (2-Butanone)	2007/12/06	ND, RDL=0.025		ug/g	
		Methyl t-butyl ether (MTBE)	2007/12/06	ND, RDL=0.002		ug/g	
		Styrene	2007/12/06	ND, RDL=0.002		ug/g	
		1,1,1,2-Tetrachloroethane	2007/12/06	ND, RDL=0.002		ug/g	
		1,1,2,2-Tetrachloroethane	2007/12/06	ND, RDL=0.002		ug/g	
		Tetrachloroethylene	2007/12/06	ND, RDL=0.002		ug/g	
		Toluene	2007/12/06	ND, RDL=0.002		ug/g	
		1,1,1-Trichloroethane	2007/12/06	ND, RDL=0.002		ug/g	
		1,1,2-Trichloroethane	2007/12/06	ND, RDL=0.002		ug/g	
		Trichloroethylene	2007/12/06	ND, RDL=0.002		ug/g	
		Vinyl Chloride	2007/12/06	ND, RDL=0.002		ug/g	
		p+m-Xylene	2007/12/06	ND, RDL=0.002		ug/g	
		o-Xylene	2007/12/06	ND, RDL=0.002		ug/g	
		Xylene (Total)	2007/12/06	ND, RDL=0.002		ug/g	
	RPD [W22474-02]	Acetone (2-Propanone)	2007/12/06	NC		%	50
		Benzene	2007/12/06	NC		%	50
		Bromodichloromethane	2007/12/06	NC		%	50
		Bromoform	2007/12/06	NC		%	50
		Bromomethane	2007/12/06	NC		%	50
		Carbon Tetrachloride	2007/12/06	NC		%	50
		Chlorobenzene	2007/12/06	NC		%	50
		Chloroform	2007/12/06	NC		%	50
		Dibromochloromethane	2007/12/06	NC		%	50
		1,2-Dichlorobenzene	2007/12/06	NC		%	50
		1,3-Dichlorobenzene	2007/12/06	NC		%	50
		1,4-Dichlorobenzene	2007/12/06	NC		%	50
		1,1-Dichloroethane	2007/12/06	NC		%	50
		1,2-Dichloroethane	2007/12/06	NC		%	50
		1,1-Dichloroethylene	2007/12/06	NC		%	50
		cis-1,2-Dichloroethylene	2007/12/06	NC		%	50
		trans-1,2-Dichloroethylene	2007/12/06	NC		%	50
		1,2-Dichloropropane	2007/12/06	NC		%	50
		cis-1,3-Dichloropropene	2007/12/06	NC		%	50
		trans-1,3-Dichloropropene	2007/12/06	NC		%	50
		Ethylbenzene	2007/12/06	NC		%	50
		Ethylene Dibromide	2007/12/06	NC		%	50
		Methylene Chloride(Dichloromethane)	2007/12/06	NC		%	50
		Methyl Isobutyl Ketone	2007/12/06	NC		%	50
		Methyl Ethyl Ketone (2-Butanone)	2007/12/06	NC		%	50
		Methyl t-butyl ether (MTBE)	2007/12/06	NC		%	50
		Styrene	2007/12/06	NC		%	50
		1,1,1,2-Tetrachloroethane	2007/12/06	NC		%	50
		1,1,2,2-Tetrachloroethane	2007/12/06	NC		%	50
		Tetrachloroethylene	2007/12/06	NC		%	50

Barenco Inc  
Attention: Carolyn Singer  
Client Project #: 06043  
P.O. #: 06043  
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA7D4574

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1420553 RZH	RPD [W22474-02]	Toluene	2007/12/06	44.2		%	50
		1,1,1-Trichloroethane	2007/12/06	NC		%	50
		1,1,2-Trichloroethane	2007/12/06	NC		%	50
		Trichloroethylene	2007/12/06	NC		%	50
		Vinyl Chloride	2007/12/06	NC		%	50
		p+m-Xylene	2007/12/06	NC		%	50
		o-Xylene	2007/12/06	NC		%	50
		Xylene (Total)	2007/12/06	NC		%	50
		1420620 VPA	RPD	Moisture	2007/12/05	3.3	
1421057 MYG	RPD	Moisture	2007/12/06	0.6		%	50

ND = Not detected  
 NC = Non-calculable  
 RPD = Relative Percent Difference  
 SPIKE = Fortified sample  
 ( 1 ) The recovery in the matrix spike was not calculated ( NC ) , spike level <2 X native concentration.  
 ( 2 ) Please refer to General Comments page for specific clarification.  
 ( 3 ) The recovery for F1 (C6-C10) and Gasoline in the matrix spike was not calculated, spike level <2 X native concentration  
 ( 4 ) Matrix Spiked recoveries were not calculated (NC) because of high concentration of target compounds in the parent sample.

Validation Signature Page

Maxxam Job #: A7D4574

---

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

*Christina Nervo*

---

CHRISTINA NERVO, Scientific Services

*M. Riskallah*

---

MEDHAT RISKALLAH, Manager, Hydrocarbon Department

*Suzana Popovic*

---

SUZANA POPOVIC, Supervisor, Hydrocarbons

---

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

Your P.O. #: 06043  
Your Project #: 06043  
Your C.O.C. #: 00544845

**Attention: Carolyn Singer**  
Barenco Inc  
2561 Stouffville Rd  
PO Box 295  
Gormley, ON  
L0H 1G0

**Report Date: 2007/12/07**

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: A7D4555**  
**Received: 2007/12/04, 15:23**

Sample Matrix: Soil  
# Samples Received: 4

<u>Analyses</u>	<u>Quantity</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Analyzed</u>	<u>Laboratory Method</u>	<u>Method</u> <u>Reference</u>
Acid Extractable Metals in Soil by GF	4	2007/12/06	2007/12/07	CAM SOP-00404	EPA 7010
MOISTURE	4	N/A	2007/12/06	Ont SOP-0114	MOE HANDBOOK(1983)
PAH Compounds in Soil by GC/MS (SIM)	4	2007/12/05	2007/12/05	SOP - 00318	EPA 8270

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key  Valentina Ulloa  
07 Dec 2007 15:11:24 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

VALENTINA ULLOA, Project Manager  
Email: valentina.ulloa@maxxamanalytics.com  
Phone# (905) 817-5700 Ext:5821

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

Maxxam Job #: A7D4555  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**RESULTS OF ANALYSES OF SOIL**

Maxxam ID		W22393	W22394	W22395	W22396		
Sampling Date		2007/11/30	2007/11/30	2007/11/30	2007/11/30		
COC Number		00544845	00544845	00544845	00544845		
	<b>Units</b>	<b>TP1A</b>	<b>TP2A</b>	<b>TP3A</b>	<b>TP4A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>INORGANICS</b>							
Moisture	%	16	19	16	17	0.2	1421057

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7D4555  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)**

Maxxam ID		W22393	W22394	W22395	W22396		
Sampling Date		2007/11/30	2007/11/30	2007/11/30	2007/11/30		
COC Number		00544845	00544845	00544845	00544845		
	<b>Units</b>	<b>TP1A</b>	<b>TP2A</b>	<b>TP3A</b>	<b>TP4A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>METALS</b>							
Acid Extractable Arsenic (As)	ug/g	3	3	2	2	1	1421400

RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7D4555  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)**

Maxxam ID		W22393	W22394	W22395	W22396		
Sampling Date		2007/11/30	2007/11/30	2007/11/30	2007/11/30		
COC Number		00544845	00544845	00544845	00544845		
	<b>Units</b>	<b>TP1A</b>	<b>TP2A</b>	<b>TP3A</b>	<b>TP4A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PAHs</b>							
Benzo(a)pyrene	ug/g	ND	ND	ND	ND	0.005	1420476
Dibenz(a,h)anthracene	ug/g			ND		0.02	1420476
<b>Surrogate Recovery (%)</b>							
D10-Anthracene	%	120	101	112	110		1420476
D14-Terphenyl (FS)	%	117	95	109	105		1420476
D7-Quinoline	%	93	78	82	78		1420476
D8-Acenaphthylene	%	88	78	84	85		1420476

ND = Not detected  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A7D4555  
Report Date: 2007/12/07

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**GENERAL COMMENTS**

**Results relate only to the items tested.**



Barenco Inc  
Attention: Carolyn Singer  
Client Project #: 06043  
P.O. #: 06043  
Project name:

**Quality Assurance Report**  
Maxxam Job Number: MA7D4555

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits	
1420476 MWG	MATRIX SPIKE	D10-Anthracene	2007/12/05		115	%	30 - 130	
		D14-Terphenyl (FS)	2007/12/05		112	%	30 - 130	
		D7-Quinoline	2007/12/05		92	%	30 - 130	
		D8-Acenaphthylene	2007/12/05		84	%	30 - 130	
	Spiked Blank	Benzo(a)pyrene	2007/12/05		101	%	30 - 130	
		Dibenz(a,h)anthracene	2007/12/05		88	%	30 - 130	
		D10-Anthracene	2007/12/05		108	%	30 - 130	
		D14-Terphenyl (FS)	2007/12/05		107	%	30 - 130	
	Method Blank	D7-Quinoline	2007/12/05		102	%	30 - 130	
		D8-Acenaphthylene	2007/12/05		92	%	30 - 130	
		Benzo(a)pyrene	2007/12/05		95	%	30 - 130	
		Dibenz(a,h)anthracene	2007/12/05		84	%	30 - 130	
	RPD	D10-Anthracene	2007/12/05		112	%	30 - 130	
		D14-Terphenyl (FS)	2007/12/05		104	%	30 - 130	
		D7-Quinoline	2007/12/05		98	%	30 - 130	
		D8-Acenaphthylene	2007/12/05		88	%	30 - 130	
	1421057 MYG	RPD [W22393-02]	Benzo(a)pyrene	2007/12/05	ND, RDL=0.005		ug/g	
			Dibenz(a,h)anthracene	2007/12/05	ND, RDL=0.02		ug/g	
			D14-Terphenyl (FS)	2007/12/05	0.4		%	N/A
			Benzo(a)pyrene	2007/12/05	NC		%	50
1421400 CDH	MATRIX SPIKE [W22396-01]	Dibenz(a,h)anthracene	2007/12/05	NC		%	50	
		Moisture	2007/12/06	0.6		%	50	
		Acid Extractable Arsenic (As)	2007/12/07		104	%	75 - 125	
		QC STANDARD	2007/12/07		95	%	30 - 170	
1421400 CDH	RPD [W22396-01]	Method Blank	2007/12/07	ND, RDL=1		ug/g		
		Acid Extractable Arsenic (As)	2007/12/07	NC		%	35	

ND = Not detected  
N/A = Not Applicable  
NC = Non-calculable  
RPD = Relative Percent Difference  
QC Standard = Quality Control Standard  
SPIKE = Fortified sample

Validation Signature Page

Maxxam Job #: A7D4555

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The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

*Cristina Nervo*

---

CHRISTINA NERVO, Scientific Services

*Michael Wang*

---

MICHAEL WANG,

---

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Your P.O. #: 06043  
Your Project #: 06043  
Your C.O.C. #: 00555463

**Attention: Carolyn Singer**  
Barenco Inc  
2561 Stouffville Rd  
PO Box 295  
Gormley, ON  
L0H 1G0

**Report Date: 2008/04/11**

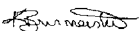
**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: A833981**  
**Received: 2008/04/08, 14:22**

Sample Matrix: Soil  
# Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Total Metals Analysis by ICP	1	2008/04/10	2008/04/10	CAM SOP-00408	EPA 6010

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key  Kristen Burmeister  
11 Apr 2008 15:52:22 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

SARA SAROOP, Campobello Customer service  
Email: Sara.Saroop@maxxamanalytics.com  
Phone# (905) 817-5700 Ext:5821

=====  
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For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

Page 1 of 5

Maxxam Job #: A833981  
Report Date: 2008/04/11

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)**

Maxxam ID		X97902		
Sampling Date		2008/04/07 12:30		
COC Number		00555463		
	<b>Units</b>	<b>TP2</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Metals</b>				
Acid Extractable Lead (Pb)	ug/g	6	5	1490914
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A833981  
Report Date: 2008/04/11

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**GENERAL COMMENTS**

Results relate only to the items tested.

Barenco Inc  
Attention: Carolyn Singer  
Client Project #: 06043  
P.O. #: 06043  
Project name:

Quality Assurance Report  
Maxxam Job Number: MA833981

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1490914 KCO	MATRIX SPIKE	Acid Extractable Lead (Pb)	2008/04/10		88	%	75 - 125
	QC STANDARD	Acid Extractable Lead (Pb)	2008/04/10		92	%	75 - 125
	Method Blank	Acid Extractable Lead (Pb)	2008/04/10	ND, RDL=5		ug/g	
	RPD	Acid Extractable Lead (Pb)	2008/04/10	NC		%	35

ND = Not detected  
NC = Non-calculable  
RPD = Relative Percent Difference  
QC Standard = Quality Control Standard

**Validation Signature Page**

**Maxxam Job #: A833981**

---

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

*Christina Nervo*

---

CHRISTINA NERVO, Scientific Services

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.



Your P.O. #: 06043  
Your Project #: 06043  
Your C.O.C. #: 00571802

**Attention: Carolyn Singer**

Barenco Inc  
2561 Stouffville Rd  
PO Box 295  
Gormley, ON  
L0H 1G0

**Report Date: 2008/04/10**

**CERTIFICATE OF ANALYSIS**

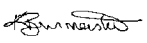
**MAXXAM JOB #: A833987**

**Received: 2008/04/08, 14:22**

Sample Matrix: Soil  
# Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
MOISTURE	1	N/A	2008/04/09	Ont SOP-0114	MOE HANDBOOK(1983)
Volatile Organic Compounds in Soil	1	N/A	2008/04/09	CAM SOP-00226	EPA 8260 modified

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key  Kristen Burmeister  
10 Apr 2008 12:57:53 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

SARA SAROOP, Campobello Customer service  
Email: Sara.Saroop@maxxamanalytics.com  
Phone# (905) 817-5700 Ext:5821

=====  
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

For Service Group specific validation please refer to the Validation Signature Page

Maxxam Job #: A833987  
Report Date: 2008/04/10

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**RESULTS OF ANALYSES OF SOIL**

Maxxam ID		X97912		
Sampling Date		2008/04/07		
		14:30		
COC Number		00571802		
	<b>Units</b>	<b>B2-A</b>	<b>RDL</b>	<b>QC Batch</b>

<b>Inorganics</b>				
Moisture	%	18	0.2	1490531
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

Maxxam Job #: A833987  
Report Date: 2008/04/10

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**VOLATILE ORGANICS BY GC/MS (SOIL)**

Maxxam ID		X97912		
Sampling Date		2008/04/07 14:30		
COC Number		00571802		
	<b>Units</b>	<b>B2-A</b>	<b>RDL</b>	<b>QC Batch</b>

Volatiles Organics				
Acetone (2-Propanone)	ug/g	ND	0.1	1490445
Benzene	ug/g	0.009	0.002	1490445
Bromodichloromethane	ug/g	ND	0.002	1490445
Bromoform	ug/g	ND	0.002	1490445
Bromomethane	ug/g	ND	0.003	1490445
Carbon Tetrachloride	ug/g	ND	0.002	1490445
Chlorobenzene	ug/g	ND	0.002	1490445
Chloroform	ug/g	ND	0.002	1490445
Dibromochloromethane	ug/g	ND	0.002	1490445
1,2-Dichlorobenzene	ug/g	ND	0.002	1490445
1,3-Dichlorobenzene	ug/g	ND	0.002	1490445
1,4-Dichlorobenzene	ug/g	ND	0.002	1490445
1,1-Dichloroethane	ug/g	ND	0.002	1490445
1,2-Dichloroethane	ug/g	ND	0.002	1490445
1,1-Dichloroethylene	ug/g	ND	0.002	1490445
cis-1,2-Dichloroethylene	ug/g	ND	0.002	1490445
trans-1,2-Dichloroethylene	ug/g	ND	0.002	1490445
1,2-Dichloropropane	ug/g	ND	0.002	1490445
cis-1,3-Dichloropropene	ug/g	ND	0.002	1490445
trans-1,3-Dichloropropene	ug/g	ND	0.002	1490445
Ethylbenzene	ug/g	0.009	0.002	1490445
Ethylene Dibromide	ug/g	ND	0.002	1490445
Methylene Chloride(Dichloromethane)	ug/g	ND	0.003	1490445
Methyl Isobutyl Ketone	ug/g	ND	0.025	1490445
Methyl Ethyl Ketone (2-Butanone)	ug/g	ND	0.025	1490445
Methyl t-butyl ether (MTBE)	ug/g	ND	0.002	1490445
Styrene	ug/g	ND	0.002	1490445
1,1,1,2-Tetrachloroethane	ug/g	ND	0.002	1490445
1,1,1,2,2-Tetrachloroethane	ug/g	ND	0.002	1490445
Tetrachloroethylene	ug/g	ND	0.002	1490445

ND = Not detected  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A833987  
Report Date: 2008/04/10

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**VOLATILE ORGANICS BY GC/MS (SOIL)**

Maxxam ID		X97912		
Sampling Date		2008/04/07 14:30		
COC Number		00571802		
	<b>Units</b>	<b>B2-A</b>	<b>RDL</b>	<b>QC Batch</b>

Toluene	ug/g	0.020	0.002	1490445
1,1,1-Trichloroethane	ug/g	ND	0.002	1490445
1,1,2-Trichloroethane	ug/g	ND	0.002	1490445
Trichloroethylene	ug/g	ND	0.002	1490445
Vinyl Chloride	ug/g	ND	0.002	1490445
p+m-Xylene	ug/g	0.011	0.002	1490445
o-Xylene	ug/g	0.003	0.002	1490445
Xylene (Total)	ug/g	0.014	0.002	1490445
<b>Surrogate Recovery (%)</b>				
4-Bromofluorobenzene	%	84		1490445
D4-1,2-Dichloroethane	%	82		1490445
D8-Toluene	%	107		1490445

ND = Not detected  
RDL = Reportable Detection Limit  
QC Batch = Quality Control Batch

Maxxam Job #: A833987  
Report Date: 2008/04/10

Barenco Inc  
Client Project #: 06043  
Project name:  
Your P.O. #: 06043  
Sampler Initials:

**GENERAL COMMENTS**

Results relate only to the items tested.

Barenco Inc  
Attention: Carolyn Singer  
Client Project #: 06043  
P.O. #: 06043  
Project name:

Quality Assurance Report  
Maxxam Job Number: MA833987

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1490445 RZH	MATRIX SPIKE	4-Bromofluorobenzene	2008/04/09		96	%	60 - 140
		D4-1,2-Dichloroethane	2008/04/09		84	%	60 - 140
		D8-Toluene	2008/04/09		103	%	60 - 140
		Acetone (2-Propanone)	2008/04/09		139	%	24 - 171
		Benzene	2008/04/09		80	%	39 - 137
		Bromodichloromethane	2008/04/09		85	%	45 - 131
		Bromoform	2008/04/09		108	%	44 - 131
		Bromomethane	2008/04/09		69	%	20 - 146
		Carbon Tetrachloride	2008/04/09		79	%	40 - 139
		Chlorobenzene	2008/04/09		105	%	45 - 140
		Chloroform	2008/04/09		83	%	48 - 128
		Dibromochloromethane	2008/04/09		92	%	52 - 135
		1,2-Dichlorobenzene	2008/04/09		111	%	39 - 145
		1,3-Dichlorobenzene	2008/04/09		133	%	38 - 158
		1,4-Dichlorobenzene	2008/04/09		111	%	35 - 159
		1,1-Dichloroethane	2008/04/09		85	%	48 - 131
		1,2-Dichloroethane	2008/04/09		75	%	43 - 123
		1,1-Dichloroethylene	2008/04/09		94	%	50 - 134
		cis-1,2-Dichloroethylene	2008/04/09		91	%	45 - 136
		trans-1,2-Dichloroethylene	2008/04/09		95	%	45 - 138
		1,2-Dichloropropane	2008/04/09		87	%	51 - 130
		cis-1,3-Dichloropropene	2008/04/09		85	%	39 - 143
		trans-1,3-Dichloropropene	2008/04/09		85	%	33 - 135
		Ethylbenzene	2008/04/09		112	%	46 - 150
		Ethylene Dibromide	2008/04/09		96	%	48 - 136
		Methylene Chloride(Dichloromethane)	2008/04/09		93	%	47 - 124
		Methyl Isobutyl Ketone	2008/04/09		84	%	48 - 133
		Methyl Ethyl Ketone (2-Butanone)	2008/04/09		116	%	39 - 160
		Methyl t-butyl ether (MTBE)	2008/04/09		91	%	37 - 150
		Styrene	2008/04/09		97	%	27 - 148
		1,1,1,2-Tetrachloroethane	2008/04/09		94	%	51 - 140
		1,1,2,2-Tetrachloroethane	2008/04/09		85	%	46 - 128
		Tetrachloroethylene	2008/04/09		129	%	45 - 154
		Toluene	2008/04/09		91	%	30 - 158
		1,1,1-Trichloroethane	2008/04/09		87	%	44 - 136
		1,1,2-Trichloroethane	2008/04/09		93	%	56 - 135
		Trichloroethylene	2008/04/09		103	%	39 - 146
		Vinyl Chloride	2008/04/09		73	%	34 - 136
		p+m-Xylene	2008/04/09		113	%	29 - 161
		o-Xylene	2008/04/09		107	%	45 - 150
	Spiked Blank	4-Bromofluorobenzene	2008/04/09		99	%	60 - 140
		D4-1,2-Dichloroethane	2008/04/09		90	%	60 - 140
		D8-Toluene	2008/04/09		103	%	60 - 140
		Acetone (2-Propanone)	2008/04/09		85	%	60 - 140
		Benzene	2008/04/09		90	%	60 - 140
		Bromodichloromethane	2008/04/09		89	%	60 - 140
		Bromoform	2008/04/09		115	%	60 - 140
		Bromomethane	2008/04/09		85	%	60 - 140
		Carbon Tetrachloride	2008/04/09		80	%	60 - 140
		Chlorobenzene	2008/04/09		105	%	60 - 140
		Chloroform	2008/04/09		88	%	60 - 140
		Dibromochloromethane	2008/04/09		96	%	60 - 140
		1,2-Dichlorobenzene	2008/04/09		103	%	60 - 140
		1,3-Dichlorobenzene	2008/04/09		122	%	60 - 140
		1,4-Dichlorobenzene	2008/04/09		102	%	60 - 140

Barenco Inc  
Attention: Carolyn Singer  
Client Project #: 06043  
P.O. #: 06043  
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA833987

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1490445 RZH	Spiked Blank	1,1-Dichloroethane	2008/04/09		91	%	60 - 140
		1,2-Dichloroethane	2008/04/09		81	%	60 - 140
		1,1-Dichloroethylene	2008/04/09		99	%	60 - 140
		cis-1,2-Dichloroethylene	2008/04/09		96	%	60 - 140
		trans-1,2-Dichloroethylene	2008/04/09		97	%	60 - 140
		1,2-Dichloropropane	2008/04/09		93	%	60 - 140
		cis-1,3-Dichloropropene	2008/04/09		90	%	60 - 140
		trans-1,3-Dichloropropene	2008/04/09		90	%	60 - 140
		Ethylbenzene	2008/04/09		113	%	60 - 140
		Ethylene Dibromide	2008/04/09		103	%	60 - 140
		Methylene Chloride(Dichloromethane)	2008/04/09		100	%	60 - 140
		Methyl Isobutyl Ketone	2008/04/09		103	%	60 - 140
		Methyl Ethyl Ketone (2-Butanone)	2008/04/09		98	%	60 - 140
		Methyl t-butyl ether (MTBE)	2008/04/09		100	%	60 - 140
		Styrene	2008/04/09		95	%	60 - 140
		1,1,1,2-Tetrachloroethane	2008/04/09		95	%	60 - 140
		1,1,2,2-Tetrachloroethane	2008/04/09		93	%	60 - 140
		Tetrachloroethylene	2008/04/09		108	%	60 - 140
		Toluene	2008/04/09		105	%	60 - 140
		1,1,1-Trichloroethane	2008/04/09		87	%	60 - 140
		1,1,2-Trichloroethane	2008/04/09		97	%	60 - 140
		Trichloroethylene	2008/04/09		100	%	60 - 140
		Vinyl Chloride	2008/04/09		76	%	60 - 140
		p+m-Xylene	2008/04/09		120	%	60 - 140
		o-Xylene	2008/04/09		106	%	60 - 140
	Method Blank	4-Bromofluorobenzene	2008/04/09		94	%	60 - 140
		D4-1,2-Dichloroethane	2008/04/09		89	%	60 - 140
		D8-Toluene	2008/04/09		107	%	60 - 140
		Acetone (2-Propanone)	2008/04/09	ND, RDL=0.1		ug/g	
		Benzene	2008/04/09	ND, RDL=0.002		ug/g	
		Bromodichloromethane	2008/04/09	ND, RDL=0.002		ug/g	
		Bromoform	2008/04/09	ND, RDL=0.002		ug/g	
		Bromomethane	2008/04/09	ND, RDL=0.003		ug/g	
		Carbon Tetrachloride	2008/04/09	ND, RDL=0.002		ug/g	
		Chlorobenzene	2008/04/09	ND, RDL=0.002		ug/g	
		Chloroform	2008/04/09	ND, RDL=0.002		ug/g	
		Dibromochloromethane	2008/04/09	ND, RDL=0.002		ug/g	
		1,2-Dichlorobenzene	2008/04/09	ND, RDL=0.002		ug/g	
		1,3-Dichlorobenzene	2008/04/09	ND, RDL=0.002		ug/g	
		1,4-Dichlorobenzene	2008/04/09	ND, RDL=0.002		ug/g	
		1,1-Dichloroethane	2008/04/09	ND, RDL=0.002		ug/g	
		1,2-Dichloroethane	2008/04/09	ND, RDL=0.002		ug/g	
		1,1-Dichloroethylene	2008/04/09	ND, RDL=0.002		ug/g	
		cis-1,2-Dichloroethylene	2008/04/09	ND, RDL=0.002		ug/g	
		trans-1,2-Dichloroethylene	2008/04/09	ND, RDL=0.002		ug/g	
		1,2-Dichloropropane	2008/04/09	ND, RDL=0.002		ug/g	
		cis-1,3-Dichloropropene	2008/04/09	ND, RDL=0.002		ug/g	
		trans-1,3-Dichloropropene	2008/04/09	ND, RDL=0.002		ug/g	
		Ethylbenzene	2008/04/09	ND, RDL=0.002		ug/g	
		Ethylene Dibromide	2008/04/09	ND, RDL=0.002		ug/g	
		Methylene Chloride(Dichloromethane)	2008/04/09	ND, RDL=0.003		ug/g	
		Methyl Isobutyl Ketone	2008/04/09	ND, RDL=0.025		ug/g	
		Methyl Ethyl Ketone (2-Butanone)	2008/04/09	ND, RDL=0.025		ug/g	
		Methyl t-butyl ether (MTBE)	2008/04/09	ND, RDL=0.002		ug/g	
		Styrene	2008/04/09	ND, RDL=0.002		ug/g	

Barenco Inc  
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Client Project #: 06043  
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Quality Assurance Report (Continued)

Maxxam Job Number: MA833987

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1490445 RZH	Method Blank	1,1,1,2-Tetrachloroethane	2008/04/09	ND, RDL=0.002		ug/g	
		1,1,2,2-Tetrachloroethane	2008/04/09	ND, RDL=0.002		ug/g	
		Tetrachloroethylene	2008/04/09	ND, RDL=0.002		ug/g	
		Toluene	2008/04/09	ND, RDL=0.002		ug/g	
		1,1,1-Trichloroethane	2008/04/09	ND, RDL=0.002		ug/g	
		1,1,2-Trichloroethane	2008/04/09	ND, RDL=0.002		ug/g	
		Trichloroethylene	2008/04/09	ND, RDL=0.002		ug/g	
		Vinyl Chloride	2008/04/09	ND, RDL=0.002		ug/g	
		p+m-Xylene	2008/04/09	ND, RDL=0.002		ug/g	
		o-Xylene	2008/04/09	ND, RDL=0.002		ug/g	
		Xylene (Total)	2008/04/09	ND, RDL=0.002		ug/g	
		RPD	Acetone (2-Propanone)	2008/04/09	NC		%
	Benzene		2008/04/09	NC		%	50
	Bromodichloromethane		2008/04/09	NC		%	50
	Bromoform		2008/04/09	NC		%	50
	Bromomethane		2008/04/09	NC		%	50
	Carbon Tetrachloride		2008/04/09	NC		%	50
	Chlorobenzene		2008/04/09	NC		%	50
	Chloroform		2008/04/09	NC		%	50
	Dibromochloromethane		2008/04/09	NC		%	50
	1,2-Dichlorobenzene		2008/04/09	NC		%	50
	1,3-Dichlorobenzene		2008/04/09	NC		%	50
	1,4-Dichlorobenzene		2008/04/09	NC		%	50
	1,1-Dichloroethane		2008/04/09	NC		%	50
	1,2-Dichloroethane		2008/04/09	NC		%	50
	1,1-Dichloroethylene		2008/04/09	NC		%	50
	cis-1,2-Dichloroethylene		2008/04/09	NC		%	50
	trans-1,2-Dichloroethylene		2008/04/09	NC		%	50
	1,2-Dichloropropane		2008/04/09	NC		%	50
	cis-1,3-Dichloropropene		2008/04/09	NC		%	50
	trans-1,3-Dichloropropene		2008/04/09	NC		%	50
	Ethylbenzene		2008/04/09	NC		%	50
	Ethylene Dibromide		2008/04/09	NC		%	50
	Methylene Chloride(Dichloromethane)		2008/04/09	NC		%	50
	Methyl Isobutyl Ketone		2008/04/09	NC		%	50
	Methyl Ethyl Ketone (2-Butanone)		2008/04/09	NC		%	50
	Methyl t-butyl ether (MTBE)		2008/04/09	NC		%	50
	Styrene		2008/04/09	NC		%	50
	1,1,1,2-Tetrachloroethane		2008/04/09	NC		%	50
	1,1,2,2-Tetrachloroethane		2008/04/09	NC		%	50
	Tetrachloroethylene		2008/04/09	NC		%	50
	Toluene	2008/04/09	18.9		%	50	
1,1,1-Trichloroethane	2008/04/09	NC		%	50		
1,1,2-Trichloroethane	2008/04/09	NC		%	50		
Trichloroethylene	2008/04/09	NC		%	50		
Vinyl Chloride	2008/04/09	NC		%	50		
p+m-Xylene	2008/04/09	19.7		%	50		
o-Xylene	2008/04/09	NC		%	50		
Xylene (Total)	2008/04/09	19.4		%	50		
1490531 FOT	RPD	Moisture	2008/04/09	3.9		%	50

ND = Not detected  
NC = Non-calculable  
RPD = Relative Percent Difference  
SPIKE = Fortified sample



**Validation Signature Page**

**Maxxam Job #: A833987**

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The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

*Christina Nervo*

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CHRISTINA NERVO, Scientific Services

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.