PHASE II/III ENVIRONMENTAL SITE ASSESSMENT
CAMBRIDGE BAY AIRPORT, CAMBRIDGE BAY, NUNAVUT

Prepared for:

Public Works & Government Services Canada
800 Burrard Street
Vancouver, BC
V6Z 2V8

On behalf of Transport Canada

Prepared by:

Franz Environmental Inc.
308-1080 Mainland Street
Vancouver, BC
V6B 2T4

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project No. 1748-0901
March 2010

PHASE II/III ENVIRONMENTAL SITE ASSESSMENT
DRAFT FIELD REPORT

CAMBRIDGE BAY AIRPORT CAMBRIDGE BAY, NUNAVUT

Prepared for:

Public Works & Government Services Canada
800 Burrard Street
Vancouver, BC
V6Z 2V8

On behalf of Transport Canada

Prepared by:

Franz Environmental Inc.
308-1080 Mainland Street
Vancouver, BC
V6B 2T4

Steve Livingstone, M.Sc., P.Geo.
James Smith, BSc.
Viviane Dubois Cote, M.Sc., P. Geo.
Jennifer Keenliside, HBSc., CEPIT.
Miguel Madrid, M.Sc.

Project No. 1748-0901
March 2010

EXECUTIVE SUMMARY

Franz Environmental Inc. (FRANZ) was retained by Public Works and Government Services Canada (PWGSC) and Transport Canada (TC), Prairie & Northern Region and Environmental affairs Division to complete a Phase II/III Environmental Site Assessment (ESA) at the Cambridge Bay Airport, Cambridge Bay, Nunavut. The work was completed to identify environmental liabilities and assess remediation/risk management options.

The Cambridge Bay Airport is near the West Arm of Cambridge Bay, 3km west of the Hamlet of Cambridge Bay on the southeast side of Victoria Island in Nunavut, Canada. The site covers an area of approximately 140 ha. The site has been used as an Airport since the 1950s. Operations conducted on site include: airline offices, airport manager office, petroleum/fuel storage and distribution, aircraft and vehicle maintenance.

The scope of the investigation addressed terms stipulated in the June 2009 request for proposal (RFP) and included:

- Reviewing historical environmental reports and archival information;
- Developing a detailed sampling and analytical plan;
- Conducting intrusive soil, groundwater, and vegetation investigation to assess the level and extent of contamination from identified APECs; and
- Conducting a preliminary remedial options analysis/plan.

The work was completed to identify environmental liabilities and assess remediation/risk management options at 6 areas of potential environmental concern (APECs). Identified APECs and potential contaminants of concern (PCOCs) are summarized in Table A below:

Table A: Summary of APECs and PCOCs

APEC	DESCRIPTION	PCOCs
1	Historical Screening Plant / Boneyard	BTEX, F1-F4, PAH, VOC, Glycols, Metals, PCBs and Pesticides
2	TC Shoreline Disposal Area	BTEX, F1-F4, PAH, VOC, Metals, PCBs and Pesticides
3	Firefighter Training Area	BTEX, F1-F4, PAH, VOC, Lead, PCBs and PFOS.
4	Former F.H. Ross Tank Site	BTEX, F1-F4, PAH and Metals.
5	Former AST Location North of Building T-5	BTEX, F1-F4, PAH, VOC and Metals.
6	Former AST Location West of Building T-4	BTEX, F1-F4, PAH, VOC and Metals.

The intrusive site investigation conducted by FRANZ in 2009 included installing thirty seven (37) test pits, fifteen (15) groundwater monitoring wells installed, as well as collecting one (1) surface water sample and seven (7) aboveground foliage vegetation samples within the 6 APECs. The ESA identified the following 3 Areas of Environmental Concern (AECs):

Table B: Summary of AECs and COCs

AEC	Description	Contaminated Media	COC	Estimated Volume (m^3)	Estimated Area (m^2)
2	TC Shoreline Area	Soil	Cu and As	20	-
3	Firefighter Training Area	Soil	Benzene, Ethylbenzne and F2 fraction	15,000	-
		Groundwater	Benzene, Naphthalene and Pb	-	2,500
4	Former F.H. Ross Tank Site	Soil	BTEX, F1-F4 fractions and Pb	3,500 (Pb ≈ 10)	-
		Groundwater	Naphthalene, Toluene, and Zn	-	300

FRANZ recommends PHC contaminated soils and groundwater (including metals) in AEC 3, and 4 be excavated and treated in an onsite land treatment facility (LTF). PHC and lead co-

contaminated soils in AEC 4 should be segregated in the LTF and metals contamination disposed/treated offsite or managed (e.g., risk assessment) onsite. Additional investigation should be conducted at both AEC 3 and 4 to fully delineate the extent of the leading edge of PHC contaminated soil.

FRANZ recommends additional investigation at AECs 2 and 4 to delineate the extent of metals impacted soils and groundwater. Post-remediation groundwater monitoring should be conducted at AECs 3 and 4 to assess if COCs (e.g., Zn, naphthalene) attenuate following soil remediation activities. Chemical analytical results can be utilized in support of a detailed ecological and human health risk assessment for these AECs.

TABLE OF CONTENTS

LIST OF FIGURES (APPENDIX A) VIII

LIST OF TABLES (IN TEXT) VIII

LIST OF APPENDICES IX

1.0 INTRODUCTION 1

1.1 PURPOSE AND PROJECT OBJECTIVES 1
1.2 SITE BACKGROUND 2
1.3 PROJECT TEAM 2

2.0 STUDY AREA CHARACTERISTICS 3

2.1 SITE OVERVIEW 3
2.2 CURRENT AND FUTURE LAND USE 3
2.3 CLIMATE 3
2.4 NATURAL ENVIRONMENT – OVERVIEW 3
2.4.1 Species at Risk 4

3.0 PHYSICAL SITE CHARACTERISTICS 5

3.1 REGIONAL AND LOCAL TOPOGRAPHY 5
3.2 REGIONAL AND LOCAL DRAINAGE 5
3.3 GEOLOGICAL CHARACTERIZATION 5
3.3.1 Regional Bedrock Geology 5
3.3.2 Regional Surficial Soils 6
3.3.3 Local Scale Geology 6
3.4 HYDROGEOLOGICAL CHARACTERIZATION 7
3.4.1 Regional Hydrogeology 7
3.4.2 Site Hydrogeology 7

4.0 HISTORICAL ARCHIVAL REVIEW 8

4.1 SOURCES OF INFORMATION 8
4.2 AERIAL PHOTOGRAPHS 8
4.3 PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND OUTCOMES 10

5.0 SUMMARY OF APECS AND PCOCS 13

5.1 APEC 1 – HISTORICAL SCREENING PLANT / BONEYARD 13
5.2 APEC 2 – TC SHORELINE DISPOSAL AREA 13
5.3 APEC 3 – FIRE TRAINING AREA 14
5.4 APEC 4 – FORMER F.H. ROSS TANK SITE 14
5.5 APEC 5 – FORMER AST LOCATION NORTH OF BUILDING T-5 15
5.6 APEC 6 – FORMER AST LOCATION WEST OF BUILDING T-4 15
5.7 APEC AND PCOCS SUMMARY 16

6.0 REGULATORY REVIEW AND ENVIRONMENTAL QUALITY CRITERIA 17

6.1 FEDERAL GUIDELINES 17
6.2 TERRITORIAL/PROVINCIAL GUIDELINES 19
6.3 OTHER GUIDELINES 19
6.4 DESIGNATED SUBSTANCES 20
6.5 VEGETATION EVALUATION GUIDELINES 20

7.0 FIELD INVESTIGATION 21

7.1 FIELD RECONNAISSANCE 21
7.2 PREPARATION OF A DETAILED SAMPLING PLAN 22
7.3 HEALTH AND SAFETY PROCEDURES 22
7.4 SUBSURFACE SAMPLING METHODOLOGY 23
7.4.1 Test Pit Excavations and Soil Sampling 23
7.4.2 Field Vapour Screening 23
7.4.3 Groundwater Sampling 24
7.5 SURFACE WATER SAMPLING 24
7.6 VEGETATION SAMPLING 25
7.7 SELECTION CRITERIA FOR SOIL AND GROUNDWATER CHEMICAL ANALYSES 25
7.8 SITE SURVEY 25

8.0 QA/QC 26

8.1 DATA REDUCTION AND VALIDATION 26
8.2 DATA VALIDATION OF QA/QC SAMPLES 27

9.0 INVESTIGATION RESULTS AND DISCUSSION 29

9.1 BACKGROUND METAL SAMPLING 29
9.2 APEC 1 –SCREENING PLANT / BONEYARD 29
9.3 APEC 2 – TC SHORELINE DISPOSAL AREA 30
9.4 APEC 3 – FIRE TRAINING AREA 31
9.5 APEC 4 – FORMER F.H. ROSS TANK SITE 33
9.6 APEC 5 – FORMER AST LOCATION NORTH OF BUILDING T-5 34
9.7 APEC 6 – FORMER AST LOCATION WEST OF BUILDING T-4 35

10.0 AREAS OF ENVIRONMENTAL CONCERN 36

11.0 NCSCS SCORING 37

12.0 CONCEPTUAL REMEDIAL ACTION PLAN 38

12.1 CONTAMINANT IMPACTS 38
12.2 REMEDIAL OPTIONS REVIEWED 38
12.3 REMEDIAL OPTIONS RANKING 39
12.4 PREFERRED REMEDIAL OPTIONS 39
12.4.1 Option 1 – Excavation and Onsite biological Ex-situ Remediation 39
12.4.2 Option 2 – Risk Assessment 40
12.4.3 Option 3 – Excavation and Offsite Disposal 40
12.5 SUMMARY OF MITIGATION COSTS 40

13.0 CONCLUSIONS AND RECOMMENDATIONS 41

14.0 REFERENCES 44

15.0 LIMITATIONS 45

List of Figures (Appendix A)

Figure 1: Study Area Location
Figure 2: APEC Locations
Figure 3: APEC 1 – Screening Plant/Boneyard Sampling Locations and Analytical Results - Soil and Vegetation
Figure 4: APEC 1 – Screening Plant/Boneyard Sampling Locations and Analytical Results - Groundwater
Figure 5: APEC 2 – Shoreline Disposal Area Sampling Locations and Analytical Results - Soil, Groundwater and Vegetation
Figure 6: APEC 3 – Former Fire Training Area Sampling Locations and Analytical Results – Soil and Vegetation
Figure 7: APEC 3 – Former Fire Training Area Sampling Locations and Analytical Results - Groundwater
Figure 8: APEC 4 – Former F.H. Ross Tank Site Sampling Locations and Analytical Results – Soil
Figure 9: APEC 4 – Former F.H. Ross Tank Site Sampling Locations and Analytical Results – Surface and Groundwater
Figure 10: APEC 5 and 6 – Sampling Locations and Analytical Results for Soil and Groundwater
Figure 11: AEC 2 – Approximate Extent of Contamination
Figure 12: AEC 3 – Approximate Extent of Contamination
Figure 13: AEC 4 – Approximate Extent of Contamination

List of Tables (in text)

Table 1: Summary of Aerial Photo Review
Table 2: Findings and recommendations from subsurface investigation (Dillon, 1994)
Table 3: Findings and recommendations from subsurface investigation (AGRA, 1999)
Table 4: Summary of APECs and PCOCs
Table 5: Summary of Criteria for the Selection of Environmental Quality Guidelines
Table 6: Summary of Field Observations
Table 7: AECs at the Cambridge Bay Airport
Table 8: APECs at the Cambridge Bay Airport
Table 9: AEC Findings and Recommendations at the Cambridge Bay Airport

List of Appendices

Appendix A: Figures
Appendix B: Aerial Photographs
Appendix C: Test Pit and Borehole Logs
Appendix D: Site Photos
Appendix E: Health and Safety Plan
Appendix F: Certified Laboratory Reports
Appendix G: Analytical Results
Appendix H: Field Measurements
Appendix I: NCSCS Scoresheets
Appendix J: Remedial Options Analysis
Appendix K: Remediation Cost Estimate (5 year plan)

1.0 INTRODUCTION

FRANZ Environmental Inc. (FRANZ) was retained by Public Works and Government Services Canada (PWGSC) and Transport Canada (TC), Prairie & Northern Region and Environmental affairs Division to complete a Phase II/III Environmental Site Assessment (ESA) at the Cambridge Bay Airport, Cambridge Bay, Nunavut (Figure 1).

This project was completed based on discussions with PWGSC/Transport Canada, a review of the Terms of Reference (ToR) and our July 2009 Proposal P-3027 titled "Proposal for Environmental Site Investigation, Cambridge Bay Landfill/Boneyard Cambridge Bay, Nunavut".

1.1 Purpose and Project Objectives

The purpose of this project was to undertake a Phase II and Phase III Environmental Site Assessment (ESA) at six areas of potential environmental concern (APECs) at the Cambridge Bay Airport, which are:

- APEC 1 – Screening Plant / Boneyard
- APEC 2 – TC Shoreline Disposal Area
- APEC 3 – Fire Training Area
- APEC 4 – Former F.H. Ross Tank Site
- APEC 5 – Former AST Location North of Building T-5
- APEC 6 – Former AST Location West of Building T-4

Transport Canada will use this report to demonstrate due diligence and reduce liabilities in order to direct remediation/risk management activities these sites. Project objectives include the following:

- Review of previous studies and reports for the site;
- Obtain representative soil, water and vegetation samples in all six APECs;
- Determine the source, type, and nature of potential contamination in soil, water, and vegetation and identify areas of environmental concern (AEC);
- Calculate NCS scores for each AEC; and
- Conduct a remedial options analysis/plan.

1.2 Site Background

The Cambridge Bay Airport is near the West Arm of Cambridge Bay, 3km west of the Hamlet of Cambridge Bay on the southeast side of Victoria Island in Nunavut, Canada. The Airport has been in operation since the 1950s and serves as a major transportation centre in the Central Arctic. The Airport's administration and control was transferred from Transport Canada to the Government of the Northwest Territories in 1995. Since 1999, the airport has been owned by the Government of Nunavut (GN).

The following buildings are present in the north-eastern part of the site: a terminal building, the airport maintenance garage as well as five other buildings used for storage. The Airport runway is located southwest of the buildings, parallel to the shore. A gravel road looping around the runway from the terminal building is also present onsite.

1.3 Project Team

This project was undertaken by a multi-disciplinary team of experienced professionals. Key individuals and their respective roles are summarized below:

- Steve Livingstone, M.Sc., P.Geo, Senior Hydrogeologist, Reviewer
- James Smith, B.Sc., Environmental Scientist, Project Manager
- Viviane Dubois Cote, M.Sc., P.Geo, Environmental Scientist
- Miguel Madrid, M.Sc., Environmental Scientist
- Jennifer Keenliside, HBSc., CEPIT, Junior Environmental Scientist
- Elliot Tonasket, Environmental Technician, Columbia Environmental Ltd.

2.0 STUDY AREA CHARACTERISTICS

2.1 Site Overview

The Airport is a civil airport located near the West Arm of Cambridge Bay, 3km west of the Hamlet of Cambridge Bay. The following buildings are present in the north-eastern part of the site: the Air Terminal Building (ATB), the airport maintenance garage as well as five other buildings used for storage. The Airport runway is located southwest of the buildings, parallel to the shore. A gravel road looping around the runway from the terminal building is also present onsite. The site covers an area of approximately 140 ha.

2.2 Current and Future Land Use

The site has been used as an Airport since the 1950s. Operations conducted on site include the following: airline offices, airport manager office, petroleum/fuel storage and distribution, aircraft and vehicle maintenance.

FRANZ understands that there are no current plans for development on the airport property.

2.3 Climate

Cambridge Bay is within a climatic zone characteristic of the Arctic Circle. The average daily temperature range is –33.0 ºC to 8.4 ºC. The average monthly temperature is below freezing for ten months of the year. The average annual precipitation is 138.8 mm. There is 69.6 mm annual rainfall and 82.1 mm annual snowfall (www.climate.weatheroffice.ec.gc.ca). The site is in the zone of continuous permafrost. Polar desert conditions limit vegetation to prostrate dwarf trees and lichens and mosses.

2.4 Natural Environment – Overview

The study area lies within the Arctic Lowlands physiographic region with local relief generally measuring less than 20 m. Several water bodies surround the Airport. The west arm of Cambridge Bay (marine environment) abuts the property boundary and is approximately 300 m south of the airport runway. An offsite freshwater lake abuts the north property boundary with several smaller freshwater bodies east and west of the runway.

Regionally, predominant vegetation consists primarily of tundra. Shrubs are less common, giving way to communities of grasses, sedge, lichens, mountain avens, and other flowers.

Mammalian species in the area include caribou, red fox, musk-ox, and brown and collared lemmings. Various bird species frequent the area on a regular/seasonal basis. Swans and geese were observed during the site visit. M.M. Dillon (1994) indicated geese and seagulls are likely attracted by the fact that the airport runway is clear of snow in the spring and must occasionally be chased off; historically, a few bird strikes have been reported.

Aquatic species, including ringed seals, inhabit the west arm and occasionally the shoreline to the south and west of the Airport. Char and lake trout return to inland freshwater to spawn in the late summer or early fall. Other fish in the freshwater bodies include cisco (M.M. Dillon, 1994). The most sensitive fisheries in the area include arctic char and lake trout.

There are no agriculture or forestry activities in the area.

2.4.1 Species at Risk

Data from available resources on regional species form the basis for developing a list of species that use or could potentially use or inhabit the sites. This list focused on species designated as protected under the federal Species at Risk Act (SARA).

The SARA database was searched for information on species at risk that may occupy the Cambridge Bay Airport sites and the risk status for each species (endangered, threatened and special concern). The following at-risk species was identified in the database as having habitat located in the vicinity of the Cambridge Bay Airport sites:

- Bowhead Whale *(Balaena mysticetus)* Bering-Chukchi - Beaufort population – Special Concern, Schedule 1.

3.0 PHYSICAL SITE CHARACTERISTICS

This section describes the physical setting of the site, including topography, drainage as well as subsurface and surficial geology.

3.1 Regional and Local Topography

Topographic Map 77D2 shows that the regional topography in the Cambridge Bay area is relatively flat, with elevations ranging between 0 and 80 m above mean sea level (amsl). A few peaks of higher elevation are observed on the topographic map. Mount Pelly, 17 km northeast of the Airport, is the highest peak in the area and reaches 600 m amsl.

The approximate elevation at the Airport is 15m amsl. The site topography is flat, except along the shores of Cambridge Bay, where it drops steeply to sea level.

3.2 Regional and Local Drainage

The Airport regional drainage is part of the Arctic Ocean Drainage Basin. Site surface water is inferred to follow topography and drain to the South and Southwest, towards the Cambridge Bay.

3.3 Geological Characterization

This section summarizes information collected with regards to regional and site specific bedrock and soil characteristics.

3.3.1 Regional Bedrock Geology

Regional bedrock geology consists of sedimentary rocks of the Arctic Platform. According to Geological Survey of Canada (Harrison et al., 2008), this formation is up to 3 km thick and is overlying the Canadian Shield. In and around the Airport, bedrock geology consists of Cambrian to Devonian flat-lying to gently dipping carbonates.

A study of the mineral potential of the Canadian Arctic islands, conducted by Dewing et al. (2007) indicated that although little exploration has been conducted on Victoria Island, it has mineral exploration potential for copper deposits, base metals volcanic massive sulphide (VMS) deposits and Zn-Pb Mississippi Valley Types (MVT) deposits. According to the Geological Survey of Canada: Mineral Deposits of Canada website (http://gsc.nrcan.gc.ca/mindep/) VMS

deposits are major sources of zinc, copper, lead, silver and gold, and significant sources for cobalt, tin, selenium, manganese, cadmium, indium, bismuth, tellurium, gallium, and germanium. They also indicate that lead and zinc are the primary commodities of MVT deposits, with arsenic, copper, cobalt, nickel, cadmium, silver, indium, germanium, gallium, antimony, bismuth, molybdenum, selenium, and gold commonly associated.

3.3.2 Regional Surficial Soils

The Geological Survey of Canada (Sharpe, 1993) indicates that glacial till deposits are predominant in the Airport area. The deposits are 1 to 5 m thick and are locally interbedded or underlaid by sand and gravel. The Canada Permafrost Map (NRCAN, 1995) indicates that the Airport is in a zone of continuous permafrost. Permafrost conditions have been documented throughout the airport property indicating an active layer of 1.5 to 2.4 m below ground surface (bgs) (M.M. Dillon, 1994).

3.3.3 Local Scale Geology

The geology of Cambridge Bay airport consists of a varying thickness of glacial and glaciofluvial deposits overlying a bedrock sequence of Silurian and Ordovician sediments. The surficial geology is characterized by the presence of extensive glacial and glaciofluvial deposits consisting primarily of sandy clay and silt tills containing abundant fragments of weathered bedrock.

Soils encountered during sampling conducted at the Airport in August 2009 are described in Section 9 and in the Test Pit and Borehole Logs (Appendix C). In some areas, peat or organic topsoil was observed as a surficial layer (no thicker than 0.15 m). Soils observed in the test pits conducted consist mostly of medium sand to sandy silt, with some gravel and cobbles, light grey to medium brown. Water seepage was encountered at depths ranging from 0.5 to 1.3m below ground surface (bgs) in some of the test pits. When possible, test pits were conducted to permafrost, which was encountered between 1.3 and 2.2 m bgs.

At shoreline sample locations, weathered clay overlying sand and silt was observed.

3.4 Hydrogeological Characterization

This section summarizes information collected with regards to regional and site specific hydrogeology.

3.4.1 Regional Hydrogeology

Victoria Island lies within the continuous permafrost zone. Permafrost occurs on the earth's surface where the ground has remained below 0°C continuously for a minimum of two years. In the continuous permafrost zone the ground remains frozen during the entire year, except for the uppermost soil layer which thaws out during the short summer. This upper layer of soil that is subjected to the annual freeze-thaw cycle is known as the active layer.

Groundwater in the continuous permafrost zone is confined to this shallow active layer. Based on the regional geology and the presence of permafrost, the groundwater flow is likely complex and controlled by topography, surface water bodies and bedrock structure. Vertical groundwater flow is limited by the shallow permafrost. The period of groundwater flow is highly influenced by climatic conditions and flow is likely also limited to the short summer season when the active layer thaws, thus allowing water to flow in this horizon. It is expected that the surface water bodies are expressions of the water table.

3.4.2 Site Hydrogeology

Land around the Cambridge Bay Airport is surrounded by lakes to the north and west, and the west arm of Cambridge Bay to the south. During subsurface investigation, permafrost was observed at depths between 1.3 and 2.1 m bgs. Groundwater flow is expected to follow surface topography, and appears to be directed towards the south and southeast, into Cambridge Bay, which is consistent with the local topography.

4.0 HISTORICAL ARCHIVAL REVIEW

This section presents information collected from various historical documents.

4.1 Sources of Information

The main sources of historical/archival information were obtained from aerial photographs and previous environmental reports. The historical reports reviewed include:

- M. M. Dillon Limited, 1994. Environmental Baseline Study.
- Dillon Consulting Limited, 1999. Cambridge Bay Environmental Baseline Study Reaudit. Proposal. August 1999.
- AGRA Earth & Environmental Limited, 1999. Remedial Action Plan Follow- Up, Cambridge Bay Airport, Nunavut Territory. Draft Report. November 1999.

4.2 Aerial Photographs

Aerial photographs were obtained from the National Air Photo Library in Ottawa, Ontario. Historical land use changes as well as potential sources of environmental impacts observed from the photographs were noted.

Aerial photographs of the area taken in 1951, 1960, 1965, 1969, 1976, 1981, 1985 and 1987 were available and are presented in Appendix B. Observations about current and historical land use for the subject properties and surrounding properties that were noted during the review of aerial photographs are summarized in Table 1.

Table 1: Summary of Aerial Photo Review

Date	Roll # (Scale)	Review
1951	A13313 – 376 (1:40,000)	The Site is vacant undeveloped land. No evidence of anthropogenic activity at or near the Site was identified.
1960	A17174-13, 33, 34, 35 (1:10,000)	The Airport has been constructed. A screening plant / boneyard is in use approximately 100m south of the runway; beyond the extent of APEC 1. A significant amount of grading is evident along the road that runs parallel to and between the runway and shoreline. Surface soils were graded towards the shoreline cliffs. Five ASTs (APEC 3) are present about 150m southeast of the ATB. The AST north of building T-5 (APEC 5) is present. The maintenance building is also now present.
1965	A19352 – 13, 14 (1:12,000)	The aircraft apron has been constructed between the runway and the Airport Terminal Building (ATB). Five ASTs (APEC 3) are present about 150m southeast of the ATB.
1969	A21284 – 16, 28 (1:12,000)	The 5 ASTs at APEC 3 are no longer present. . Three ASTs (APEC 4) are present about 60m south of the ATB.
1976	A24498 – 61, 68, 96 (1:5,000)	Machinery and gravel piles are observed directly south APEC 1. Metal drums and other structures are present along the shoreline parallel to the runway and at the northwest end of the Airport (APEC 2). The fire training area (FTA - APEC 3) is present along the west portion of the Airport.
1981	A25829 – 109, 112, 116 (1:5,000)	Machinery is observed south of APEC 1. The FTA (APEC 3) has been expanded and there is visual evidence of oil/diesel staining and a mock fuselage. A partial berm has been constructed around the tanks at APEC 4.
1985	A26791 – 15, 24, 78 (1:5,000)	The FTA (APEC 3) has increased significantly in size since 1981, and a berm has been built around fuselage area, where oil / diesel fuel appears to have accumulated. A small building has been built behind the 3 ASTs at APEC 4 to the northwest and the berm now encloses the ASTs.
1987	A27142 – 45, 47 (1:12,000)	The area of suspect soil staining at the FTA (APEC 3) has increased to about 1728m^2, almost reaching the berm on all sides. No other significant changes are observed.

4.3 Previous Environmental Investigations and Outcomes

Three environmental investigations have been conducted at the Airport over about the last 15 years to identify and delineate potential contamination. One report (Bonley, 1992) was not available for review; however, the following reports were reviewed and relevant information summarized:

- M. M. Dillon Limited, 1994. Environmental Baseline Study;
- AGRA Earth & Environmental Limited, 1999. Remedial Action Plan Follow-Up, Cambridge Bay Airport, Nunavut Territory. Draft Report. November 1999.

The following summarizes our review of historical reports:

M.M. Dillon Limited, 1994

M.M. Dillon (Dillon) conducted an Environmental Baseline Study (EBS) at the Airport in 1994. Most of the facilities operated by TC were visited as part of a site audit. The EBS also included a hydrogeological investigation designed to characterize the subsurface conditions and identify potential environmental concerns in APECs. Hazardous materials and fuels under TC operations were quantified and a storage tank inventory was prepared. Regulatory compliance was assessed and a mitigation action plan including cost estimates and priority rating was prepared.

Dillon identified potential environmental issues at 6 APECs. Preliminary soil and groundwater assessment were conducted at the site. For analysed parameters, soil concentrations were compared against Government of the Northwest Territories (GNWT) Environmental Guidelines for Site Remediation (Draft, 1994) and CCME Interim Canadian Environmental Guidelines for Contaminated Sites (1991). Groundwater concentrations where compared against Quebec Ministry of Environment (MOE) Summary of Contaminant Rehabilitation Policy (1988). Table 2 summarizes the findings and recommendations from subsurface investigation conducted at the APECs during the EBS.

Table 2: Findings and recommendations from subsurface investigation (Dillon, 1994)

APEC	Description	Investigation conducted	Investigation results		Recommendations
			Soil	Groundwater	
1	Screening Plant/ Boneyard	2 test pits, 1 installed as a monitoring well	No issues	Groundwater well dry.	Re-attempt groundwater sampling
2	TC Shoreline Disposal Area	1 test pit	No issues	Not sampled	Continue clean-up operations
3	Firefighting Training Area	1 grab sample and 3 test pits, 2 installed as monitoring wells	TPHC concentrations greater than GNWT guideline	TPHC, benzene and xylenes concentrations greater than Quebec MOE criteria	Annual monitoring and sampling of groundwater.
4	Former F.H. Ross Tank Site	1 test pit, installed as a monitoring well	No issues	No issues	Re-sampling of monitoring well
5	Former AST Location North of building T-5	1 test pit, installed as a monitoring well	TPHC concentrations greater than GNWT guideline.	TPHC benzene, toluene and xylenes concentrations greater than Quebec MOE criteria	Excavation and treatment of contaminated soil when upgrading existing AST. Annual monitoring of groundwater well until area is remediated.
6	Former AST Location West of Building T-4	1 test pit	No issues	Not sampled	No action recommended

*TPHC is for Total Petroleum Hydrocarbon in soil and Total Purgeable Hydrocarbon in groundwater

AGRA Earth & Environmental Limited, 1999

In 1999, AGRA Earth & Environmental Limited (AGRA) conducted a follow-up site investigation of the Airport to document the status of environmental mitigation activities, identify other areas of environmental non-compliance that were not assessed in the 1994 EBS, and to update the Airport remedial action plan .

Soil and groundwater assessment were conducted at the site. For analyzed parameters, soil concentrations were compared against Government of the Northwest Territories (GNWT) Environmental Guidelines for Site Remediation (Draft, 1994) and CCME Interim Canadian

Environmental Guidelines for Contaminated Sites (1991). Groundwater concentrations where compared against Guidelines for Canadian Drinking Water Quality (Health Canada, 1996) and CCME Interim Canadian Environmental Quality Criteria for Contaminated Sites (1991). Table 3 summarizes the findings and recommendations from subsurface investigation conducted at the APECs by AGRA.

Table 3: Findings and recommendations from subsurface investigation (AGRA, 1999)

APEC	Description	Investigation conducted	Investigation results		Other information	Recommendations
			Soil	Ground water		
1	Screening Plant/ Boneyard	No sampling conducted	-	-	Well damaged	Completion of a subsurface investigation
2	TC Shoreline Disposal Area	No sampling conducted	-	-	Debris identified along the shoreline behind DND Frontec facility.	Continue clean-up operations
3	Firefighting Training Area	Two grab soil samples collected; sampling of monitoring wells onsite and review of sampling conducted in 1998 by GNWT	HC[1] odours noted, soil not analysed	BTEX greater than GCDWQ and/or CCME guidelines	Tilling of surficial soils at the FTA was reportedly conducted 2 or 3 times over a period of 2 years before the AGRA investigation	Additional soil and groundwater monitoring to delineate the extent of hydrocarbon impacts.
4	Former F.H. Ross Tank Site	1 grab soil sample collected; and Sampling of monitoring well onsite	HC[1] staining and odours noted, soil not analysed	BTEX exceeding GCDWQ and/or CCME guidelines	-	Additional investigation to delineate the extent of hydrocarbon impacts.
5	Former AST Location North of building T-5	1 grab soil sample collected; and Sampling of monitoring well onsite and review of sampling conducted in 1998 by GNWT	HC[1] staining and odours noted, soil not analysed	BTEX exceeding GCDWQ and/or CCME guidelines	-	Additional investigation to delineate the extent of hydrocarbon impacts.
6	Former AST Location West of Building T-4	Not Investigated	-	-	-	-

A summary of the APECs and the potential contaminants of concern (PCOCs) are presented in section 5.

5.0 SUMMARY OF APECS AND PCOCS

Based on our review of historical information, FRANZ has prepared the following summary identifying relevant historical information for the 6 identified APECs. This information was used to prepare FRANZ's detailed sampling plan for our ESA. All of the APEC locations can be found on Figure 2.

5.1 APEC 1 – Historical Screening Plant / Boneyard

The Screening Plant / Boneyard is about 100m southwest of the Airport runway and was historically used for screening and stockpiling gravel and storing old discarded equipment. Aerial photographs did not identify screening plant/boneyard activities in APEC 1, however, a gap may exist in aerial photographs. FRANZ relied on previous sample locations identified by Dillon (1995) and AGRA (1999) to identify the location of APEC 1.

Based on our review, potential sources of contamination include petroleum hydrocarbons/ fuels, waste oil, metals, anti-freeze, Polychlorinated Biphenyls (PCBs), and pesticides. The following PCOCs were identified in soil and groundwater: Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), Petroleum Hydrocarbon (PHC) fractions F1-F4, Polycyclic Aromatic Hydrocarbons (PAH), Volatile Organic Compounds (VOCs), glycols, metals, PCBs and pesticides. Historical investigation at this APEC did not identify any contaminants of concerns (COCs).

5.2 APEC 2 – TC Shoreline Disposal Area

The shoreline disposal area is found on the south side of airport lands, along the shoreline of Cambridge Bay's west arm. It extends for approximately 2km, from 300 m southwest of the Fire Fighting Training Area to downgradient of the Department of National Defence (DND) Frontec facility. FRANZ relied on previous sample locations identified by Dillon (1995) and AGRA (1999) to identify the location of APEC 2.

Based on our review, potential sources of contamination include petroleum hydrocarbons / fuels, waste oil, metals, anti-freeze, PCBs and pesticides. The following PCOCs were identified in soil and groundwater: BTEX, PHC fraction F1-F4, PAH, VOCs, glycols, metals, PCBs and pesticides. Historical investigation at this APEC did not identify any COCs.

5.3 APEC 3 – Fire Training Area

The former fire training area (FTA) is southwest of the runway along the west part of the airport. The former FTA consisted of an aircraft mock-up area where fuel and potentially other combustible/flammable waste liquids were burned for fire training exercises. It was enclosed in a containment berm about 40 cm high and constructed of local till material. ASTs were also historically present on site. According to AGRA (1999), tilling of the FTA to aerate the soil was to be completed by Transport Canada between 1995 and 1996 after it was taken out of use.

Based on the use of the FTA and historical investigation findings, the following potential sources of contamination include fuels (e.g., avgas, jet fuel), spent solvents, oils, and fire-fighting retardants. The following PCOCs were identified in soil and groundwater: BTEX, PHCs fraction F1-F4, PAHs, VOCs, lead, PCBs and Perfluoro Octane Sulfonates (PFOS). Historical investigation at this APEC identified BTEX as COCs in groundwater. The extent of contamination has not been delineated.

5.4 APEC 4 – Former F.H. Ross Tank Site

F.H. Ross and Associates conduct airport maintenance and aircraft fuelling. They formerly operated 3 bulk fuel ASTs about 60m south of the ATB. The ASTs were decommissioned in 1992; however, no formal decommissioning procedures were followed when the ASTs were relocated about 30m to the southeast (Dillon, 1995). Information regarding the former infrastructure was not available; however, the replacement system consists of three 100,000L ASTs containing Avgas and Jet B fuel.

Based on this information, potential sources of contamination are fuels (i.e., avgas, jet fuel). The following PCOCs were identified in soil and groundwater: BTEX, PHCs fraction F1-F4, PAHs and metals. Historical investigation at this APEC identified BTEX as COCs in groundwater. The extent of contamination has not been delineated.

5.5 APEC 5 – Former AST Location North of Building T-5

A former diesel AST (2,200L) associated with a fuel dispensing facility was present north of building T-5 (Powerhouse / Field Electrical Centre). The fuel dispensing facility was utilized by airport maintenance personnel for vehicle fuelling. Agra (1999) indicated the AST was installed on a concrete pad.

Based on this information, the potential source of contamination include petroleum hydrocarbons/fuels and metals. The following PCOCs were identified in soil and groundwater: BTEX, PHCs fraction F1-F4, PAH, VOCs and metals. Historical investigation at this APEC identified BTEX as COCs in groundwater. The extent of contamination has not been delineated.

5.6 APEC 6 – Former AST Location West of Building T-4

APEC 6 consists of a former AST installed west of the existing maintenance garage and fire-hall compound (Building T-4). Both Dillon (1995) and Agra (1999) noted that floor drains in Building T-4 drain onto the ground surface below the building. No indicators of contamination were noted and subsurface quality has not been investigated.

Based on this information, the potential source of contamination include petroleum hydrocarbons/fuels and metals. The following PCOCs were identified in soil and groundwater: BTEX, Hydrocarbon Fractions F1-F4, PAH, VOC and Metals. Historical investigation at this APEC did not identify any COCs.

5.7 APEC and PCOCs Summary

The APECs and PCOCs for each area are presented in Table 4.

Table 4: Summary of APECs and PCOCs

APEC	DESCRIPTION	PCOCs
1	Historical Screening Plant / Boneyard	BTEX, F1-F4, PAH, VOC, Glycols, Metals, PCBs and Pesticides
2	TC Shoreline Disposal Area	BTEX, F1-F4, PAH, VOC, Metals, PCBs and Pesticides
3	Firefighter Training Area	BTEX, F1-F4, PAH, VOC, Lead, PCBs and PFOS.
4	Former F.H. Ross Tank Site	BTEX, F1-F4, PAH and Metals.
5	Former AST Location North of Building T-5	BTEX, F1-F4, PAH, VOC and Metals.
6	Former AST Location West of Building T-4	BTEX, F1-F4, PAH, VOC and Metals.

6.0 REGULATORY REVIEW AND ENVIRONMENTAL QUALITY CRITERIA

In Nunavut, environmental site assessments and site remediation projects are typically based on the use of federally developed generic guidelines. Risk assessment principles have been used extensively in developing federal generic clean-up criteria for contaminated sites. However, as the term "generic" implies, they are intended for broad applications and are typically over-protective to avoid underestimating potential risks associated with a wide range of site conditions and potential land uses.

The following sections provide information and rationale with regards to the guidelines and standards used to assess the analytical results from samples collected by FRANZ in 2009 at Cambridge Bay Airport.

6.1 Federal Guidelines

The Contaminated Sites Management Working Group for federal government departments has defined a *contaminated site* as a site at which substances occur in concentrations that either: 1) are above background levels and pose, or are likely to pose, an immediate or long-term hazard to human health or the environment; or 2) exceed concentrations specified in guidelines and/or regulations

The federal CCME guidelines were derived based on potential impacts to humans and ecological receptors and also take into account potential risks to humans associated with the consumption of groundwater on the site. The CCME have not established an equivalent set of non-potable thresholds for federal lands.

The CCME Canadian Environmental Quality Guidelines (1999) publication compiles all previously released soil, sediment and surface water criteria and guidelines into one publication. Updates have been issued for selected chemicals over the past several years. Guidelines for soil and surface water are numerical limits intended to maintain, improve or protect environmental quality and human health at contaminated sites and were derived using toxicological data. There are four separate sets of guidelines for soil quality and five sets of guidelines for water quality. The guidelines are separated into groups for different types of land and water use.

Soil

The soil analytical results were compared to the CCME Canadian Environmental Quality Guidelines, specifically the Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CSQG), and with the Canada-Wide Standards (CWS) for Petroleum Hydrocarbons (PHC) in soil. These are applied to most federal contaminated sites. The guidelines are numerical limits intended to maintain, improve or protect environmental quality and human health at contaminated sites and were derived using toxicological data and aesthetic considerations.

The standards and guidelines adopted for this evaluation are as follows:

- Canadian Environmental Quality Guidelines (CEQGs; CCME, 2007) for commercial and industrial land use; and
- Canada-Wide Standards for Petroleum Hydrocarbon (CWS) in soil (CCME, 2008a) – Tier 1 Levels for commercial land use.

Surface Water

Canadian water quality guidelines are surface water guidelines intended to provide protection of freshwater and marine life from anthropogenic stressors such as chemical inputs or changes to physical conditions.

Groundwater

CCME guidelines apply at the “point of the consumption” indicating that AW guidelines apply to surface water quality and not directly to groundwater. Several jurisdictions (e.g., BC MOE) apply a conservative 10x dilution factor for the discharge of groundwater to surface water resulting in ground water guidelines/standards that are 10x greater than surface water guidelines/standards. In the absence of groundwater CCME AW standards and dilution directives, Franz applied provincial guidance when reviewing applicability of AW guidelines (see Section 6.2).

6.2 Territorial/Provincial Guidelines

In the absence of federal guidelines to assess the quality of groundwater at the site, water analytical results were compared against British Columbia Contaminated Sites Regulation (BC CSR) Standards. Standards from BC were selected over other nearby provinces as BC regulations include groundwater discharges to both freshwater and marine receptors. The legislation governing contaminated sites in British Columbia consists of the *Environmental Management Act (EMA, 2004*) and the *Contaminated Sites Regulation* (BC CSR, 1997). The Environmental Management Act creates a comprehensive framework for the assessment and remediation of contaminated sites. In British Columbia, a site is considered contaminated when the concentration of any substance found on that site is greater than the numerical standards defined in the BC CSR.

Under the BC CSR, water standards for groundwater are provided in Schedule 6 of the CSR and Protocol 7 which regulates petroleum hydrocarbons covered in both the BC Hazardous Waste Regulation, 2006 (HWR) and CSR. Depending on the use of the water at a contaminated site or site under investigation, the BC CSR designated four water-use categories including aquatic life, irrigation, livestock, and drinking water use.

The standards that were applied for this Site are the BC CSR Schedule 6 AW (aquatic life). For substances included in Schedule 6 of the BC CSR, one generic numerical water standard is provided for each regulated substance for each water use category. Standards for some substances are dependent on water pH or hardness.

Based on direction of groundwater flow and proximity to the water bodies around the Site, standards developed for protection of marine aquatic life were applied at all APECs while standards developed for protection of freshwater aquatic life were also applied at APECs 4, 5 and 6.

6.3 Other Guidelines

In absence of guidelines for perfluorooctane sulfonate (PFOS) in the CCME documents, PFOS analytical results were compared against the Minnesota Pollution Control Agency (MPCA) standards.

6.4 Designated Substances

Criteria, rationale and regulatory jurisdictions for each component of the designated substances property survey are presented in Table 5.

Table 5: Summary of Criteria for the Selection of Environmental Quality Guidelines

Material Type	Classifications	Evaluation Criteria
PCBs in Soils	PCBs in soils are regulated under the Canadian Environmental Protection Act (CEPA) and transported according to TDGA and CEPA.	PCB content >50 ug/g is considered a hazardous waste. Materials with PCBs above the CCME soil criteria (e.g., 1.3 ug/g) but below 50 ug/g is not hazardous waste
Liquids/Chemicals	Waste solvents and liquids are a contaminant under the EPA of Nunavut and must be managed as a hazardous waste.	Absence/presence of liquids/chemicals in containers.
Batteries	Waste batteries are a contaminant under the EPA of Nunavut and must be managed as a hazardous waste	Absence/presence of waste batteries.

6.5 Vegetation Evaluation Guidelines

In the absence of federal guidelines to assess the quality of vegetation at the site, the Ontario Ministry of the Environment (MOE) Upper Limit of Normal (UNL) guidelines were applied. The Ontario MOE ULN contaminant guidelines represent the expected maximum concentrations of contaminants in surface soil (non-agricultural), foliage (deciduous and current year coniferous trees and shrubs) grass, moss bags and/or snow from areas of Ontario not subject to the influence of point sources of emissions.

7.0 FIELD INVESTIGATION

7.1 Field Reconnaissance

Detailed site visits of all six APECs were conducted by FRANZ personnel on August 26, 2009 to confirm historical sample locations and potential and observed contaminant source areas. Photos of each APEC can be found in Appendix D. Table 6 summarizes the observations compiled during the site visit:

Table 6: Summary of Field Observations

APEC	Description	Observations
1	Screening Plant/ Boneyard	• No debris or material were stored onsite; site vacant; • No surficial staining observed; • Vegetation present, no sign of stress; and area was saturated.
2	TC Shoreline Disposal Area	• Small amount of debris such as wood and metal drums observed along the east end of the shoreline; • Abandoned excavation pit along northwest end of APEC; • No vegetation along the shoreline; • Vegetation present on upgradient slope of excavation pit at the northwest end of the APEC, no sign of stress; • No surficial staining observed; and • No evidence of sheen, refuse or debris was observed in the water.
3	Firefighting Training Area	• Site vacant; • Very little vegetation is present, no sign of stress; • No surficial staining observed; and • Hydrocarbon sheen observed in ponded water within the APEC.
4	Former F.H. Ross Tank Site	• Only structures present onsite are aboveground pipes linking the ASTs present east of the APEC to the dispensing cabinets located west of the APEC; • Gravel surface; ; • Gravel surface; and • No surficial staining observed.
5	Former AST Location North of building T-5	• Empty drums stored; • Gravel surface • No vegetation; and • No surficial staining observed.
6	Former AST Location West of Building T-4	• Building T-4 used as a maintenance garage; • Gravel surface; no surficial staining observed • No vegetation; and • No surficial staining observed.

7.2 Preparation of a Detailed Sampling Plan

FRANZ reviewed historical information and knowledge collected during the site visit to prepare a detailed sampling plan. The sampling plan was developed to perform a detailed assessment of the site with respect to soil, groundwater, and vegetation quality. It was based on discussions with PWGSC/Transport Canada, a review of the Terms of Reference (ToR) from the Request for Proposal (RF) dated June 2009 and a review of the available historical reports. The sampling plan described our proposed sampling methods and types of measurements/analyses to be conducted during the Phase II ESA including:

- Proposed sampling locations and quantities;
- Proposed sampling or measurement methods;
- Parameters being sampled;
- Description of objectives with rationale;
- Proposed QA/QC methods;
- Proposed background sampling protocols; and
- Proposed health and safety plan.

During the field activities, areas of environmental concern were assessed in accordance with the proposed scope of work. Following the initial site visit, sampling locations were modified as required to target the most likely impacted areas and/or to attempt coarse grid delineation of impacts.

7.3 Health and Safety Procedures

FRANZ field programs are always subject to a site-specific Health and Safety Plan (HSP). We use a Corporate Health and Safety Plan as a general guide in developing the site-specific plan to which all team members and subcontractors must adhere. Protection of the public and personnel from exposure to any contaminated materials at the site was priority during the field program.

Prior to conducting any of the onsite work, a site-specific health and safety plan was developed, distributed and discussed with all field personnel (see Appendix E). As a minimum, full personal protective equipment (e.g., hard hats, safety glasses, reflective vests and Nitrile gloves) was

worn at all times during field activities. Tyvek overalls and respirators were available to all field personnel.

7.4 Subsurface Sampling Methodology

7.4.1 Test Pit Excavations and Soil Sampling

Test-pitting was considered the appropriate method for conducting observations of soil conditions and collecting soil samples in the areas of potential environmental concern (APECs). Between August 29, 2009 and August 30, 2009, a total of 37 test pits were excavated by FRANZ personnel up to a maximum depth of 2.2 m. At least one soil sample from each test pit was collected and analyzed for PCOCs. Test pits were completed with a backhoe to the maximum achievable depth, with the exception of 2-TP-5 to -10, which were completed with a hand trowel.

At each test pit location (Figures 3 to 10), composite soil samples were collected using a decontaminated trowel and nitrile gloves. Depending on the depth of the test pit, the nature of the stratigraphy, and evidence of contamination, composite samples generally were collected over a range of 0.5 - 1.0m. Prior to sampling, soil descriptions including approximate grain size, colour, moisture content, stratigraphy and any evidence of contamination were recorded. Following the completion of the test pit field log (Appendix C) and prior to backfilling the pit to grade, soil samples were collected and stored in sealable polyethylene bags (for soil vapour headspace analysis) and dedicated glass sample containers (for laboratory analysis).

Two background soil samples for metals were collected in areas that appeared to be free of influence by human activities or land filling. Selected laboratory analyses for each sample are presented in Appendix G.

Following sample collection, the jarred soils were refrigerated and/or stored on ice in laboratory-supplied coolers from the day of collection until delivery to the Maxxam Analytics laboratory (for soil) in Vancouver, B.C.

7.4.2 Field Vapour Screening

Vapour screening is a frequently used method for detecting and measuring the quantity of volatile organic compounds present in soil. When taken continuously from the ground surface to the end of a test pit, vapour readings can provide an indication of the relative level of

contamination and whether it derived from a localized source or migrated from a more distant one. As a result, field screening is a useful tool to facilitate selection of samples to be submitted for laboratory analysis. All soil samples collected by FRANZ were screened for soil vapour concentrations.

During the investigation, field vapour screening was completed in-situ by partially filling and sealing standard volumes of soil into dedicated polyethylene bags. Samples were stored at room temperature to equilibrate. Gas samples were retrieved by inserting a small tube into the sample bag and analyzed with an RKI Eagle organic vapour meter (calibrated to hexane), and the concentration of combustible gases present (other than methane) by volume (ppm) was measured. The results of the soil vapour headspace analyses are included in the test pit logs (Appendix C)

7.4.3 Groundwater Sampling

A total of fifteen groundwater samples were collected from the six APECs in 2009. No downgradient or background groundwater samples were collected.

The groundwater samples were collected from the monitoring wells in each APEC. Each well was purged and developed using a dedicated disposable PVC bailer (3X the volume), and allowed to sit for approximately 24 hours before sampling occurred. The monitoring well locations used during the field program corresponded with many of the test pit locations. Specific sample locations for each site are indicated on Figures 3 to 10.

The samples were collected from the monitoring wells into laboratory supplied sample containers. Field parameters including pH, temperature and conductivity were measured at each monitoring well (done within 24 hours of well installation). Each sample was labelled and refrigerated and/or kept on ice until they were delivered to the project laboratory. Water samples were delivered via Canadian North Cargo to the Maxxam Analytics laboratory in Yellowknife, NWT. Results of the field parameters are presented in Appendix H.

7.5 Surface Water Sampling

One surface water sample was collected from the shore of the pond area at the west edge of APEC 4, in order to investigate for potential impact from APEC 4 to surface water at the site (Figure 9).

The sample was collected from a depth of 0-15 cm below the water surface with dedicated disposable PVC bailers, and placed into laboratory supplied sample containers. Field parameters including pH, temperature and conductivity were measured at the time of sampling. The sample was labelled and refrigerated and/or kept on ice until it was delivered to the project laboratory in Yellowknife, NWT via Canadian North Cargo. Results of the field parameters are discussed in Section 9.

7.6 Vegetation Sampling

The ESA included collecting seven aboveground foliage vegetation samples at three APECs and one background location. Samples were not taken from the same species due to limited vegetation. Samples were refrigerated and/or kept on ice until they were delivered to the project laboratory in Yellowknife, NWT. Specific sample locations are indicated on Figures 3 to 10.

7.7 Selection Criteria for Soil and Groundwater Chemical Analyses

Soil and groundwater were analyzed based upon three distinct rationales:

1) To delineate, confirm or refute potential soil impacts related to historical or current land use;
2) To provide a better understanding of contaminant concentrations in the soil and groundwater; and
3) To generate a thorough understanding of environmental receptors, as well as fate and transport of the potential contaminants of concern (PCOCs).

Soil and groundwater sample selection for contaminant analyses was based on a review of previous soil analyses completed on site, as well as visual site inspection of potential source areas and natural environmental pathways and receptors.

7.8 Site Survey

A complete site survey consisting of georeferencing site features and sample locations with the use of a Differential Global Positioning System (DGPS) unit horizontally accurate to <30 cm was conducted. The survey data was placed on an air photo (Google Earth, 2009) and ortho-rectified to correspond with data points collected during the survey.

8.0 QA/QC

The purpose of the quality assurance/quality control (QA/QC) program was to confirm that field sampling methods and laboratory analyses were reliable. In implementing the QA/QC program, FRANZ verified that the quality of the reported results was suitable to support the environmental impact (and human health/ecological risk) conclusion drawn from the data.

The 2009 field program included the following QA/QC protocol elements:

- Decontamination (TSP wash and distilled water rinse) of sampling equipment/ instrumentation between all sample locations;
- New/disposable chemical-resistant nitrile gloves for each sampling event;
- Sampling in accordance with documented and generally accepted industry practices;
- Proper documentation of all aspects of the sampling program, with particular detail to the introduction of potential bias;
- Elimination of sample headspace for all volatile parameters (soils and water);
- Collection of one blind analytical duplicate for approximately every 10 samples of environmental media or per sample event;
- Calculation of the relative percent difference between a sample and its duplicate for comparison to acceptable variance guidelines; and
- Calibration of field instruments.

8.1 Data Reduction and Validation

Investigation results data reduction involved summary tabulation of analytical results and field observation transcriptions. Following data reduction, data validation was performed to ensure raw data was not altered and an audit trail was applied for managing data. Data validation was also performed to verify the quantitative and qualitative reliability of the information. A comparative review of sample collection records, chain-of-custody records, holding times, dilution factors, estimated quantitation limits (EQLs), and laboratory and field QC sample records were evaluated against original laboratory reports and found to be within control limits (Appendix G).

8.2 Data Validation of QA/QC Samples

FRANZ quantitatively assessed the analytical quality of the data through calculating the relative percent difference (RPD) between each sample and its corresponding duplicate using the following equation:

$$RPD = | X_1 – X_2 | / X_{avg} \text{ X } 100$$

Where X_1 and X_2 are the concentrations and X_{avg} is the mean of these two values, and RPD is the percent difference between each sample and its corresponding duplicate.

The target levels of precision for this project are:

1) Organics in soil: 50% for PAH; 40% for BTEX/VPH and EPH and glycols
2) Metals in soil: 30%
3) Organics in water: 30% for most volatile and other typical organics
4) Metals in water: 20%

These levels are specified in the Recommended Data Quality Objectives (DQOs) for Laboratory Duplicates which are derived from Measurement Uncertainty (MU) estimates obtained from four major BC analytical laboratories. MU values, according to the Technical Sub-committee of the BC Environmental Laboratory Quality Assurance Advisory Committee (BCELQAAC), which presented the recommendations, are lab estimates of the 95% confidence interval around chemical measurement results, as determined according to CAEAL and internationally recognized guidelines.

The recommendations for soil and groundwater were presented by the Technical Sub-committee of the BCELQAAC, in a letter to the Environmental Management Branch, MOE, dated October 24, 2005, as a revision to the Technical Guidance document, and are generally accepted throughout the industry.

- Relative percent difference was not calculated if either the sample or its duplicate were less than method detection limits, or if either the sample or its duplicate were less than five times the reported detection limits, for soil and groundwater.

- Both components of the sample/duplicate pair were assessed against Standards/ Guidelines.

The following discussion presents the results of the Relative Percent Difference (RPD) calculations. Duplicate analysis results can be found in Appendix G.

RPD result for sample/duplicate pair 2-09TP-5/ is greater than the target level of precision for Bismuth (33.3%). We attribute the marginally elevated RPD to sample heterogeneity, a function of co-located replicate sampling. Concentrations for all other sample/duplicate pair were all within the acceptable precision. Therefore, the sample results are considered valid and were kept as part of the assessment.

RPD result for sample/duplicate pair 6-09-MW1/FR-1 is greater than the target level of precision for Manganese (88.89%). RPD results for sample/duplicate pair 1-09-6M/FR3 is greater than the target level of precision for Calcium (25.00%), Iron (36.84%), Manganese (28.57%), Potassium (42.86%), Sodium (55.74%), Srontium (37.84%) and Uranium (73.68%). compliant levels for these metals are noted in both sample and duplicate, therefore the RPD value is not material to the classification of this sample against the Standard. The lab made a note with regard to the metals analysis, that detection limits for certain dissolved metals were increased due to high concentrations of other dissolved metals in the samples. This may account for the apparent dissymmetry between sample and duplicate results.

All other parameters for all other samples, including metals, PAHs, PHCs and VOCs remained within the acceptable precision and therefore the concentrations do not change the outcome of the assessment and have been kept as part of the assessment. All other parameters had acceptable RPD precision.

Duplicated analysis was completed on the vegetation samples for metals. All of the concentrations were all within the acceptable precision. Therefore, the sample results are considered valid and were kept as part of the assessment.

RPD calculation results indicate that we can rely on this data set for our assessment.

9.0 INVESTIGATION RESULTS AND DISCUSSION

Samples from soil, water and vegetation were collected at six identified APECs and analyzed for selected PCOCs. The analytical results can be found in Figures 3 to 10 and in Appendix G. Test pit logs are presented in Appendix C.

Background samples were collected for soil and vegetation in undisturbed areas 2-3 km west of the airport terminal building for comparison purposes (see Figures 3 to 10).

9.1 Background Metal Sampling

Two soil samples were collected in order to investigate for background metal levels in the area. Chemical analytical results (Figures 3 to 10, Appendix G) did not exceed the CCME guidelines. pH for background samples was elevated (between 8.17 and 8.34).

One vegetation sample was collected in order to investigate for background metal levels in the area. Chemical analytical results (Figures 3 to 10, Appendix G) did not exceed the Ontario MOE UNL guidelines.

9.2 APEC 1 –Screening Plant / Boneyard

Six test pits were conducted at APEC 1, and they were all installed as monitoring wells. At the test pit locations, the observed soil profile was described as sand and silt from 0.0 m to a maximum depth of 1.7 m bgs (Appendix C). Four test pits were conducted until permafrost was reached at depths of 1.2 to 2.5 m bgs.

Vegetation samples were collected at two locations within APEC 1 (1-09-VG1 and 1-09-VG2).

Soil

Analytical results (Figure 3, Appendix G) indicate all soil samples were less than the CCME guidelines; however, pH levels at four test pit locations were just above the CCME guideline. pH levels at both background soil sampling locations also had elevated pH levels, therefore, it appears to be naturally occurring and not from anthropogenic activities.

Groundwater

All analytical results (Figure 4, Appendix G) indicate that concentrations for all PCOCs were less than the BC CSR AW (Marine Life) standards.

Vegetation

Chemical analysis results (Figure 3, Appendix G) were less than the Ontario MOE "ULN Guidelines, with the exception of molybdenum (2.6 ug/g) at 1-VG-2. A molybdenum (Mo) concentration greater than the guideline could be a natural occurrence, and not from anthropogenic activities. As regional geology indicates that there is a potential for base metals deposit on Victoria Island which could impact the regional background metal levels.

Summary

No contaminants of concern (COCs) were identified in soil and groundwater at APEC 1. Molybdenum in vegetation is present in concentrations greater than the Ontario MOE ULN guideline. It is possible that elevated Mo concentrations in vegetation are a natural occurrence.

9.3 APEC 2 – TC Shoreline Disposal Area

A small amount of debris, including wood and metals drums were observed along the east end of the shoreline during the investigation conducted by FRANZ in 2009. No evidence of sheen, refuse or debris was observed in the water. Four test pits were conducted in the northwest end of the APEC, one of them being installed as a monitoring well. Soil profile from 0.0 m to 0.9 m bgs was described as sand with some silt (Appendix C). Six test pits were conducted in the southeast end of the APEC (along the shoreline), and the soil profile from 0.0 m to 0.6 m bgs was described as shale and sand with some debris in the area. Debris observed included empty rusted metal drum lids, plastic drums and wood debris. Vegetation samples were collected at two locations within APEC 2 (2-09-VG1 and 2-09-VG2).

Soil

Chemical analytical results (Figure 5 and Appendix G) indicate copper (Cu) and arsenic (As) in concentrations greater than the CCME guidelines at two test pit locations (2-09-TP5 and 2-09-TP6) along the shoreline between 0-0.6m bgs. Cu and As concentrations greater than the guidelines could be a natural occurrence, and not from anthropogenic activities, as regional geology indicates that there is a potential for base metals deposit on Victoria Island which could cause elevated regional background metal levels.

Concentrations for all other parameters were less than the CCME guidelines.

Groundwater

Analytical results (Figure 5 and Appendix G) indicate concentrations for all PCOCs were less than the BC CSR AW (Marine Life) standard.

Vegetation

Chemical analytical results (Figure 5, Appendix G) indicate all vegetation samples submitted for metals analysis were less than the Ontario MOE ULN guidelines.

Summary

Copper (Cu) and arsenic (As) were identified as COCs in soil at APEC 2. The depth of metal-impacted soil is 0-0.6m bgs. Cu and As contamination may be from anthropogenic sources from historical metal debris discarded at the site as although naturally occurring sources are not uncommon in the region, noted concentrations are elevated when compared to analyzed background concentrations. This APEC was retained as an AEC and the contamination is expected to be localized (about 50m^2- see figure 11). No COCs were identified in groundwater at APEC 2.

9.4 APEC 3 – Fire Training Area

At the time of the investigation conducted by FRANZ in 2009, empty drums were observed to be stored in the area. No surficial staining was observed. The 2,200 L diesel AST was not observed during the field work in 2009. Six test pits were excavated and three were installed as monitoring wells. The soil profile observed from 0.0 m to 2.1 m bgs was sand and gravel from 0 to 0.5m, underlain by sand to silty sand with some gravel (Appendix C). Hydrocarbon odour and staining were encountered in some test pits, and hydrocarbon sheen was observed in ponded water within the APEC during the site visit. Permafrost was encountered in test pit 3-09-5M at a depth of 2.1 m.

Soil

Chemical analytical results (Figure 6, Appendix G) indicate Benzene, Ethylbenzene and/or PHC fraction F2 exceed the CCME guidelines at 4 test pits (3-09-4M-1, 3-094M, 3-09-5M and 3-09-6M) between 0-2m bgs. Concentrations for all other PCOCs were less than the CCME guidelines.

Groundwater

Chemical analytical results (Figure 7, Appendix G) identified Benzene and lead (Pb) exceeding the BC CSR AW (Marine Life) standard in one (3-09-4M) monitoring well. Naphthalene is exceeding the BC CSR AW (Marine Life) standard in two (3-09-4M and 3-09-5M) monitoring wells. Elevated PHC F1 (3.5 mg/L) and F2 (3.8 mg/L) detected at the APEC is indicative of petroleum impact; however, there were no referenced standards/guidelines. Concentrations for all other parameters were less than the BC CSR AW (Marine Life) standards.

Vegetation

Chemical analytical results (Figure 6, Appendix G) were less than the Ontario MOE "ULN Guidelines.

Summary

Benzene, Ethylbenzene and F2 were identified as COCs in soil. The depth of hydrocarbon-impacted soil is from 0 to 2 m bgs. The estimated volume of hydrocarbon contaminated soil is 15,000 m^3; however, the extent of contamination has not been fully delineated to the south and east (Figure 12).

Pb, Benzene and Naphthalene were identified as COCs in groundwater. The estimated area of Pb and Benzene-impacted groundwater is about 1,600 m^2 while the estimated area of Naphthalene-impacted groundwater area is about 2,500m^2. Contaminated groundwater was only identified in the soil impacted zone and appears to be attenuating downgradient (south) as far as the leading edge of the soil contamination. The area of confirmed contamination has been identified as AEC 3.

The approximate extents of contamination are presented in Figure 12.

9.5 APEC 4 – Former F.H. Ross Tank Site

Eight test pits were excavated at APEC 4 and two were installed as monitoring wells. The soil profile observed from 0.0 m to 2.0 m was a silty sand to sand and gravel. Petroleum hydrocarbon-like odours and staining were observed in some test pits. Permafrost was encountered at depths ranging between 1.3 and 1.6 m across the site (Appendix C). One surface water sample was also collected in a ponded area adjacent to the south of the APEC.

Soil

Chemical analytical results (Figure 8, Appendix G) indicate Pb concentrations exceeded the CCME guideline at one test pit (4A-09-5) between 1.3-1.5m bgs. Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) and/or PHC fractions F1-F4 concentrations were greater than the CCME guidelines at four test pits (4A-09-3M, 4A-09-4, 4A-09-5 and 4A-09-8) between 0-2m bgs. Concentrations for all other PCOCs were less than CCME guidelines.

Groundwater

Chemical analytical results (Figure 9, Appendix G) indicate Naphthalene and Toluene (monitoring well 4A-09-3M) and Zn (monitoring well 4A-09-2M) exceeded the BC CSR AW (Marine Life) standard. Elevated PHC F1 (1.6 mg/L) and F2 (1.4 mg/L) detected at the APEC is indicative of petroleum impact; however, there were no referenced standards/guidelines. Concentrations for all other PCOCs were less than the BC CSR AW (Marine and Freshwater Life) standards.

Surface Water

Chemical analytical results (Figure 9, Appendix G) indicate all PCOCs met the applicable CCME FWAL guidelines. The aluminum (Al) guidelines (CCME, YEAR) are pH dependant; however, FRANZ was unable to obtain field pH measurements. A pH of >7 was estimated for surface water based on field pH measurements for APEC groundwater, soil pH levels, and regional geology (Harrison, 2007).

Summary

Pb was identified as a COC in soil at APEC 4. The depth of Pb impacted soil is from 1.3 to 1.5 m bgs. Soil Pb concentrations were limited to one location despite the presence of considerably more PHC contamination and therefore, Pb contamination does not appear to be

associated with historical use of avgas and therefore is probably a localized occurrence. Although not fully delineated to the east and west, the volume of Pb contaminated soil on site is estimated to be 10 m^3.

Benzene, Ethylbenzene, Toluene, Xylenes and PHC fractions F1-F4 were identified as COCs in soil at APEC 4. The depth of PHC contaminated soil is from 0 to 2 m bgs. The estimated volume of contamination is 3,500 m^3; however, the extent of contamination has not been fully delineated (Figure 13).

Naphthalene was identified as a COC in groundwater at APEC 4. The estimated area covered by Naphthalene-impacted groundwater is estimated to be 300 m^2; however, the leading edge of the plume has not been fully delineated.

Zinc was identified as a COC in groundwater at APEC 4. The area covered by Zn-impacted groundwater is estimated to be about 300 m^2. Anthropogenic sources of Zn contamination were not identified; however, metals may be mobilizing through microbial oxidation/reduction associated with petroleum hydrocarbon degradation.

The area of soil and groundwater contaminated by petroleum, naphthalene, and zinc has been identified as AEC 4.

9.6 APEC 5 – Former AST Location North of Building T-5

Four test pits were conducted at APEC 5 and one was installed as a monitoring well. The soil profile observed from 0.0 m to 2.2 m was described as sandy gravel with organic layers (Appendix C). Petroleum hydrocarbons like odours were noted at 5-09-TP4.

Soil

Chemical analytical results (Figure 10, Appendix G) indicate sample concentrations for all PCOCs were less than the CCME guidelines.

Groundwater

Chemical analytical results (Figure 10, Appendix G) indicate all PCOCs in groundwater samples were less than the BC CSR AW (Marine and Freshwater Life) standards.

Summary

No COCs were identified in soil and groundwater at APEC 5.

9.7 APEC 6 – Former AST Location West of Building T-4

One test pit was conducted at APEC 6 and installed as a monitoring well. The soil profile observed from 0.0 m to 1.5 m was described as silt, sand and gravel with organics between 0.1 m and 0.2 m (Appendix C).

Soil

Chemical analytical results (Figure 10, Appendix G) indicate sample concentrations for all PCOCs were less than the CCME guidelines.

Groundwater

Chemical analytical results (Figure 10, Appendix G) indicate that concentrations for all PCOCs were less than the BC CSR AW (Marine and Freshwater Life) standards.

Summary

No COCs were identified in soil and groundwater at APEC 6.

10.0 AREAS OF ENVIRONMENTAL CONCERN

Table 7 lists the AECs present at the Cambridge Bay airport, as well as descriptions of the contaminated media.

Table 7: AECs at the Cambridge Bay Airport

AEC	Description	Contaminated Media	COC	Estimated Volume (m^3)	Area (m^2)
2	Cu and As exceedences in soil at the TC Shoreline Area	Soil	Cu and As	20	-
3	Firefighter Training Area	Soil	Benzene, Ethylbenzne and F2 fraction	15,000	-
		Groundwater	Benzene, Naphthalene and Pb	-	2,500
4	Former F.H. Ross Tank Site- HC in soil and groundwater	Soil	BTEX, F1-F4 fractions and Pb	3,500 (includes 10m^3 Pb)	-
		Groundwater	Naphthalene, Toluene, and Zinc	-	300

11.0 NCSCS SCORING

The NCSCS is a tool to aid in the evaluation of contaminated sites. The CCME National Classification System for Contaminated Sites (NCSCS) was revised in 2008 to supersede the 1992 NCS system and also the Federal Contaminated Sites Action Plan (FCSAP) scoring system (2005 version, developed by Franz Environmental Inc.). The revised system retains the general classification structure of Class 1, 2, 3, "I" or "N" based on the site's current or potential adverse impact on human health and/or the environment.

A score was generated for each APEC.

- The site score for AEC 2 (now AEC 2) is 55.6 which classifies the TC Shoreline Disposal Area as a Class 2 site (Medium Priority for Action) (See Appendix I).
- The site score for AEC 3 (now AEC 3) is 71.7 which classifies the FTA as a Class 1 site (High Priority for Action) (See Appendix I). Also, pre-screening also identifies the Site as a Class 1 Site.
- The site score for AEC 4 (now AEC 4) is 76.4 which classifies the Former F.H. Ross Tank Site as a Class 1 site (High Priority for Action) (See Appendix I).

12.0 CONCEPTUAL REMEDIAL ACTION PLAN

This conceptual remedial action plan outlines the options to mitigate potential contaminant exposure to human and ecological receptors. A human health risk assessment (HHRA) and ecological risk assessment (ERA) are being completed as part of this contract (provided as a separate report). The HHRA/ERA will identify the potential risks to human health and environmental receptors based on the appropriate pathways, concentrations and chemicals of concern. The extent of impacts, impacted media and final contaminant remediation approaches may be guided by the outcome of the HHRA/ERA. As such, the HHRA/ERA coupled with this conceptual plan could be used as the basis for a more detailed remedial management plan.

12.1 Contaminant Impacts

Elevated metals, PHC, BTEX, and PAHs exist on Site and it is our opinion that the soil, groundwater, and surface water chemistry reflect the environmental impacts associated with fire training, fuel storage/use, and land-filling activities on site. A summary of the contaminant impacts is provided in the table below:

AEC	Description	COC	Impacted Media
2	TC Shoreline Area	Copper, and arsenic	Soil
3	Fire-fighter Training Area	Benzene, Ethylbenzene, F2 fraction, naphthalene and lead	Soil and groundwater
4	Former F.H. Ross Tank Site	BTEX, F1-F4 fractions, naphthalene, toluene lead, and zinc	Soil and Groundwater

12.2 Remedial Options Reviewed

FRANZ conducted a detailed options analysis (Appendix J) to assess remediation options for Site remediation. The assessment focussed on 6 technologies that have been employed for Site COCs including:

- Excavation and onsite biological *ex-situ* treatment;
- Risk assessment;
- Excavation and offsite disposal;
- *In-situ* treatment: Multi phase extraction;
- In-situ chemical oxidation; and
- Monitored natural attenuation.

12.3 Remedial Options Ranking

FRANZ ranked these remedial options in accordance with technological, regulatory, and Site specific factors. The specific criteria to evaluate these options were:

- Long term effectiveness;
- Applicability
- Limitations;
- Overall protection of human health and the environment;
- Regulatory acceptance;
- Timeframe; and
- Cost effectiveness.

A score of 1 to 5 was applied to each of the criteria with the highest score being awarded to the most preferred outcome. Total scores were summed and options ranked according to score; the higher the score rendered the option more preferred. Total rankings ranged from a score of 12 to 28 with protection of human health and the environment, and regulatory acceptance providing the largest range in scores amongst the approaches (Appendix J).

12.4 Preferred Remedial Options

FRANZ selected the three top ranked options as the "preferred" options that warranted further discussion. Only the top three options were selected as viable approaches as there was significant separation in scores between the top three (scores were 28, 27, and 22 out of a possible 35) and bottom three (scores were 17, 16, and 12 out of a possible 35) remedial options. The three top ranked remedial options include.

- **Option 1**: Excavation and onsite biological *ex-situ* remediation;
- **Option 2**: Risk assessment; and
- **Option 3**: Excavation and offsite disposal.

12.4.1 Option 1 – Excavation and Onsite biological *Ex-situ* Remediation

In this option, PHC contaminated soil and groundwater from AECs 3, and 4 would be removed, consolidated and treated in an engineered land treatment facility (LTF). The LTF would be constructed at a suitable location, as close as possible to AECs 3 and 4, to minimize contaminated material handling and transport. Excavation and placement in the LTF would be conducted at a rate of about 1500m^3 annually with a treatment time of about 2 years.

Amendments (e.g., nutrients, water) would be added soils aerated as needed to accelerate the treatment process. Treated soils can be re-used as backfill material.

The remaining 2 options are considered reasonable approaches to remediate the metals contaminated soils ($30m^3$). This is not expected to add significantly to the cost as metals contamination appears to be readily accessible, limited, and localized.

12.4.2 Option 2 – Risk Assessment

This option includes data review and assessment to prepare a conceptual site model to identify contaminant hazards, exposure pathways, and receptors. A data-gap analysis is conducted and additional investigation may/not be required to delineate contamination. Data is modeled to assess Site specific contaminant risks. If unacceptable risks to human health or ecological receptors are identified, mitigative actions (e.g., hot-spot removal) may be required; however, complete source removal is often unlikely.

A screening level risk assessment is currently being completed to determine the potential risks to human and ecological receptors. The outcome of the screening level risk assessment will be used to guide the long-term strategies for the Site.

12.4.3 Option 3 – Excavation and Offsite Disposal

This option involves excavation and off-site disposal/treatment of contaminated soils/groundwater from AECs 2, 3, and 4. Contaminated material would be consolidated and transported offsite via barge/ship to a licensed treatment facility. Significant amounts of backfill would be required or approval from the Airport authority to re-grade some of the excavated areas would be required.

12.5 Summary of Mitigation Costs

Based on the above discussion, FRANZ prepared a conceptual remedial plan with estimated associated costs (Appendix K). The approach is based on techniques outlined in Option 1 through 3 and spans a period of approximately 9 years (including monitoring). The indicative cost estimate (total of about $8.2 million); however, it is our understanding that more detailed cost estimates would be completed as part of a future Remediation/Risk Management Plan, as the relevant strategies and options are carried forward.

13.0 CONCLUSIONS AND RECOMMENDATIONS

FRANZ was retained by Public Works and Government Services Canada (PWGSC) and Transport Canada (TC), Prairie & Northern Region and Environmental affairs Division to complete a Phase II/III Environmental Site Assessment (ESA) at the Cambridge Bay Airport, Cambridge Bay, Nunavut.

Review of historical documents identified the following Areas of Potential Environmental Concern (APECs) and Potential Contaminants of Concern (PCOCs) summarized in Table 8.

Table 8: APECs at the Cambridge Bay Airport

APEC	DESCRIPTION	PCOCs
1	Historical Screening Plant / Boneyard	BTEX, F1-F4, PAH, VOC, Glycols, Metals, PCBs and Pesticides
2	TC Shoreline Disposal Area	BTEX, F1-F4, PAH, VOC, Metals, PCBs and Pesticides
3	Firefighter Training Area	BTEX, F1-F4, PAH, VOC, Lead, PCBs and PFOS.
4	Former F.H. Ross Tank Site	BTEX, F1-F4, PAH and Metals.
5	Former AST Location North of Building T-5	BTEX, F1-F4, PAH, VOC and Metals.
6	Former AST Location West of Building T-4	BTEX, F1-F4, PAH, VOC and Metals.

The intrusive site investigation conducted by FRANZ in 2009 included a total of thirty seven (37) test pits, fifteen (15) groundwater samples collected from monitoring wells installed, one (1) surface water sample and seven (7) aboveground foliage vegetation samples within the 6 APECs. The ESA identified the following three Areas of Environmental Concern (AECs) as presented in Table 9.

Table 9: AEC Findings and Recommendations at the Cambridge Bay Airport

AEC	Description	Contaminated Media	COC	Estimated Volume (m^3)	NCS	Recommendation
2	Cu and As exceedences in soil along the Shoreline	Soil	Cu and As	20	56 Med Priority	- Additional investigation. Remediate (excavation and offsite disposal or risk assessment)
3	Fire-fighter Training Area	Soil	Benzene, Ethylbenzene and F2 fraction	15,000	72 High Priority	-Delineate PHC contaminated soils. -Excavate and treat in an onsite LTF.
		Groundwater	Benzene, Naphthalene and Pb	-		- Excavate with PHC contaminated soils
4	Former F.H. Ross Tank Site	Soil	BTEX, F1-F4 fractions and Pb	3,500 (includes $10m^3$ for Pb)	76 High Priority	-Delineate extent of PHC contamination. - Excavate and treat PHC contaminated soils in LTF. - Segregate Pb contaminated soils and disposed offsite or manage (risk assessment) onsite.
		Groundwater	Naphthalene, Toluene, and Zn	-		-Naphthalene and Toluene excavated and treated in LTF -Resample and delineate PHC and Zn contamination.

Relevant findings and conclusions identified during the ESA with respect to identified AECs includes:

- the estimated volume metals and PHC contaminated soil identified at the Cambridge Bay Airport is about $30m^3$ and $18,500m^3$ respectively. The extent of petroleum contamination has not been fully delineated in both AEC 3 and 4;
- some uncertainty exists with respect to the presence and extent of metals contaminated soil at AEC 2, and 4. Some of these elements (e.g., As) may be naturally occurring in the area; however, site concentrations exceed other site/background concentrations

suggesting contamination is from anthropogenic sources. If present, contamination is expected to be localized;

- PHC contaminated groundwater was identified in soils at both AECs 3, and 4. The leading edge of PHC groundwater contamination was not fully delineated at AEC 4 due to scope limitations, airport operations, and buried utilities. Indicators of unregulated petroleum (PHC F1 and F2) impact was also identified;
- metals contaminated groundwater was detected within the PHC soil contaminated zone in AECs 3 and 4. Anthropogenic contaminant sources were not identified and exceedences may have resulted from natural element mobilization from PHC contaminant degradation; and
- No evidence of PFOS impact was identified in AEC 3; however, the AEC was not fully characterized for this PCOC.

FRANZ recommends PHC contaminated soils and groundwater (including metals) at AECs 3, and 4 be excavated and treated in an onsite land treatment facility (LTF). We assume a 7,000m^3 capacity LTF could be constructed at the Airport. Considering prevailing climatic conditions at Cambridge Bay (relatively cold temperatures, short summer), we estimate that up to 3,500m^3 of PHC contaminated soil can be cycled through the LTF annually. Prior to initiating full-scale remediation, FRANZ recommends a bench-scale treatment program be completed to confirm treatment projections/feasibility. Also, additional soil and groundwater sampling should be conducted to fully delineate the extents of PHC contamination; however, the work can be completed before or concurrent with remediation activities. Groundwater monitoring should be conducted following soil remediation activities at AEC 3, and 4 as part of a natural attenuation assessment.

FRANZ recommends additional investigation to delineate the extent of metals contamination at AECs 2, and 4. Post-remediation groundwater monitoring should be conducted at AEC 4 to assess if COCs (i.e., Zn and naphthalene) attenuate following soil petroleum hydrocarbon remediation activities. Chemical analytical results can be utilized in support of an ecological and human health risk assessment for these AECs.

14.0 REFERENCES

Dewing, K., Turner, E. and Harrison, J.C., 2007. Geological History, Mineral Occurrences and Mineral Potential of the Sedimentary Rocks of the Canadian Arctic Archipelago *in* Goodfellow, W.D., ed., Mineral Deposits of Canada: A synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, p. 733-753

British Columbia Ministry of the Environment, 2009. Contaminated Sites Regulation.
BC Reg. 375/96

Canadian Council of Ministers of the Environment, 1999. Canadian Environmental Quality Guidelines for the Protection of Aquatic Life.

Environment Canada. National Climate Data and Information Archive. Canadian Climate Normals 1971-2000. www.climate.weatheroffice.ec.gc.ca (accessed on October 27, 2009).

Geological map of the Arctic. Geological Survey of Canada, Open File, 5816.

Harrison, J C; St-Onge, M R; Petrov, O; Strelnikov, S; Lopatin, B; Wilson, F; Tella, S; Paul, D; Lynds, T; Shokalsky, S; Hults, C; Bergman, S; Jepsen, H F; Solli, A, 2008

Natural Resources Canada, 1995. National Atlas of Canada, 5th Edition, MCR 4177

Ontario Ministry of the Environment, 1989. "Upper Limits of Normal" Contaminant Guidelines for Phytotoxicology Samples.

Sharpe, D R, 1993. Surficial Geology, Cambridge Bay, District of Franklin, Northwest Territories. Geological Survey of Canada, 1825A.

15.0 LIMITATIONS

The conclusions in this report are based on information collected from the investigation locations chosen for this study. The locations were selected based on the best information available to us at the time of this study. This does not preclude the possibility that different conditions may be present elsewhere on the property. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce this possibility to an acceptable level.

Professional judgement was exercised in gathering and analysing the information obtained. Like all professional persons rendering advice, we cannot act as absolute insurers of the conclusions we reach; we commit ourselves to care and competence in reaching those conclusions. Our undertaking therefore, is to perform our work, within the limits prescribed by our client, with the usual thoroughness and competence of the profession. No other warranty or representation, expressed or implied, is included or intended in this report.

Sincerely,

Franz Environmental Inc.

Jennifer Keenliside, HBSc., CEPIT

Viviane Dubois-Côté, M.Sc., P. Geo

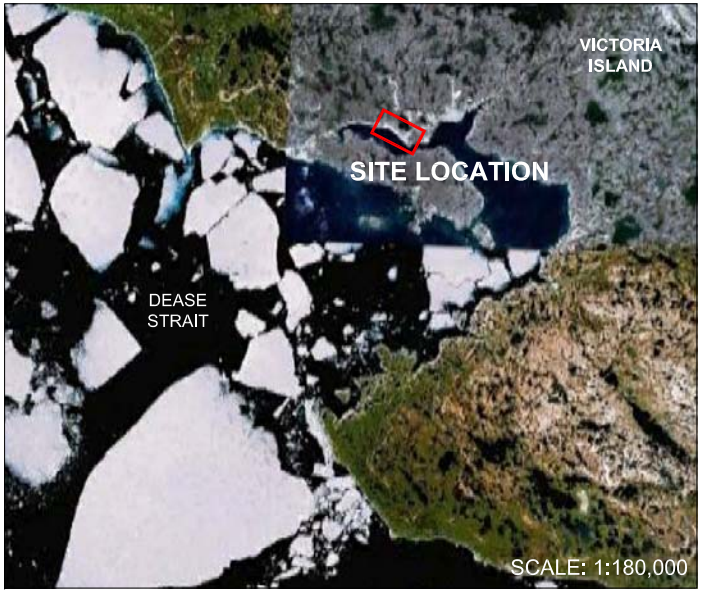
Miguel Madrid, M.Sc.

Steve Livingstone, M.Sc., P.Geo.

James Smith, B.Sc.

APPENDIX A

Figures



LEGEND

Extent of Study Area

References:

Google Earth satellite image, 2009
Site location based on dGPS coordinates (NAD 83)

Title: STUDY AREA

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

Date: MARCH 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA — TRANSPORT CANADA

Scale: See figures for scale

FIGURE 1

1748-0901/CAD/Cambridge Bay.dwg FINAL Mar 1/10

LEGEND

- Area of Potential Environmental Concern (APEC)
- Background Soil Sampling Location (Franz 2009)
- Background Vegetation Sampling Location (Franz 2009)
- YCB-01 Soil/Groundwater Sample Location - Dillon 1995
- 99-1 Soil/Groundwater Sample Location - AGRA 1999

APEC #	Description
1	Screening Plant / Boneyard
2	Shoreline Disposal Area
3	Former Fire Training Area
4	Former F.H. Ross Tank Farm
5	Former AST North of Building T-5
6	Former AST West of Building T-4

APPROXIMATE SCALE 1:6,800

200 150 100 50 0 200
metres

References:
Google Earth satellite image, 2009
APEC locations based on dGPS coordinates (UTM - NAD 83)
Sampling locations derived from historical reports

Title:
APEC LOCATIONS

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project:
CAMBRIDGE BAY AIRPORT PHASE II/III
ENVIRONMENTAL SITE ASSESSMENT
FINAL REPORT

Date:
MARCH 2010

Client:
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
TRANSPORT CANADA

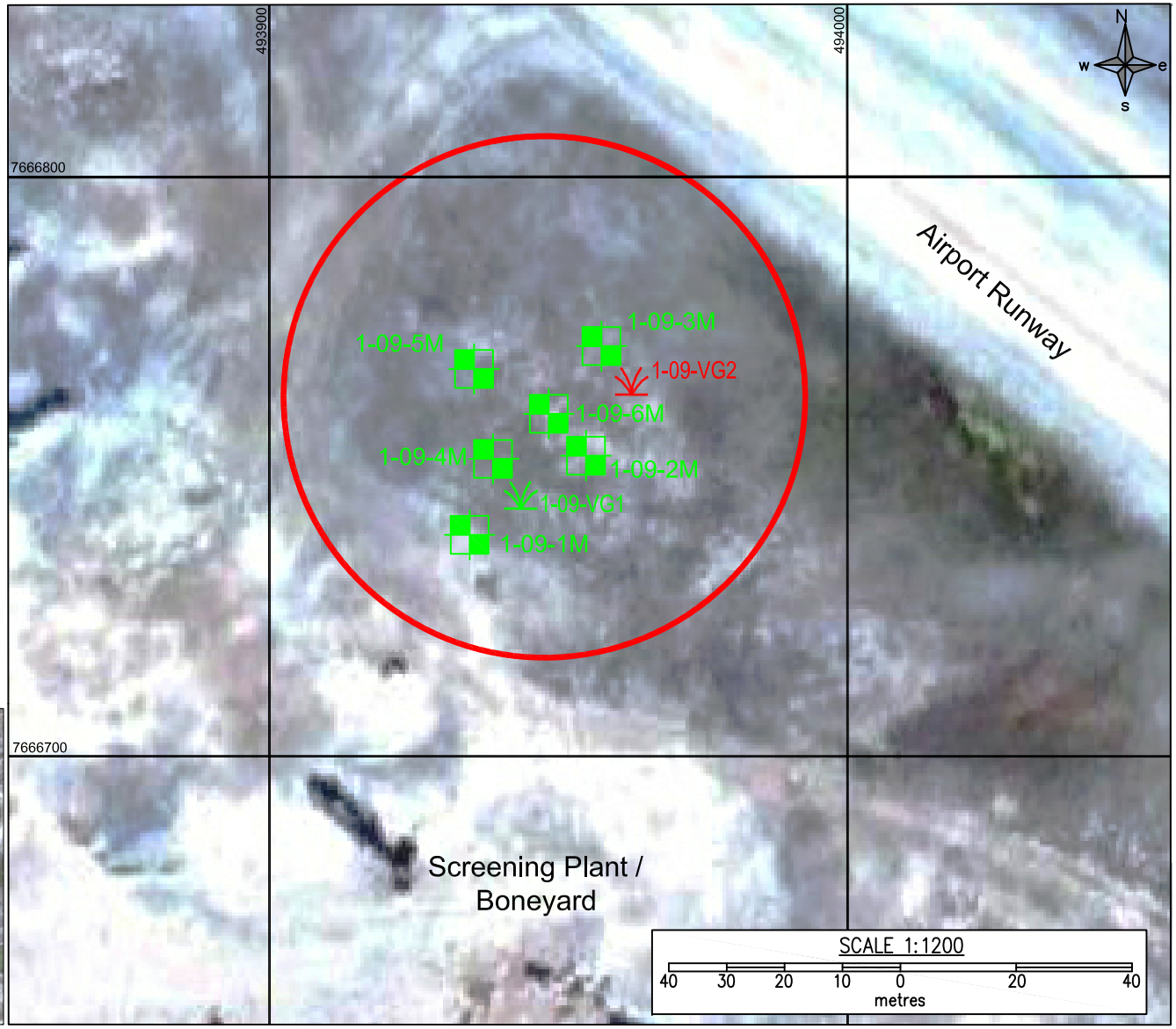
Scale:
1 : 6,600

FIGURE 2

1748-0901/CAD/Cambridge Bay.dwg FINAL Mar 1/10

VEGETATION

Station ID	MOE Vegetation Guidelines (ppm)	1-09-VG2
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948579
Molybdenum	1.5	2.6



LEGEND

- Extent of APEC
- Soil Sample (TP); compliant with CCME guidelines
- Vegetation Sample (VG); compliant with Ontario MOE guidelines
- Vegetation Sample (VG); exceeds Ontario MOE guidelines

References:
Google Earth satellite image, 2009
No exceedances were found for soil in APEC 1
Analytical results for soil and vegetation are in ug/g and can be found in Appendix G
Site locations based on dGPS coordinates (UTM - NAD 83)
CCME Soil Guidelines for Commercial land use (2008)
Vegetation analytical results compared to Ontario MOE Vegetation Guidelines

Title: APEC 1 - Screening Plant / Boneyard Sampling Locations and Analytical Results (Soil & Vegetation)

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

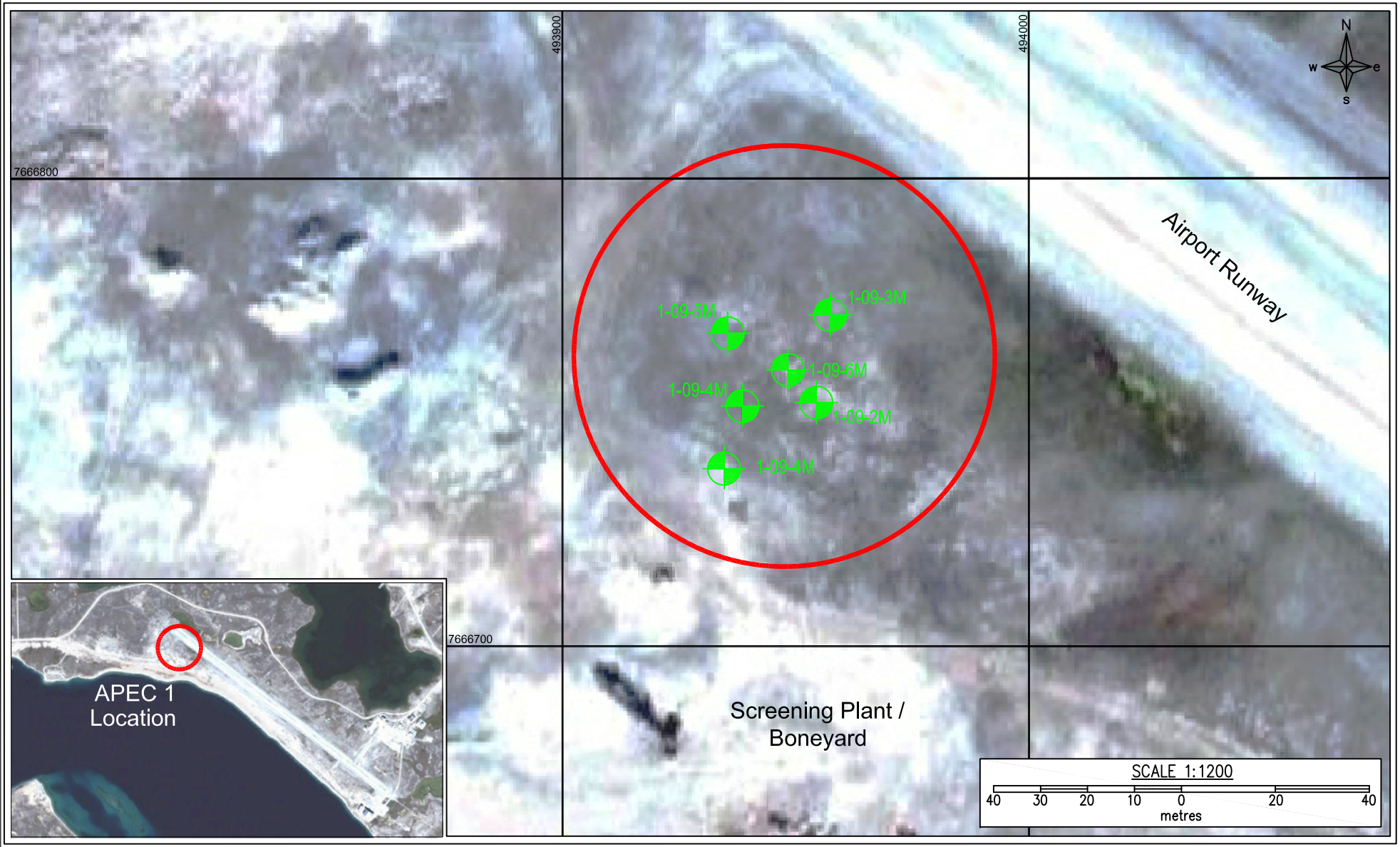
Date: MARCH 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA / TRANSPORT CANADA

Scale: 1 : 1,200

FIGURE 3

1748-0901/CAD/Cambridge Bay.dwg FINAL Mar 1/10



LEGEND

- Extent of APEC
- Groundwater Sample (GW); compliant with BC-CSR guidelines

References:
Google Earth satellite image, 2009
No exceedances were found for groundwater in APEC 1
Analytical results for groundwater are in ug/L and can be found in Appendix G
Site locations based on dGPS coordinates (UTM - NAD 83)
British Columbia Contaminated Site Regulation (CSR) for Marine Receptors (2009)

Title: APEC 1 - Screening Plant / Boneyard Sampling Locations and Analytical Results - Groundwater

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

Date: MARCH 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA — TRANSPORT CANADA

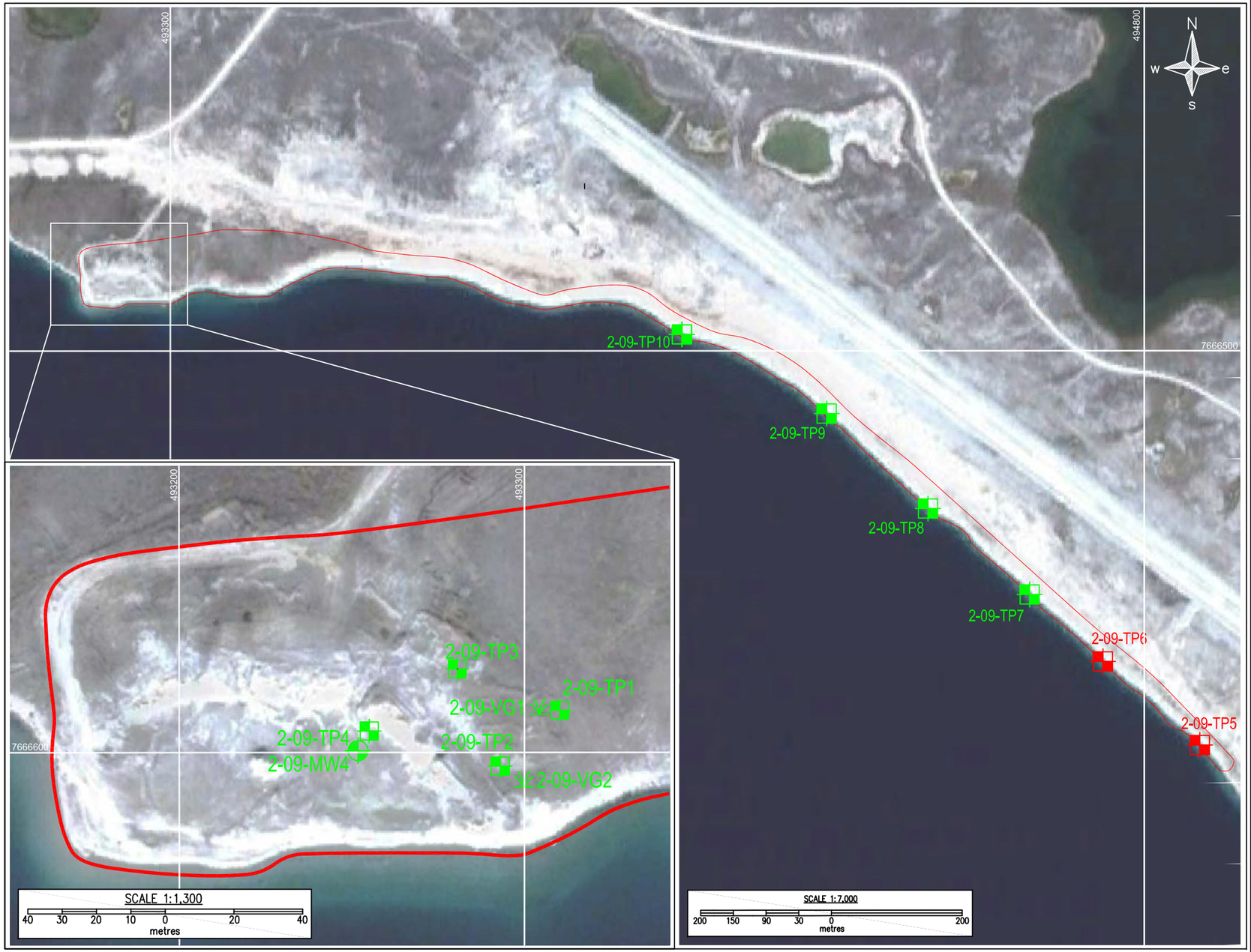
Scale: 1 : 1,200

FIGURE 4

1748-0901/CAD/Cambridge Bay.dwg FINAL Mar 1/10

SOIL

Station ID	CCME Soil (Commercial)	2-09-TP5	2-09-TP5	2-09-TP6
Field label		2-09-TP5-1	GR2	2-09-TP6-1
Duplicate ID		GR2	2-09-TP5-1	
Date		29/Aug/09	29/Aug/09	29/Aug/09
Lab report ID		A947822	A947822	A947822
Depth (m)		0.4 – 0.6	0.4 – 0.6	0.2 – 0.6
Metals				
Arsenic	12	3.3	2.0	40.6
Copper	91	94.5	102.0	24.5



LEGEND

- Extent of APEC
- Soil Sample (TP); compliant with CCME guidelines
- Soil Sample (TP); exceeds CCME guidelines
- Groundwater Sample (GW); compliant with BC-CSR guidelines
- Vegetation Sample (VG); compliant with Ontario MOE guidelines

References:
Google Earth satellite image, 2009
No exceedances were found in vegetation or groundwater at APEC 2
Analytical results for soil and vegetation are in ug/g and can be found in Appendix G
Analytical results for groundwater are in ug/L and can be found in Appendix G
Site locations based on dGPS coordinates (UTM - NAD 83)
CCME Soil Guidelines for Commercial land use (2008)
British Columbia Contaminated Sites Regulations (CSR) for Marine Receptors (2009)
Vegetation analytical results compared to Ontario MOE Vegetation Guidelines

Title: APEC 2 - Shoreline Disposal Area Sampling Locations and Analytical Results - Soil, Vegetation & Groundwater

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

Date: MARCH 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA / TRANSPORT CANADA

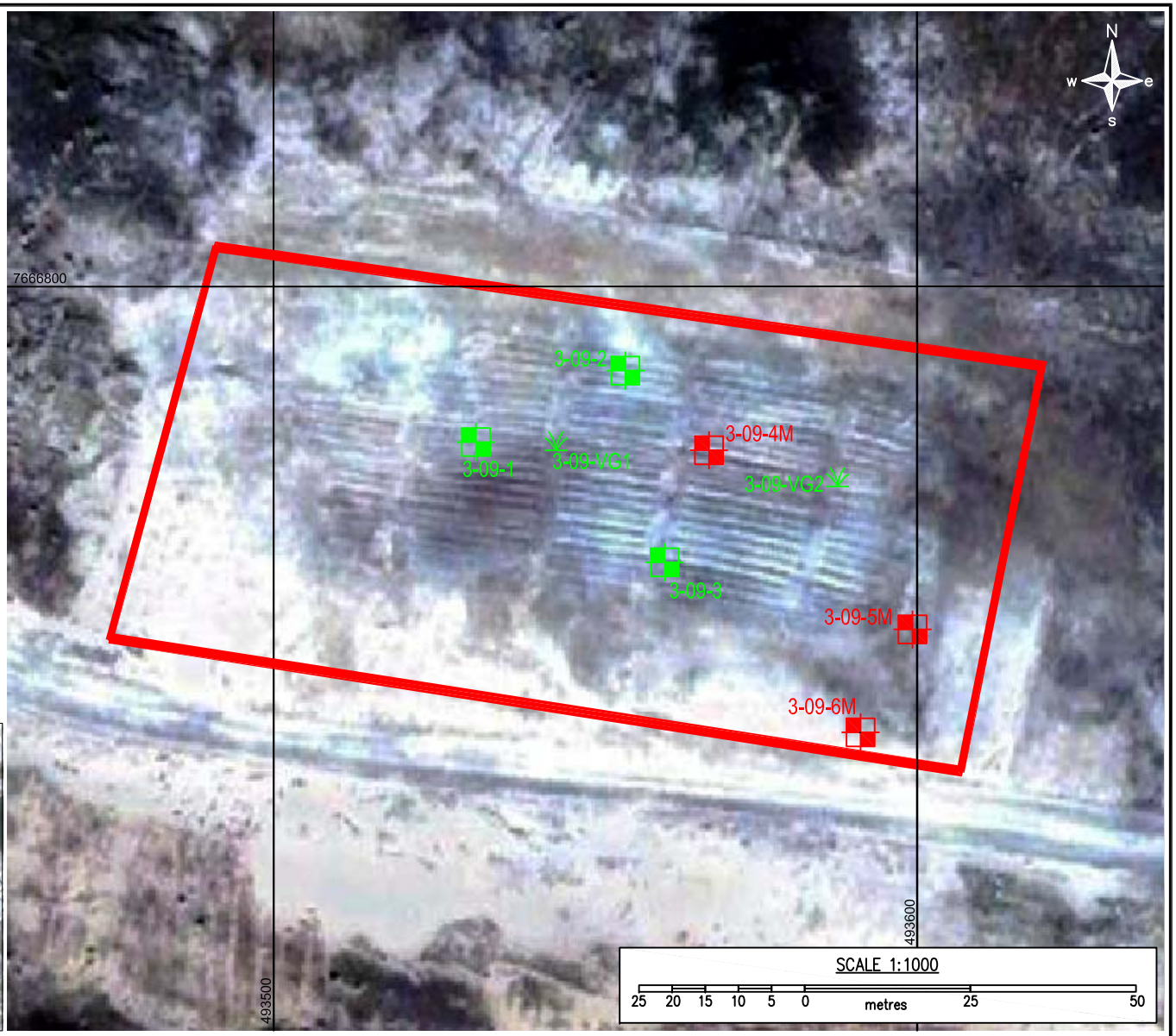
Scale: See figures for scale

FIGURE 5

SOIL

Station ID	CCME Soil (Commercial)	3-09-4M	3-09-4M	3-09-5M
Field label		3-09-4M-2	3-09-4M-3	3-09-5M-2
Duplicate ID				
Date		29/Aug/09	29/Aug/09	29/Aug/09
Lab report ID		A947822	A947822	A947822
Depth (m)		0.5 – 2	2 – 2.1	0.5 – 1
PHCs				
Benzene	0.03	0.86	1.2	<0.005
F2 (C10-C16)	260*	16	27	1700

Station ID	CCME Soil (Commercial)	3-09-6M	3-09-6M
Field label		3-09-6M-3	3-09-DUP-2
Duplicate ID		3-09-DUP-2	3-09-6M-3
Date		29/Aug/09	29/Aug/09
Lab report ID		A947822	A947822
Depth (m)		1 – 2	1 – 2
PHCs			
Ethylbenzene	0.082	0.08	0.10
F2 (C10-C16)	260*	850	860



LEGEND

- Extent of APEC
- Soil Sample (TP); compliant with CCME guidelines
- Soil Sample (TP); exceeds CCME guidelines
- Vegetation Sample (VG); compliant with Ontario MOE guidelines

References:
Google Earth satellite image, 2009
No exceedances were found in vegetation in APEC 3
Analytical results for soil and vegetation are in ug/g and can be found in Appendix G
Site locations based on dGPS coordinates (UTM - NAD 83)
CCME Soil Guidelines for Commercial land use (2008)
Vegetation analytical results compared to Ontario MOE Vegetation Guidelines

Title: APEC 3 - Former Fire Training Area Sampling Locations and Analyticals Results - Soil & Vegetation

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

Date: MARCH 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA | TRANSPORT CANADA

Scale: 1 : 1,000

FIGURE 6

1748-0901/CAD/Cambridge Bay.dwg FINAL Mar 1/10

GROUNDWATER

Station ID	BC CSR (Marine)	3-09-4M	3-09-5M
Field label		3-09-4M	3-09-5M
Duplicate ID			
Date		2/Sep/09	2/Sep/09
Lab report ID		A948731	A948731
Metals			
Lead	20	100	<2
BTEX / PHCs			
Benzene	1000	1700	670.0
PAHs			
Naphthalene	10	330	84

LEGEND

- Extent of APEC
- Groundwater Sample (GW); compliant with BC-CSR guidelines
- Groundwater Sample (GW); exceeds BC-CSR guidelines

SCALE 1:1000

25 20 15 10 5 0 metres 25 50

References:
Google Earth satellite image, 2009
Analytical results for groundwater are in ug/L and can be found in Appendix G
Site locations based on dGPS coordinates (UTM - NAD 83)
British Columbia Contaminated Site Regulations (CSR) for Marine Receptors (2009)

Title: APEC 3 - Former Fire Training Area Sampling Locations and Analytical Results - Groundwater

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

Date: MARCH 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA | TRANSPORT CANADA

Scale: 1 : 1,000

FIGURE 7

1748-0901/CAD/Cambridge Bay.dwg FINAL Mar 1/10

SOIL

Station ID	CCME Soil (Commercial)	4A-09-3M	4A-09-4	4A-09-5	4A-09-8
Field label		4A-09-3M-1	4A-09-4-1	4A-09-5-1	4A-09-8-1
Duplicate ID					
Date		30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID		A947822	A947822	A947822	A947822
Depth (m)		0.5 – 1	1.9 – 2	1.3 – 1.5	1 – 1.7
Metals					
Lead	260	13.5	14.4	294.0	-
BTEX / PHCs					
Benzene	0.03	1.0	2.9	4.6	0.046
Ethylbenzene	0.082	5.6	6.8	6.5	0.07
Toluene	0.37	15.00	37.0	1.5	0.06
Xylenes (total)	11	29.0	140.0	76.0	2.5
F1 (C6-C10)	320*	4800	4600	4400	-
F1 (C6-C10) minus BTEX	320*	4700	4400	4300	180
F2 (C10-C16)	260*	740	3700	12000	150
F3 (C16-C34)	1700*	140	520	6400	120
F4 (C34-C50)	3300*	<10	11	3900	<10

* CCME Canada-Wide Standards for Petroleum Hydrocarbons in Soil

LEGEND

- Extent of APEC
- Soil Sample; compliant with CCME guidelines
- Soil Sample; exceeds CCME guidelines

SCALE 1:1000

25 20 15 10 5 0 metres 25 50

References:
Google Earth satellite image, 2009
Analytical results for soil and vegetation are in ug/g and can be found in Appendix G
Site locations based on dGPS coordinates (UTM - NAD 83)
CCME Soil Guidelines for commercial land use (2008) and
CCME Canada-Wide Standards for Petroleum Hydrocarbons in soil (2008)

Title: APEC 4 - Former F.H. Ross Sampling Locations and Analytical Results - Soil

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

Date: MARCH 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA / TRANSPORT CANADA

Scale: 1 : 1,000

FIGURE 8

1748-0901/CAD/Cambridge Bay.dwg FINAL Mar 1/10

GROUNDWATER

Station ID	CCME AW (Freshwater)	BC CSR (Marine)	4A-09-2M	4A-09-3M
Field label			4-09-2M	4-09-3M
Duplicate ID				
Date			2/Sep/09	2/Sep/09
Lab report ID			A948579	A948579
Zinc	30	100	280	<30
PAHs				
Naphthalene	1.1	10	<0.10	14.0

SURFACE WATER

Station ID	CCME AW (Freshwater)	4-09-SW1
Field label		4-09-SW1
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948579
Screen depth (m)		
Aluminum	5	20

LEGEND

- Extent of APEC
- Groundwater Sample (GW); compliant with BC-CSR guidelines
- Groundwater Sample (GW); exceeds BC-CSR guidelines
- Surface Water sample (SW); exceeds CCME guidelines

References:
Google Earth satellite image, 2009
See Appendix G for Analytical Results
Site locations based on dGPS coordinates (UTM - NAD 83)
British Columbia Contaminated Site Regulations (BC-CSR) for Marine Receptors (2009)

Title: APEC 4 Sampling Locations and Analytical Results (Groundwater)

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

Date: FEBRUARY 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA — TRANSPORT CANADA

Scale: 1 : 1,000

FIGURE 9

1748-0901/CAD/Cambridge Bay.dwg FINAL Feb 22/10

LEGEND

- Extent of APEC
- Soil Sample; compliant with CCME guidelines
- Soil sample (TP); compliant with CCME guidelines
  Groundwater sample (GW); compliant with BC-CSR guidelines

References:
Google Earth satellite image, 2009
See Appendix G for Analytical Results
Site locations based on dGPS coordinates (UTM - NAD 83)
British Columbia Contaminated Site Regulations (CSR) for Marine Receptors (2009)

Title:
APECs 5 & 6 Sampling Locations and Analytical Results (Groundwater)

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project:
CAMBRIDGE BAY AIRPORT PHASE II/III
ENVIRONMENTAL SITE ASSESSMENT
FINAL REPORT

Date:
FEBRUARY 2010

Client:
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
TRANSPORT CANADA

Scale:
1 : 1,000

FIGURE 10

1748-0901/CAD/Cambridge Bay.dwg FINAL Feb 22/10

LEGEND

Approximate extent of contamination

Extent not fully delineated

References:
Google Earth satellite image, 2009
Site locations based on dGPS coordinates (UTM - NAD 83)

Title: AEC 2 - Estimated Extent of Contamination

FRANZ ENVIRONMENTAL INC.
CONSULTING ENGINEERING TECHNOLOGIES

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

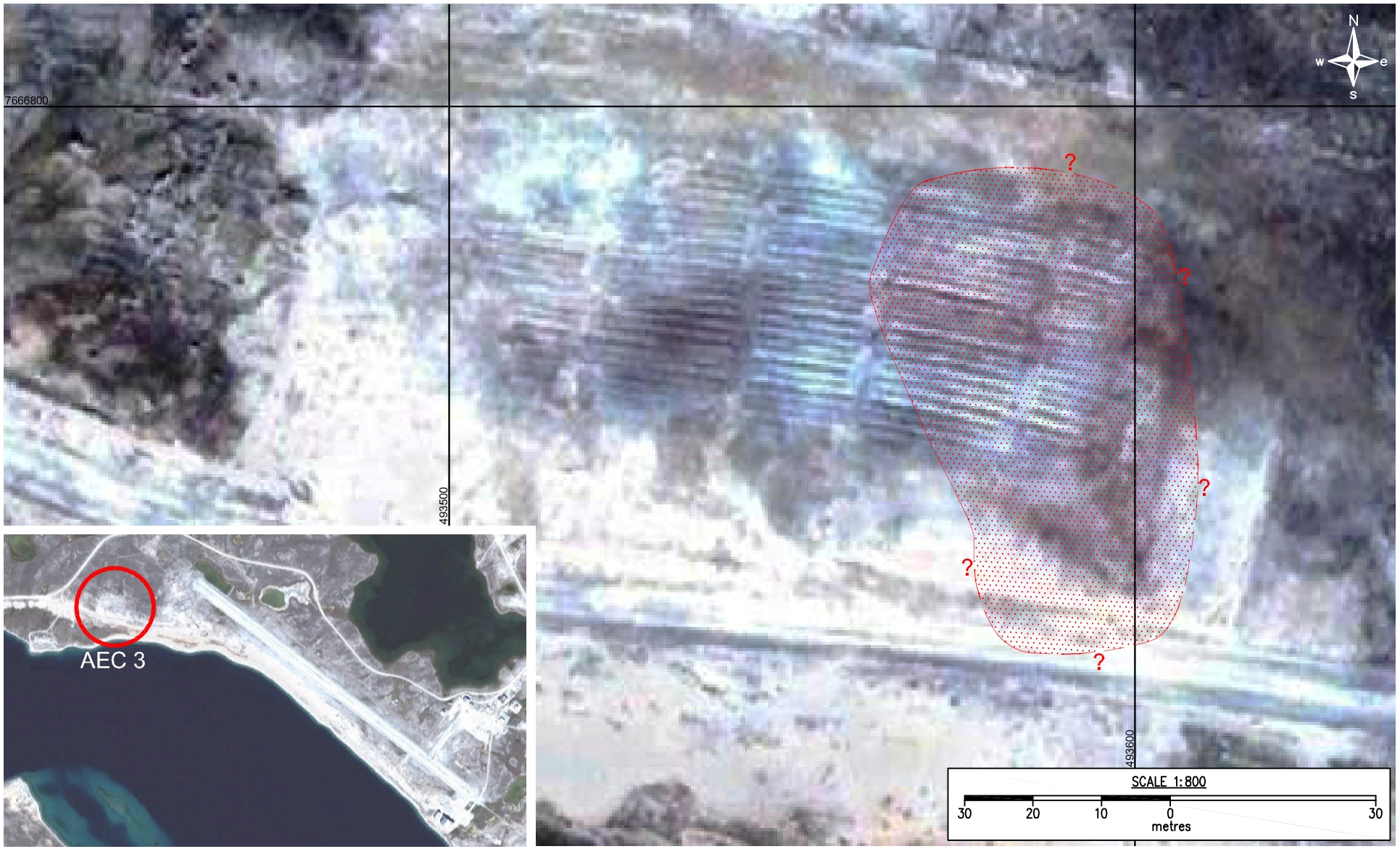
Date: APRIL 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA / TRANSPORT CANADA

Scale: See figures for scale

FIGURE 11

1748-0901/CAD/Cambridge Bay.dwg FINAL Feb 22/10



LEGEND

Approximate extent of contamination

Extent not fully delineated

References:
Google Earth satellite image, 2009
Site locations based on dGPS coordinates (UTM - NAD 83)

Title: AEC 3 - Estimated Extent of Contamination

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

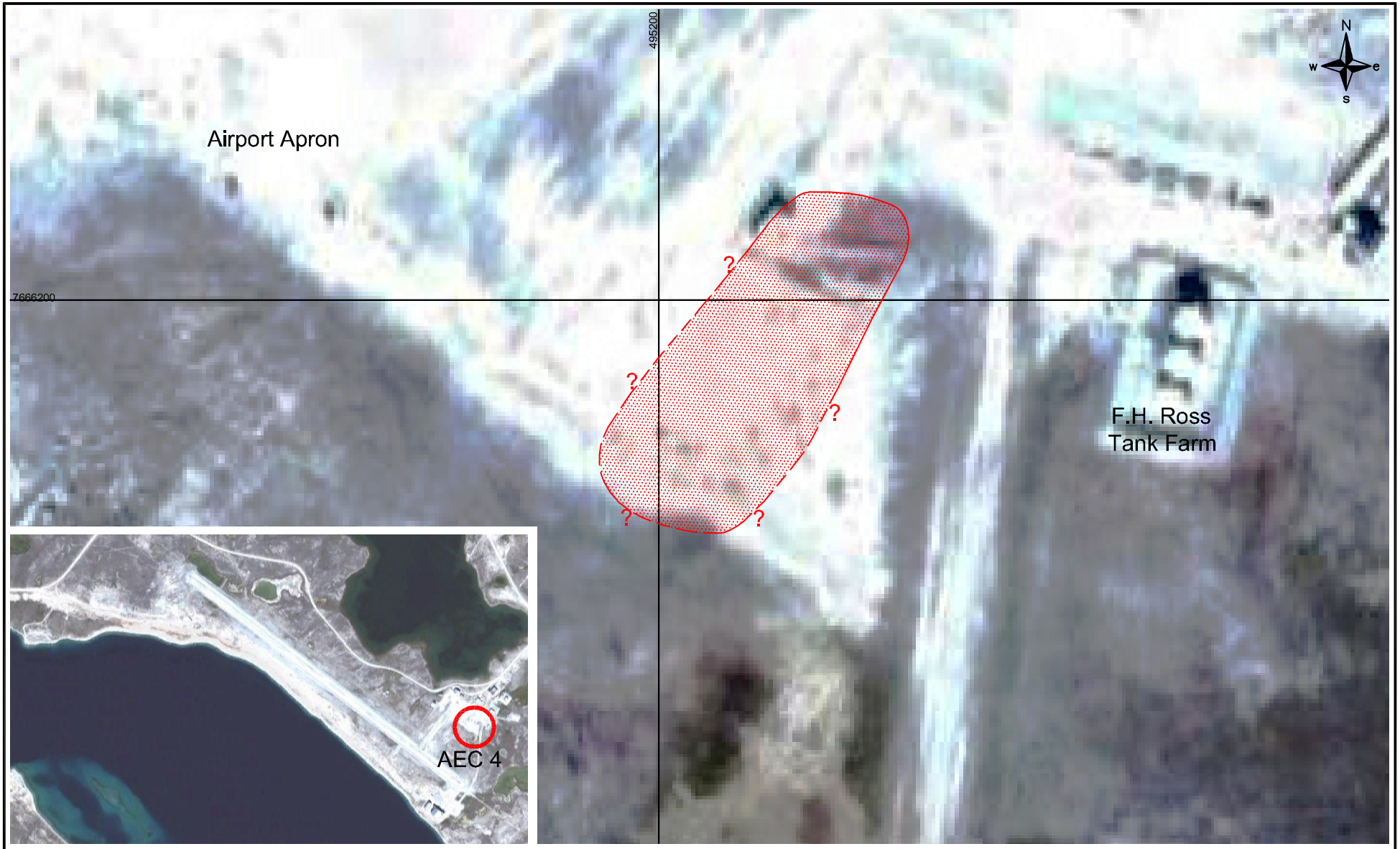
Date: APRIL 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA / TRANSPORT CANADA

Scale: 1 : 800

FIGURE 12

1748-0901/CAD/Cambridge Bay.dwg FINAL Feb 22/10



LEGEND

Approximate extent of contamination

Extent not fully delineated

SCALE 1:800

30 20 10 0 30

metres

References:
Google Earth satellite image, 2009
Site locations based on dGPS coordinates (UTM - NAD 83)

Title: AEC 4 - Estimated Extent of Contamination

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT FINAL REPORT

Date: APRIL 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA / TRANSPORT CANADA

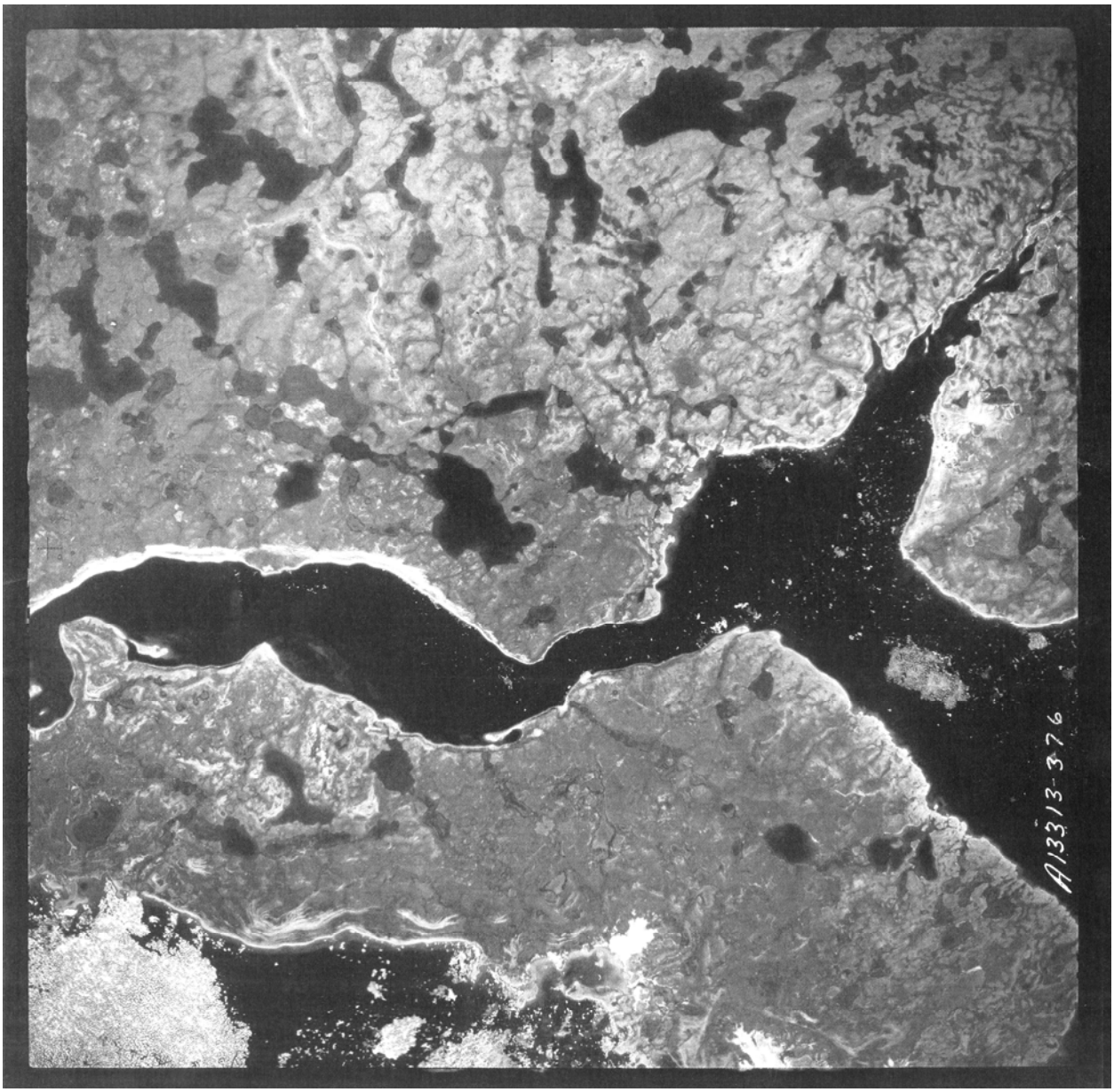
Scale: 1 : 800

FIGURE 13

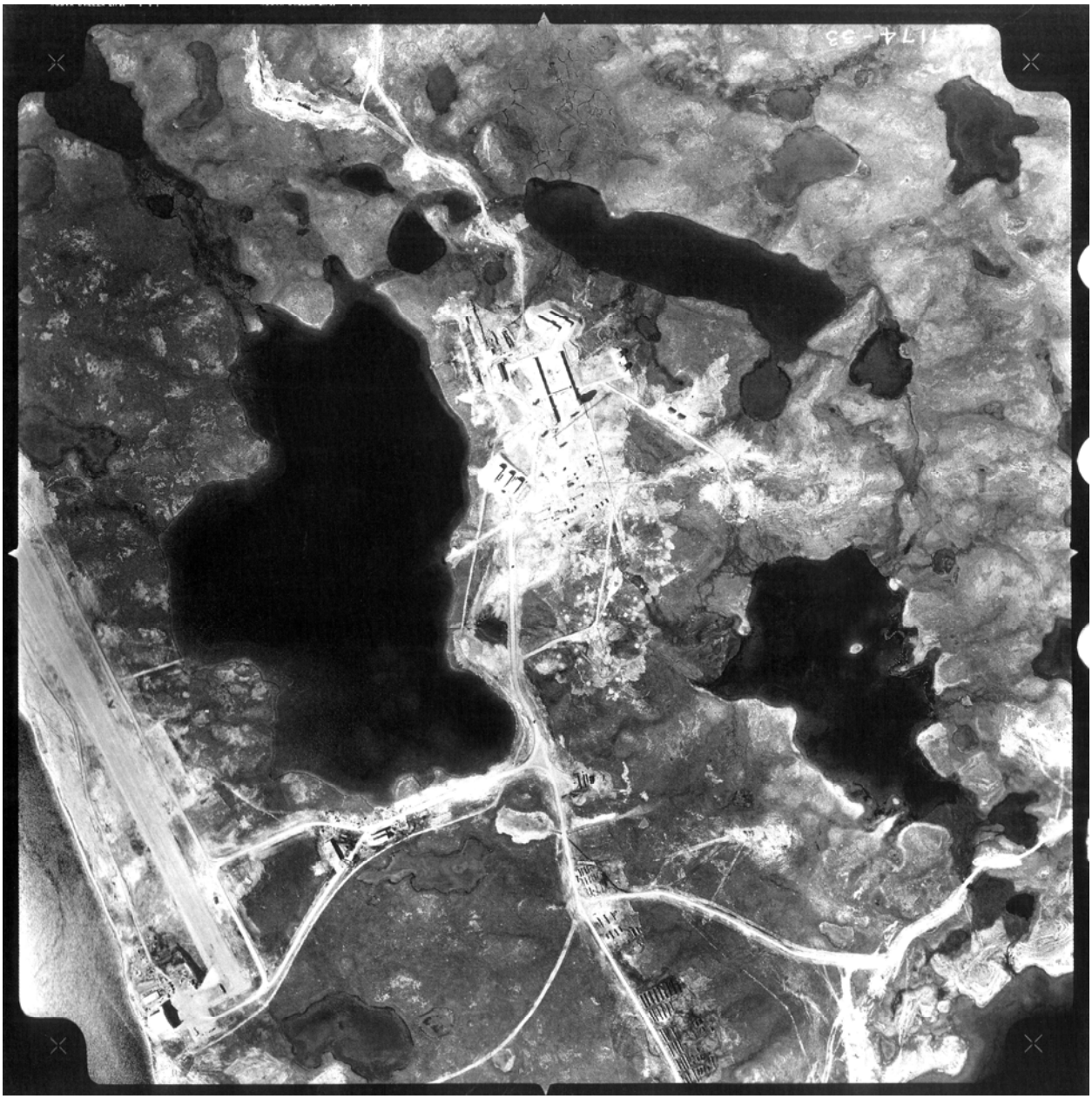
1748-0901/CAD/Cambridge Bay.dwg FINAL Feb 22/10

APPENDIX B

Aerial Photographs



Aerial Photograph Date: 1951
Photo Number: A13313-376
Scale: 1: 40,000



Aerial Photograph Date: 1960
Photo Number: A17174-13
Scale: 1: 10,000

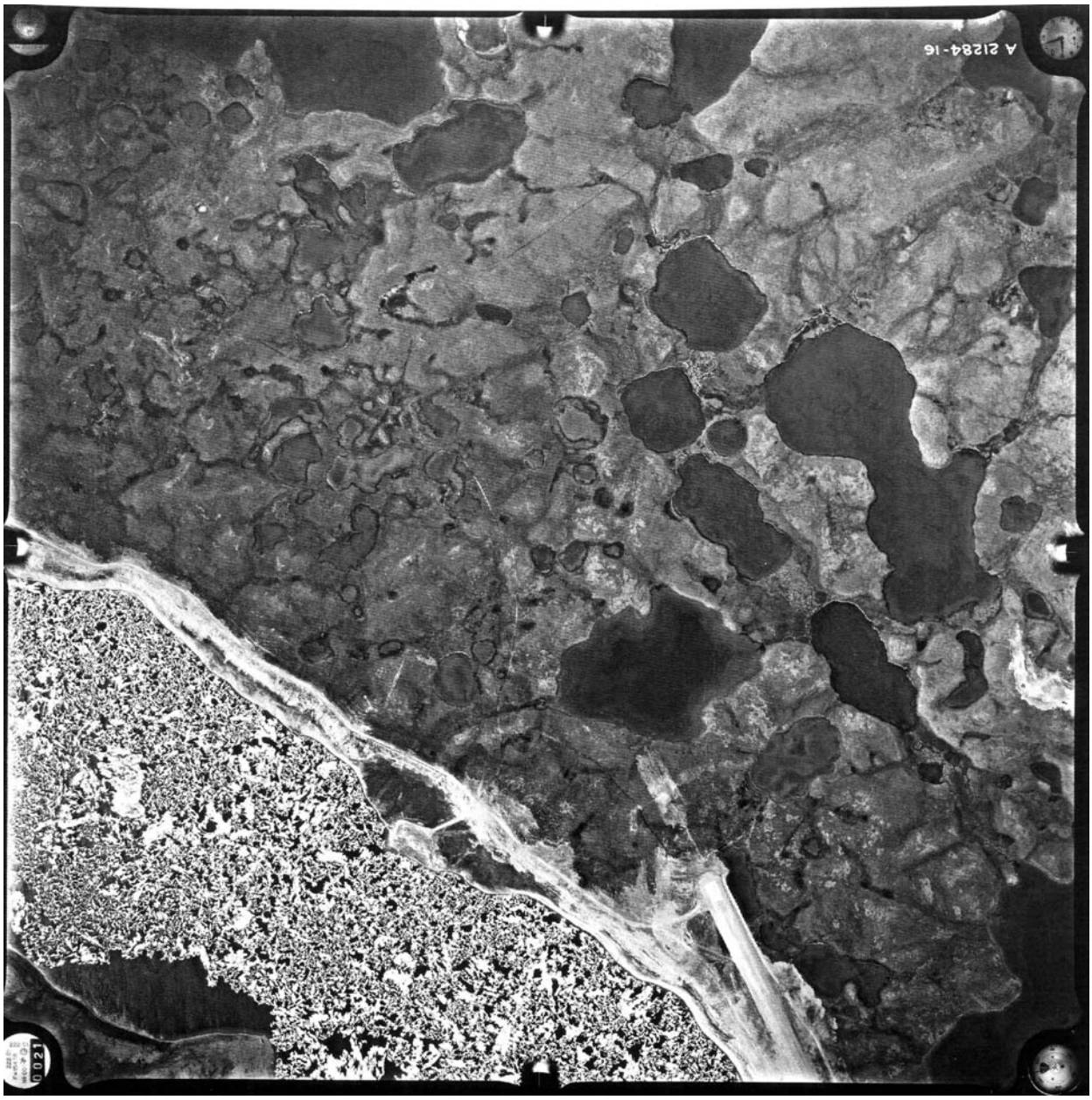
Aerial Photograph Date: 1960
Photo Number: A17174-13
Scale: 1: 10,000

Aerial Photograph Date: 1960
Photo Number: A17174-34
Scale: 1: 10,000

Aerial Photograph Date: 1960
Photo Number: A17174-35
Scale: 1: 10,000

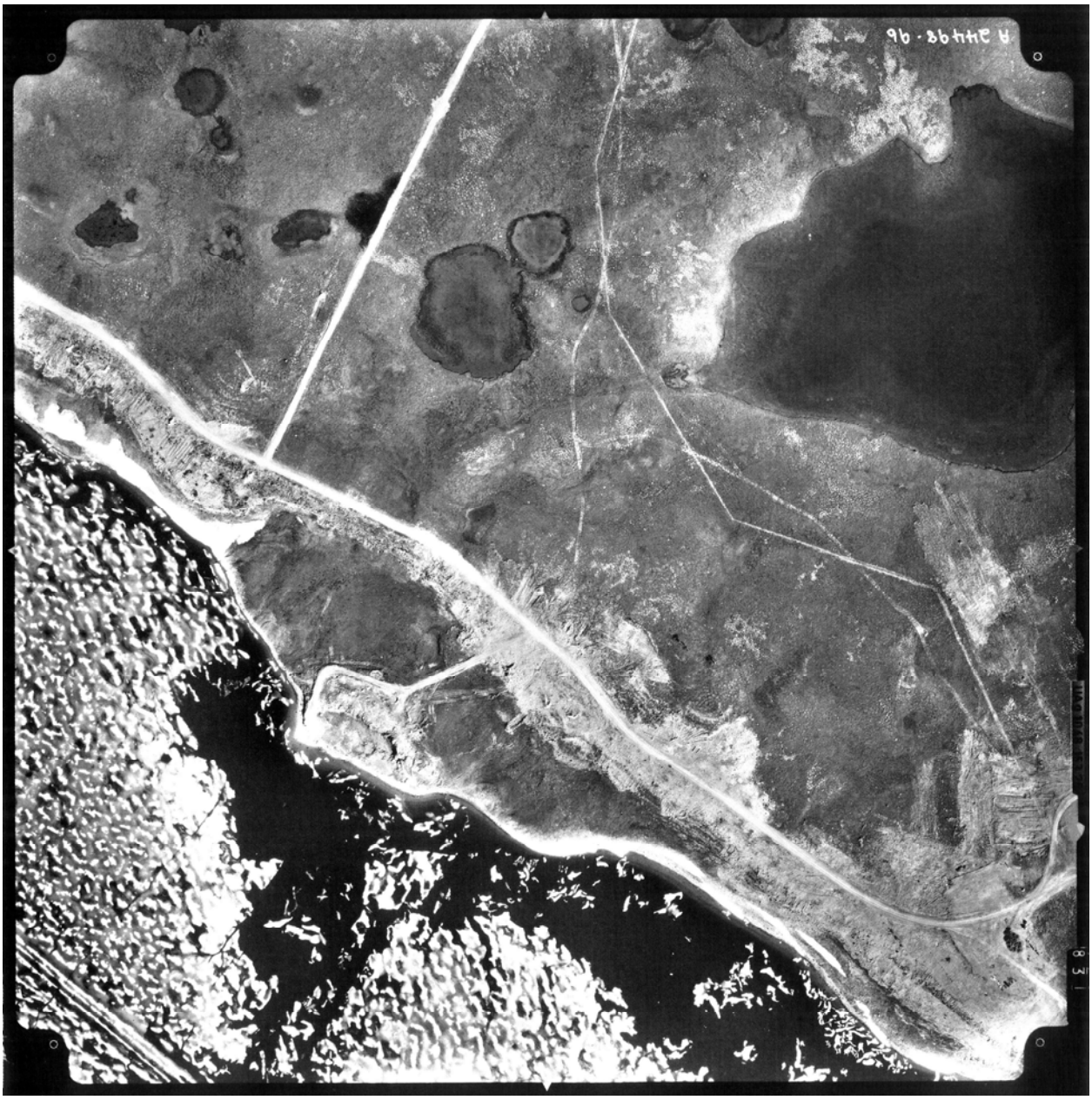
Aerial Photograph Date: 1965
Photo Number: A19352-13
Scale: 1: 12,000

Aerial Photograph Date: 1965
Photo Number: A19352-14
Scale: 1: 12,000



Aerial Photograph Date: 1969
Photo Number: A21284-16
Scale: 1: 12,000

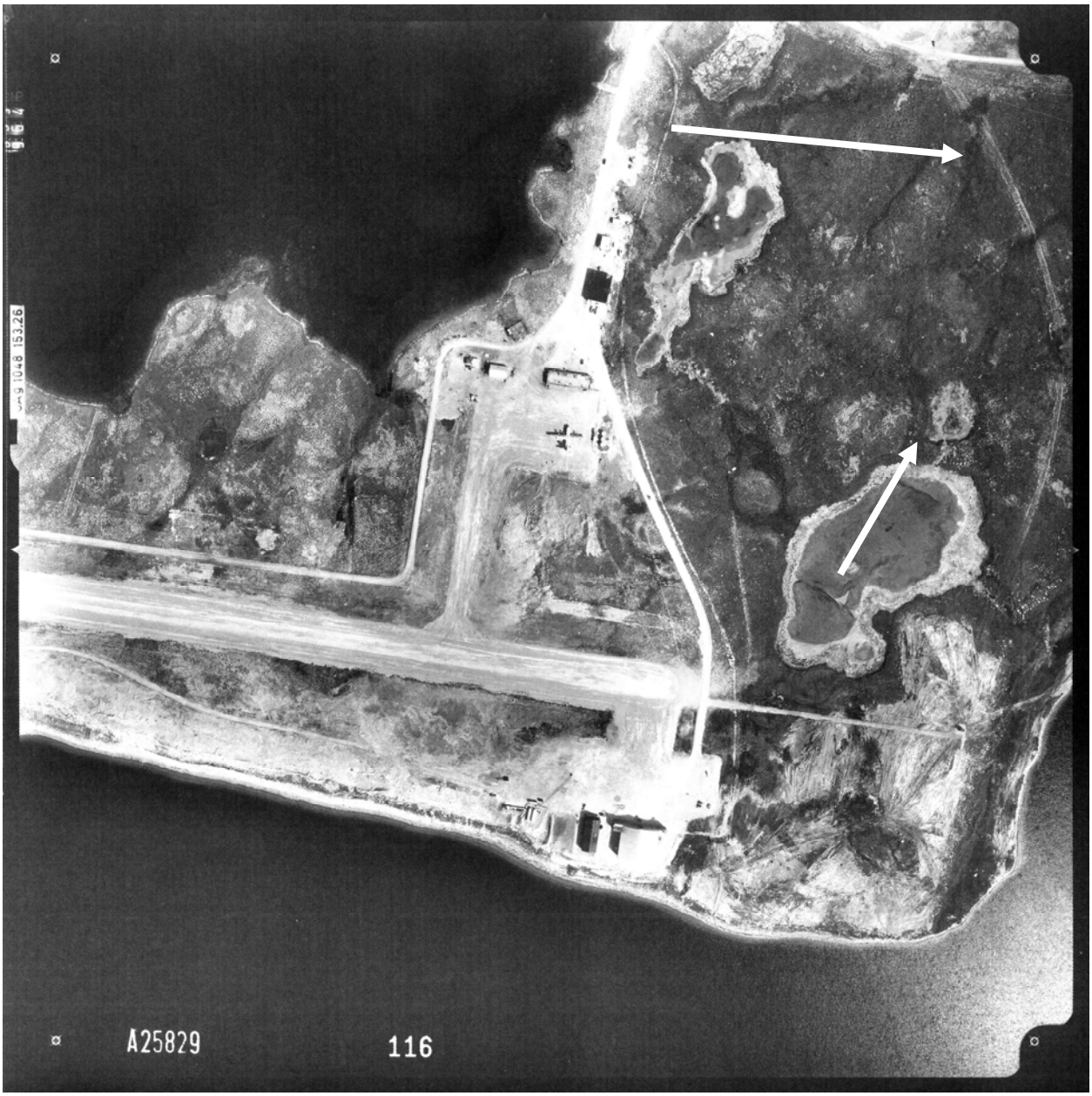
Aerial Photograph Date: 1969
Photo Number: A21284-28
Scale: 1: 12,000



Aerial Photograph Date: 1976
Photo Number: A24498-96
Scale: 1: 5,000

Aerial Photograph Date: 1976
Photo Number: A24498-61
Scale: 1: 5,000

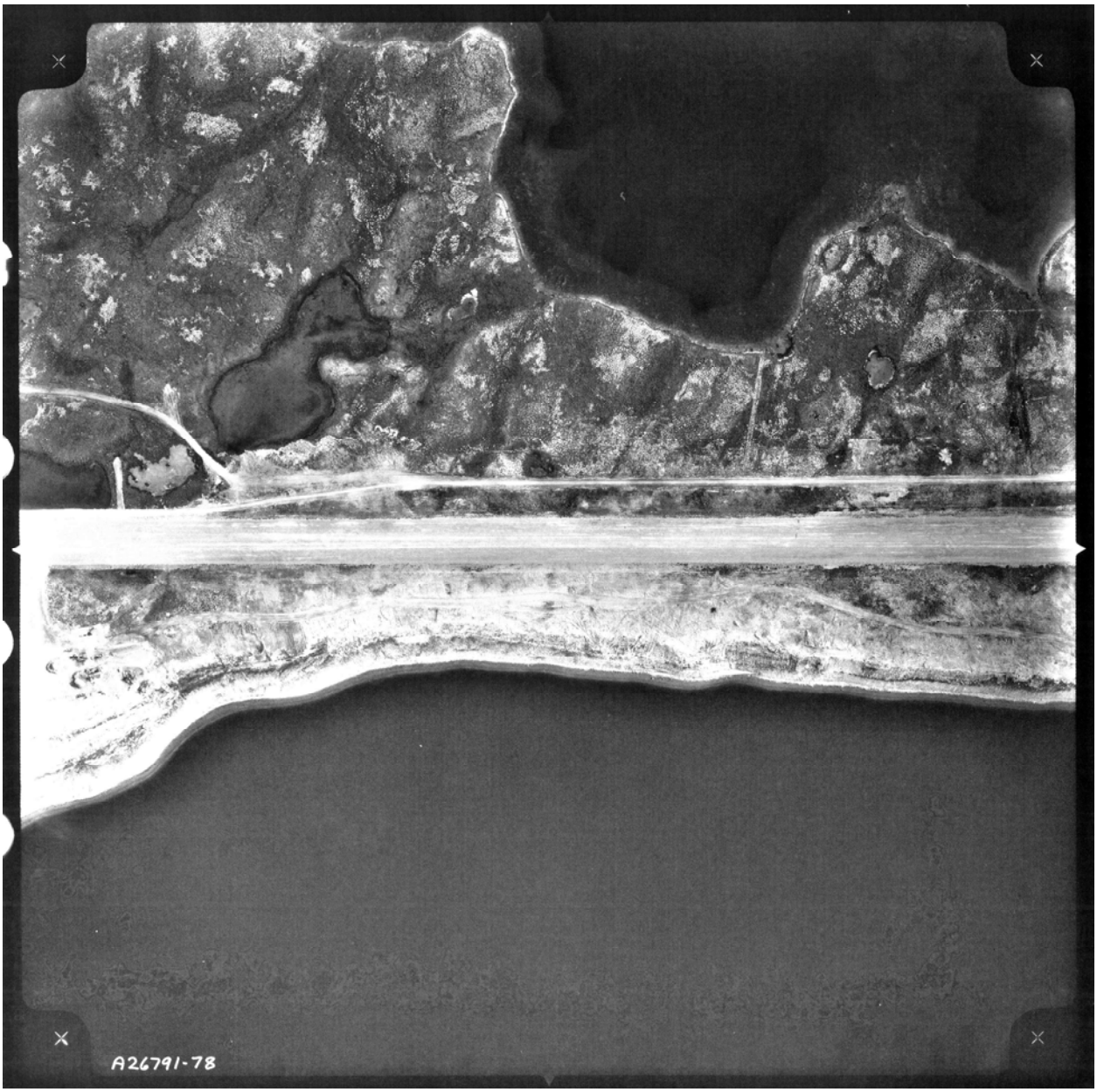
Aerial Photograph Date: 1976
Photo Number: A24498-68
Scale: 1: 5,000



Aerial Photograph Date: 1981
Photo Number: A25829
Scale: 1: 5,000

Aerial Photograph Date: 1981
Photo Number: A25829-112
Scale: 1: 5,000

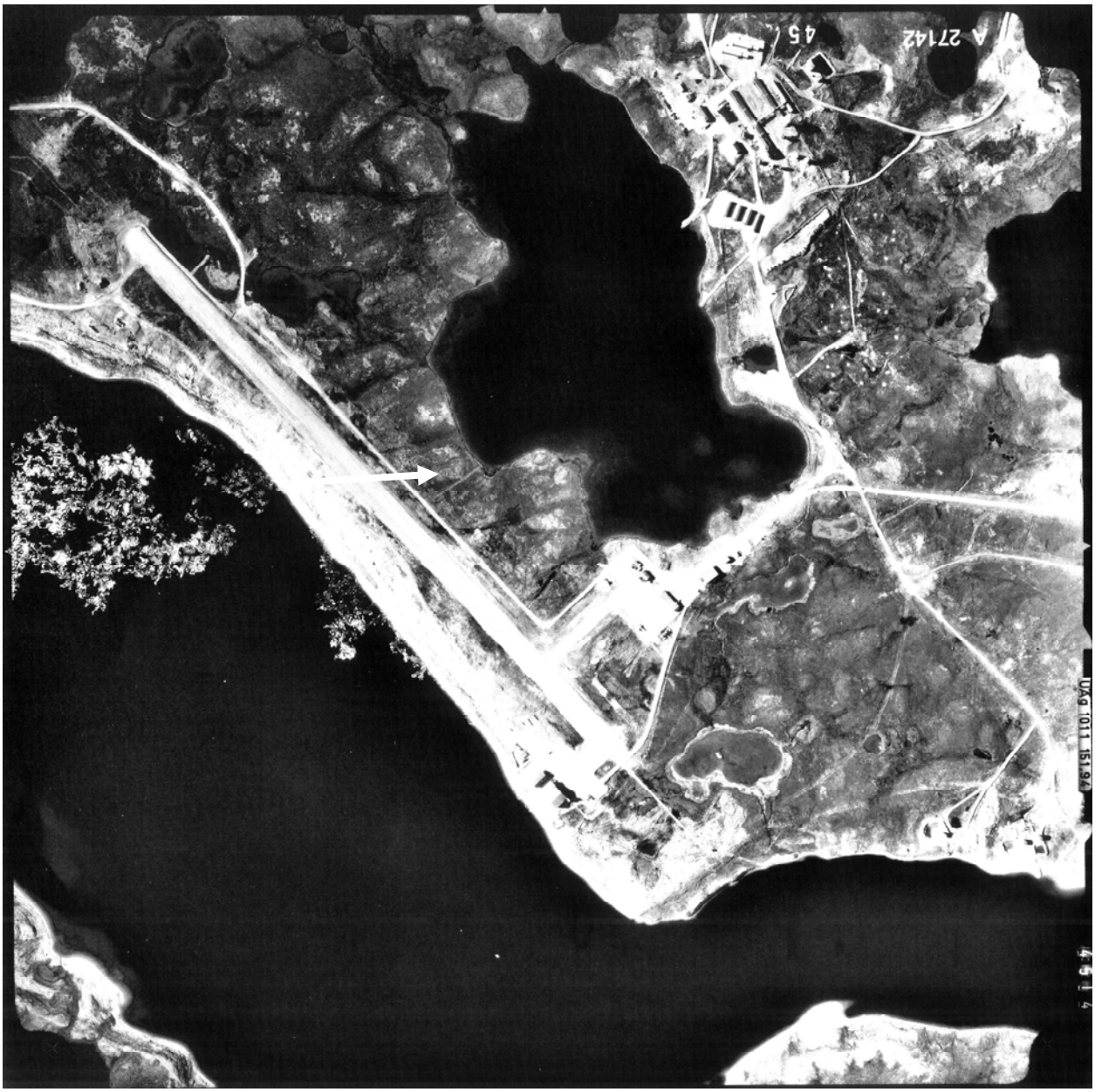
Aerial Photograph Date: 1981
Photo Number: A25829-109
Scale: 1: 5,000



Aerial Photograph Date: 1985
Photo Number: A26791-78
Scale: 1: 5,000

Aerial Photograph Date: 1985
Photo Number: A26791-24
Scale: 1: 5,000

Aerial Photograph Date: 1985
Photo Number: A26791-15
Scale: 1: 5,000



Aerial Photograph Date: 1987
Photo Number: A27142-45
Scale: 1: 12,000

Aerial Photograph Date: 1987
Photo Number: A27142-47
Scale: 1: 12,000

APPENDIX C

Test Pit and Borehole Logs

TEST PIT BOREHOLE LOGS
Cambridge Bay, Nunavut

Date:	29-Aug-09	**Easting:**	493936		SAMPLES		
Logged by:	VDC	**Northing:**	7666738				
Method:	Backhoe			**Test Pit: 1-09-1M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 1 - Screening Plant / Boneyard**						
Depth (m)	Description						
0-1.7	SANDY SILT and gravel, brown, stiff, dry; sampled at 0.9m (1-09-1M-1)				0	PHC	Monitoring well installed Riser: 0-0.9 m Screen: 0.9-1.7 m
	EOT @ 1.7 m						

Date:	29-Aug-09	**Easting:**	493954		SAMPLES		
Logged by:	VDC	**Northing:**	7666752				
Method:	Backhoe			**Test Pit: 1-09-2M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 1 - Screening Plant / Boneyard**						
Depth (m)	Description						
0.0-0.1	ORGANIC - black, fine				-	PHC, Metals, PCB/Pesticides, VOC, PAH, Glycol	Monitoring well installed Riser: 0-0.45 m Screen: 0.45-1.5 m
0.1-1.5	SILT - light brown, some gravel, trace sand, medium stiffness, moist; sampled between 0.5-1 m (1-09-2M-1)				0		
	EOT @ 1.5 m - permafrost						

Date:	29-Aug-09	**Easting:**	493957		SAMPLES		
Logged by:	VDC	**Northing:**	7666771				
Method:	Backhoe			**Test Pit: 1-09-3M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 1 - Screening Plant / Boneyard**						
Depth (m)	Description						
0.0-0.1	ORGANIC - black, fine				-	PHC, Metals	Monitoring well installed Riser: 0-0.45 m Screen: 0.45-1.3 m
0.1-1.3	SILT - light brown, trace sand, some gravel, medium stiffness, moist, water at bottom of test pit; sampled between 0.5-1 m (1-09-3M-1)				0		
	EOT @ 1.3 m - permafrost						

Date:	30-Aug-09	**Easting:**	493938		SAMPLES		
Logged by:	VDC	**Northing:**	7666751				
Method:	Backhoe			**Test Pit: 1-09-4M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 1 - Screening Plant / Boneyard**						
Depth (m)	Description					1-09-4M-1	
0.0-0.1	ORGANIC - black, fine, moist				-	PHC, Metals	Monitoring well installed Riser: 0-0.6 m Screen: 0.6-1.5 m
0.1-1.5	SILT - light brown, some sand, some gravel & cobbles, medium stiff, moist; sampled between 0.5-1 m (1-09-4M-1 & 1-09-DUP-1)				0	1-09-DUP-1 PHC	
	EOT @ 1.5 m - permafrost						

Date:	29-Aug-09	**Easting:**	493935		SAMPLES		
Logged by:	VDC	**Northing:**	7666767				
Method:	Backhoe			**Test Pit: 1-09-5M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 1 - Screening Plant / Boneyard**						
Depth (m)	Description						
0.0-0.1	ORGANIC - black, fine, moist				-	PHC, Metals, VOC	Monitoring well installed Riser: 0-0.35 m Screen: 0.35-1.2 m
0.1-1.5	SILT - light brown, some sand, some gravel and cobbles, medium stiff, moist; sampled between 0-0.5 m (1-09-5M-1)				0		
	EOT @ 1.5 m - permafrost						

Date:	29-Aug-09	**Easting:**	493948		SAMPLES		
Logged by:	VDC	**Northing:**	7666759				
Method:	Backhoe			**Test Pit: 1-09-6M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 1 - Screening Plant / Boneyard**						
Depth (m)	Description						
0.0-0.1	ORGANIC				-	PHC, Metals, PCB, VOC, PAH, Sieve	Monitoring well installed Riser: 0-0.5 m Screen: 0.5-1.3 m
0.1-1.3	SILT - light brown, some sand, some gravel & cobbles, medium stiff; sampled between 0.5-1 m (1-09-6M-1)				0		
	EOT @ 1.3 m						

Notes:
GR= Grab Sample
EOT= End of Testpit
OVM = Organic Vapour Measurement

TEST PIT BOREHOLE LOGS
Cambridge Bay, Nunavut

Date:	29-Aug-09	**Easting:**	493311		SAMPLES		
Logged by:	JK	**Northing:**	7666612				
Method:	Shovel & loader			**Test Pit: 2-09-TP1**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)	Description						
0.0-0.05	TOPSOIL - bushes, grasses, lichens, moss; SAND - greyish brown, medium-grained with some gravel				-	2-09-TP1-1 PCB	Organic layer at 0.4 m appears to be historical top of ground; Test pit was deepened by loader
0.05-0.4	SAND - dark grey/brown medium-grained with some silt and gravel; lenses of reddish-brown medium-grained sand; sample taken - 2-09-TP1-1				0	2-09-TP1-2 PHC, Metals, VOC	
0.4-0.5	ORGANIC - black sand with some gravel; sample taken - 2-09-TP1-2				0		
	EOT @ 0.5 m						

Date:	29-Aug-09	**Easting:**	493293		SAMPLES		
Logged by:	JK	**Northing:**	7666596				
Method:	Shovel & loader			**Test Pit: 2-09-TP2**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)	Description					2-09-TP2-2	
0.0-0.05	TOPSOIL - bushes, grasses, lichens, moss				-	PHC, Metals,	
0.05-0.3	SAND - light grey, medium-grained with silt, some clay; sampled between 0.2-0.3 m (2-09-TP2-1)				0	PCB/Pesticides,	
0.3-0.5	SAND - grey, fine-grained, with silt and clay, moist; sampled between 0.3-0.5 m (2-09-TP2-2)				0	VOC, PAH	
	EOT @ 0.5 m						

Date:	29-Aug-09	**Easting:**	493281		SAMPLES		
Logged by:	JK	**Northing:**	7666624				
Method:	Shovel & loader			**Test Pit: 2-09-TP3**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)	Description					2-09-TP3-1	
0.0-0.1	SAND - light brown with gravel				-	PHC, Metals, PCB,	
0.1-0.7	SAND - lenses of light brown sand with gravel & grey clay with sand; samples taken from each lense between 0.1-0.7 m (2-09-TP3-1 & 2-09-TP3-2)				0	VOC, PAH	
	EOT @ 0.7 m						

Date:	29-Aug-09	**Easting:**	493252		SAMPLES		
Logged by:	JK	**Northing:**	7666600				
Method:	Loader			**Test Pit: 2-09-TP4**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)	Description						Monitoring well installed w/ filter sock over screen Riser = 0.75 m Screen = 0.75 m
0.0-0.15	SILT/CLAY - light brown, trace fine sand, damp/moist, rootlets				-	PHC, Metals, VOC	
0.15-0.55	SAND - light brown, with gravel, trace clay, damp/moist				-		
0.55-0.9	GRAVEL - light brown, sandy, wet at 0.7 m; sampled (2-09-TP4)				0		
	EOT @ 0.9 m						

Date:	29-Aug-09	**Easting:**	494885		SAMPLES		
Logged by:	JS/ET	**Northing:**	7665891				
Method:	Trowel			**Test Pit: 2-09-TP5**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)	Description						
0.0-0.4	SHALE - weathered chips and gravel, grey, dry				-	PHC, Metals, VOC	
0.4-0.6	SAND - silt and weathered shale, damp, moist, trace organic silt; sampled (2-09-TP5-1 & GR-2)				-		
	EOT @ 0.6 m						

Date:	29-Aug-09	**Easting:**	494736		SAMPLES		
Logged by:	JS/ET	**Northing:**	7666019				
Method:	Trowel			**Test Pit: 2-09-TP6**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)	Description						
0.0-0.2	SHALE - weathered chips and gravel, grey, dry				-	PHC, Metals, VOC	
0.2-0.6	SAND - light brown with silt and weathered shale, damp/moist; sampled (2-09-TP6-1)				-		
	EOT @ 0.6 m						

Notes:
GR= Grab Sample
EOT= End of Testpit
OVM = Organic Vapour Measurement

TEST PIT BOREHOLE LOGS
Cambridge Bay, Nunavut

Date:	29-Aug-09	**Easting:**	494623		SAMPLES		
Logged by:	JS/ET	**Northing:**	7666122				
Method:	Trowel			**Test Pit: 2-09-TP7**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)		Description					
0.0-0.2	SHALE - weathered chips and gravel, gret, dry				-	PHC, Metals, VOC	
0.2-0.4	SAND - light brown with silt and weathered shale, damp/moist; sampled (2-09-TP7-1)				-		
	EOT @ 0.4 m						

Date:	29-Aug-09	**Easting:**	494467		SAMPLES		
Logged by:	JS/ET	**Northing:**	7666255				
Method:	Trowel			**Test Pit: 2-09-TP8**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)		Description					
0.0-0.3	SHALE - weathered with chips and gravel, grey, dry				-	PHC, Metals,	
0.3-0.5	SHALE and trace sand, silt, damp/moist; sampled (2-09-TP8-1)				-	Pesticides	
	EOT @ 0.5 m						

Date:	29-Aug-09	**Easting:**	494311		SAMPLES		
Logged by:	JS/ET	**Northing:**	7666402				
Method:	Trowel			**Test Pit: 2-09-TP9**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)		Description					
0.0-0.2	SHALE - weathered chips and gravel, grey, dry				-	PHC, Metals,	
0.2-0.4	SHALE chips and gravel with sand and silt, moist; sampled (2-09-TP9-1)				-	PCBs, PAH	
	EOT @ 0.4 m						

Date:	29-Aug-09	**Easting:**	494089		SAMPLES		
Logged by:	JS/ET	**Northing:**	7666523				
Method:	Trowel			**Test Pit: 2-09-TP10**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 2 - Shoreline Disposal Area**						
Depth (m)		Description					
0.0-0.2	SHALE - weathered chips and gravel, grey, dry				-	PHC, Metals, VOC	
0.2-0.4	SILT - light brown, some sand, shale, damp/moist; sampled (2-09-TP10-1)				0		
	EOT @ 0.4 m						

Date:	29-Aug-09	**Easting:**	493531		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666776				
Method:	Backhoe			**Test Pit: 3-09-1**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 3 - Former Fire Training Area**						
Depth (m)		Description					
0.0-0.45	SAND and gravel, some silt, grey, loose, clay, boulder at 0.45 m; sampled (3-09-1-1 & 3-09-DUP-1				0	PHC, VOC, PAH, PFOS	
	EOT @ 0.45 m - boulder						

Date:	29-Aug-09	**Easting:**	493554		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666787				
Method:	Backhoe			**Test Pit: 3-09-2**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 3 - Former Fire Training Area**						
Depth (m)		Description					
0.0-0.5	SAND and gravel, brown, some organics, silty, loose, moist; sampled (3-09-2-1)				0	3-09-2-1 Sieve	
0.5-1.5	SILT - some gravel, grey, stiff, dry; sampled (3-09-2-2)				0	3-09-2-2 PHC	
	EOT @ 1.5 m						

Date:	29-Aug-09	**Easting:**	493560		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666757				
Method:	Backhoe			**Test Pit: 3-09-3**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 3 - Former Fire Training Area**						
Depth (m)		Description					
0.0-0.5	SAND and gravel, brown, silt, some organics, loose, moist; sampled (3-09-3-1)				0	3-09-3-2	
0.5-1.5	SANDY SILT, brown, some gravel, stiff, dry; sampled (3-09-3-2)				0	PHC, PFOS	
	EOT @ 1.5 m						

Notes:
GR= Grab Sample
EOT= End of Testpit
OVM = Organic Vapour Measurement

TEST PIT BOREHOLE LOGS
Cambridge Bay, Nunavut

Date:	29-Aug-09	**Easting:**	493567		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666774				
Method:	Backhoe			**Test Pit: 3-09-4M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 3 - Former Fire Training Area**						
Depth (m)	Description						
0.0-0.5	SAND and gravel, brown, some organics, some silt, moist; sampled (3-09-4M-1)				15	3-09-4M-2 PHC, Sieve	Monitoring well installed Riser: 0-0.6 m Screen: 0.6-2.1 m
0.5-2.0	SANDY SILT - grey, some gravel, moist, stiff, strong hydrocarbon odour and staining, sampled (3-09-4M-2)				5	3-09-4M-3 PHC, PCB, VOC, PAH, PFOS	
2.0-2.1	SANDY SILT - grey, some gravel, moist, stiff, strong hydrocarbon odour and staining, wet at 2 m; sampled (3-09-4M-3)				150		
	EOT @ 2.1 m						

Date:	29-Aug-09	**Easting:**	493599		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666746				
Method:	Backhoe			**Test Pit: 3-09-5M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 3 - Former Fire Training Area**						
Depth (m)	Description						
0.0-0.5	SAND and gravel, brown, some organics, trace silt, loose, moist; sampled (3-09-5M-1)				0	3-09-5M-2 PHC	Monitoring well installed Riser: 0-0.6 m Screen: 0.6-2.1 m
0.5-1.0	SAND - medium-grained, light brown, some gravel, very loose, moist, slight hydrocarbon odour; sampled between 0.5-1.0 m (3-09-5M-2)				15		
1.0-2.1	CLAY/SILT - grey, some gravel, stiff, moist to wet at 1.5 m; sampled (3-09-5M-3)				0		
	EOT @ 2.1 m - permafrost						

Date:	29-Aug-09	**Easting:**	493591		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666730				
Method:	Backhoe			**Test Pit: 3-09-6M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 3 - Former Fire Training Area**						
Depth (m)	Description						
0.0-0.5	SAND and gravel, brown, loose, moist; sampled (3-09-6M-1)				0	3-09-6M-2 PHC, PFOS	Monitoring well installed Riser: 0-0.3 m Screen: 0.3-1.8 m
0.5-1.0	SILTY SAND - brown, gravel, loose, moist; sampled (3-09-6M-2)				0	3-09-DUP-2 PHC	
1.0-2.0	SILTY SAND - brown, some gravel, loose, wet @ 1.5 m, hydrocarbon staining and odour @ 1.5 m; sampled (3-09-6M-3 & 3-09-DUP-2)				0		
	EOT @ 2.0 m						

Date:	30-Aug-09	**Easting:**	495240		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666203				
Method:	Backhoe			**Test Pit: 4A-09-1M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 4 - Former F.H. Ross Tank Farm**						
Depth (m)	Description						Monitoring well installed Riser: 0-0.85 m Screen: 0.85-1.6 m
0.0-1.6	SILTY SAND - brown, some gravel, moist, loose, hydrocarbon staining & odour; sampled at 0.5-1 m (4A-09-1M-1)				0	PHC	
	EOT @ 1.6 m - permafrost						

Date:	30-Aug-09	**Easting:**	495243		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666189				
Method:	Backhoe			**Test Pit: 4A-09-2M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 4 - Former F.H. Ross Tank Farm**						
Depth (m)	Description						Monitoring well installed Riser: 0-0.75 m Screen: 0.75-1.5 m
0.0-1.5	SILTY SAND and gravel, brown, loose, water @ 0.5 m, organic layer observed @ 0.5 m (0.1 m thick); sampled between 0.6-1 m (4A-09-2M-1 & 4A-09-DUP-1)				0	PHC	
	EOT @ 1.5 m - permafrost						

Date:	30-Aug-09	**Easting:**	495230		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666211				
Method:	Backhoe			**Test Pit: 4A-09-3M**	RKI (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport						
Work area:	**APEC 4 - Former F.H. Ross Tank Farm**						
Depth (m)	Description						Monitoring well installed Riser: 0-0.5 m Screen: 0.5-1.3 m
0.0-1.3	SILTY SAND and gravel, grey, moist, loose, hydrocarbon staining and colour from 0.5 m to 1.3 m; sampled between 0.5-1 m (4A-09-3M-1)				240	PHC, Metals, VOC, PAH	
	EOT @ 1.3 m - permafrost						

Notes:
GR= Grab Sample
EOT= End of Testpit
OVM = Organic Vapour Measurement

TEST PIT BOREHOLE LOGS
Cambridge Bay, Nunavut

Date:	30-Aug-09	**Easting:**	495217		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666198		RKI (ppm)	Analysis	NOTES/COMMENT
Method:	Backhoe			**Test Pit: 4A-09-4**			
Location:	Cambridge Bay Airport						
Work area:	**APEC 4 - Former F.H. Ross Tank Farm**						
Depth (m)	Description						
0.0-2.0	SAND & GRAVEL, light brown, loose, some boulders, dry, strong hydrocarbon staining and odour below 0.5 m; sampled @ 2.0 m (4A-09-4-1)				1150	PHC, Metals, VOC, PAH	
	EOT @ 2.0 m						

Date:	30-Aug-09	**Easting:**	495214		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666186		RKI (ppm)	Analysis	NOTES/COMMENT
Method:	Backhoe			**Test Pit: 4A-09-5**			
Location:	Cambridge Bay Airport						
Work area:	**APEC 4 - Former F.H. Ross Tank Farm**						
Depth (m)	Description						
0.0-1.5	SAND & GRAVEL - light brown, loose, dry, some boulders, moderate hydrocarbon staining between 0.5-1.5 m; sampled @ 1.5 m (4A-09-5-1)				420	PHC, Metals, VOC, PAH	
	EOT @ 1.5 m						

Date:	30-Aug-09	**Easting:**	495235		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666216		RKI (ppm)	Analysis	NOTES/COMMENT
Method:	Backhoe			**Test Pit: 4A-09-6**			
Location:	Cambridge Bay Airport						
Work area:	**APEC 4 - Former F.H. Ross Tank Farm**						
Depth (m)	Description						
0.0-1.8	SAND & GRAVEL - light brown, some silt, some boulders, dry, hydrocarbon staining and odour @ 1 m; sampled between 0.5-1 m (4A-09-6-1) and between 1-1.5 m (4A-09-6-2)				0	4A-09-6-1 - PHC 4A-09-6-2 - PHC	
	EOT @ 1.8 m						

Date:	30-Aug-09	**Easting:**	495245		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666212		RKI (ppm)	Analysis	NOTES/COMMENT
Method:	Backhoe			**Test Pit: 4A-09-7**			
Location:	Cambridge Bay Airport						
Work area:	**APEC 4 - Former F.H. Ross Tank Farm**						
Depth (m)	Description						
0.0-1.8	SAND & GRAVEL - light brown, some silt, medium loose, dry, thin organic layer between 1-1.1 m; sampled @ 1.5 m (4A-09-7-1)				0	PHC	
	EOT @ 1.8 m						

Date:	30-Aug-09	**Easting:**	495205		SAMPLES		
Logged by:	VDC/ET	**Northing:**	7666175		RKI (ppm)	Analysis	NOTES/COMMENT
Method:	Backhoe			**Test Pit: 4A-09-8**			
Location:	Cambridge Bay Airport						
Work area:	**APEC 4 - Former F.H. Ross Tank Farm**						
Depth (m)	Description						
0.0-1.7	SAND & GRAVEL - brown, some silt, some boulders, loose, dry, hydrocarbon staining and odour below 1 m; sampled between 1-1.7 m (4A-09-8-1)				60	PHC	
	EOT @ 1.7 m						

Date:	30-Aug-09	**Easting:**	495335		SAMPLES		
Logged by:	JS/JK	**Northing:**	7666410		RKI (ppm)	Analysis	NOTES/COMMENT
Method:	Backhoe			**Test Pit: 5-09-TP1**			
Location:	Cambridge Bay Airport						
Work area:	**APEC 5 - Former AST north of maintenance building**						
Depth (m)	Description						
0.0-0.2	SANDY GRAVEL - trace clay, light grey/brown, dry, compacted				-	5-09-TP1-1 PHC, Metals, VOC, PAH	
0.2-0.5	SANDY GRAVEL - light brown, dry, with cobbles and shale fragments; sampled (5-09-TP1-1)				0		
0.5-0.6	ORGANICS - dark brown, dry; sampled (5-09-TP1-2)				0		
0.6-1.4	CLAY - grey, damp/moist, with coarse sand and cobbles; sampled (5-09-TP1-3)				0		
	EOT @ 1.4 m						

Notes:
GR= Grab Sample
EOT= End of Testpit
OVM = Organic Vapour Measurement

TEST PIT BOREHOLE LOGS
Cambridge Bay, Nunavut

Date:	30-Aug-09	**Easting:**	495344	SAMPLES		
Logged by:	JS/JK	**Northing:**	7666402			
Method:	Backhoe		**5-09-TP2**	OVM (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport					
Work area:	**APEC 5 - Former AST north of maintenance building**					
Depth (m)	Description					
0.0-0.2	SANDY GRAVEL - trace clay, light grey/brown, dry, compacted			-		
0.2-0.5	SANDY GRAVEL - light brown with cobbles and shale fragments; sampled (5-09-TP2-1)			0	5-09-TP2-1	
0.5-0.7	Lenses of organics, dark brown, dry; sampled (5-09-TP2-2)			5	PHC, Metals,	
0.7-1.1	CLAY - grey, damp, with coarse sand and cobbles; sampled (5-09-TP2-3)			30	VOC, PAH	
1.1-1.5	COBBLES/BEDROCK - grey, dry, with sand					
	EOT @ 1.5 m					

Date:	30-Aug-09	**Easting:**	495352	SAMPLES		
Logged by:	JS/JK	**Northing:**	7666408			
Method:	Backhoe		**Test Pit: 5-09-TP3**	OVM (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport					
Work area:	**APEC 5 - Former AST north of maintenance building**					
Depth (m)	Description					
0.0-0.2	SANDY GRAVEL - light grey/brown, trace clay, dry, compacted			-		
0.2-0.5	SANDY GRAVEL - light brown, dry, with cobbles and shale fragments, hydrocarbon odour; sampled (5-09-TP3-1)			0	5-09-TP3-1	Monitoring well installed
0.5-0.6	ORGANICS - dark brown; sampled (5-09-TP3-2)			0	PHC, Metals,	Riser: 0-0.25 m
0.6-1.5	CLAY - light grey/brown, damp, with coarse sand and cobbles; sampled (5-09-TP3-3)			0	VOC, PAH	Screen: 0.25-2.06 m
1.5-2.2	SHALE - grey, weathered with some clay and trace coarse sand, dry			-		
	EOT @ 2.2 m					

Date:	30-Aug-09	**Easting:**	495343	SAMPLES		
Logged by:	JS/JK	**Northing:**	7666417			
Method:	Backhoe		**Test Pit: 5-09-TP4**	OVM (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport					
Work area:	**APEC 5 - Former AST north of maintenance building**					
Depth (m)	Description					
0.0-0.3	SANDY GRAVEL - light grey/brown, trace clay, dry, compacted			-		
0.3-1.0	SANDY GRAVEL - light brown, with cobbles and shale fragments, dry; sampled (5-09-TP4-1)			5	5-09-TP4-3	
1.0-1.2	ORGANICS - dark brown; sampled (5-09-TP4-2)			10	PHC, Metals,	
1.2-1.8	SILT TILL - light brown, travel clay, gravel and sand, damp; sampled (5-09-TP4-3)			-	VOC, PAH	
1.8-2.2	SHALE - grey, weathered shale and bedrock, dry with trace clay and coarse sand			-		
	EOT @ 2.2 m					

Date:	30-Aug-09	**Easting:**	495305	SAMPLES		
Logged by:	JS/JK	**Northing:**	7666327			
Method:	Backhoe		**Test Pit: 6-09-TP1**	OVM (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport					
Work area:	**APEC 6 - Beside maintenance building**					
Depth (m)	Description					
0.0-0.1	GRAVELLY SAND with rootlets, light grey/brown; sampled (6-09-TP1-1)			0	6-09-TP1-3	Monitoring well installed
0.1-0.2	TOPSOIL - organic silt, dark brown, damp, rootlets; sampled (6-09-TP1-2)			0	PHC, Metals,	Riser: 0-0.5 m
0.2-1.5	SANDY SILT with fractured shale and boulders, wet at 0.8 m (6-09-TP1-3)			0	VOC, PAH	Screen: 0.5-1.876 m
	EOT @ 1.5 m					

Date:	30-Aug-09	**Easting:**	493780	SAMPLES		
Logged by:	JS/JK	**Northing:**	7667081			
Method:	Backhoe		**Test Pit: BG-1**	OVM (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport					
Work area:	**Approx. 1 km west of airport terminal building on main road**					
Depth (m)	Description					
0.0-0.15	PEAT - dark brown and fibrous, spongy, damp, cold			-	Metals	
0.15-0.6	SANDY SILT - light brown, with gravel and weathered shale at 0.5 m; sampled at 0.3 m (BG-1)			-		
	EOT @ 0.6 m					

Date:	30-Aug-09	**Easting:**	493497	SAMPLES		
Logged by:	JS/JK	**Northing:**	7667026			
Method:	Backhoe		**Test Pit: BG-2**	OVM (ppm)	Analysis	NOTES/COMMENT
Location:	Cambridge Bay Airport					
Work area:	**Approx. 2 km west of airport terminal building, 500 m west of end of runway**					
Depth (m)	Description					
0.0-0.1	PEAT - dark brown, fibrous, spongy, damp			-	Metals	
0.1-0.5	SAND - light brown, medium-grained with gravel and weathered shale below 0.45 m; sampled @ 0.4 cm (BG-2); duplicate sample (BG-3)			-		
	EOT @ 0.5 m					

Notes:
GR= Grab Sample
EOT= End of Testpit
OVM = Organic Vapour Measurement

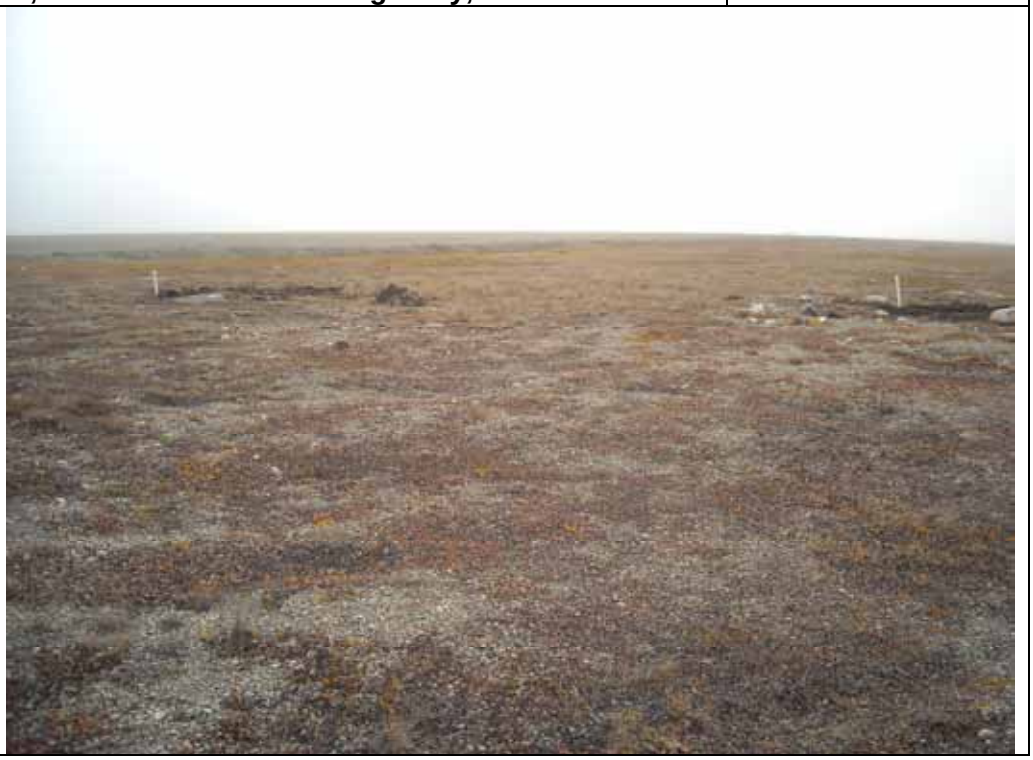
APPENDIX D

Site Photos

FRANZ ENVIRONMENTAL INC.
CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES

PHOTOGRAPHIC LOG

APEC 1 – Screening Plant; Phase I/II ESA Cambridge Bay, Nunavut	1748-0901
Photo ID: 1	
Date: August 29, 2009	
Direction: N	
Description: Excavation of test pit 1-09-2M in APEC 1	

APEC 1 – Screening Plant; Phase I/II ESA Cambridge Bay, Nunavut	1748-0901
Photo ID: 2	
Date: August 29, 2009	
Direction: NE	
Description: Monitoring wells 1-09-2M and 1-093M at APEC 1	

APEC 2 – Shoreline Disposal Area; Phase I/II ESA Cambridge Bay, Nunavut	**1748-0901**
Photo ID: 3	
Date: September 2, 2009	
Direction: S	
Description: Location of test pit 2-09TP-5 at APEC 2.	

APEC 2 – Shoreline Disposal Area; Phase I/II ESA Cambridge Bay, Nunavut	**1748-0901**
Photo ID: 4	
Date: September 2, 2009	
Direction: S	
Description: Location of test pit 2-09TP-5 at APEC 2.	

APEC 3 – Former Fire Training Area; Phase I/II ESA Cambridge Bay, Nunavut	**1748-0901**
Photo ID: 5	
Date: August 29, 2009	
Direction: S	
Description: Excavation of test pit 3-09-2 at APEC 3	

APEC 3 – Former Fire Training Area; Phase I/II ESA Cambridge Bay, Nunavut	**1748-0901**
Photo ID: 6	
Date: August 29, 2009	
Direction: NE	
Description: Installation of monitoring well 3-09-4M at APEC 3	

APEC 4 – Former F.H. Ross Tank Farm; Phase I/II ESA Cambridge Bay, Nunavut	**1748-0901**
Photo ID: 7	
Date: August 30, 2009	
Direction: N	
Description: View of APEC 4, with the airport terminal building in the background	

APEC 4 – Former F.H. Ross Tank Farm; Phase I/II ESA Cambridge Bay, Nunavut	**1748-0901**
Photo ID: 8	
Date: August 30, 2009	
Direction: N	
Description: Excavation of test pit 4-09-7 at APEC 4	

APEC 5 – Former AST north of T-5; Phase I/II ESA Cambridge Bay, Nunavut	**1748-0901**
Photo ID: 9	
Date: August 30, 2009	
Direction: NE	
Description: Monitoring well 5-09-MW3 at APEC 5	

Background Sampling ; Phase I/II ESA Cambridge Bay, Nunavut	**1748-0901**
Photo ID: 10	
Date: August 30, 2009	
Direction: E	
Description: Test pit at background location BG-1	

APPENDIX E

Health and Safety Plan

SITE SAFETY PLAN

SAFETY POLICY STATEMENT

All operations will comply with all applicable Territorial guidelines and other specified safety protocols and/or operating procedure specified by the site owner and/or operator. Operations will be conducted in a safe and professional manner. No site work will be undertaken prior to the safety meeting, which will be conducted on the site prior to commencement of work.

Site Name	Cambridge Bay Airport
Site Location	Located 3km west of the Hamlet of Cambridge Bay.
Site Description	Airport
Owner/Operator	GNT

SITE LOCATION MAP ATTACHED

LOCAL EMERGENCY AND PROJECT TELEPHONE NUMBERS

EMERGENCY NUMBERS	**Name**	**Telephone Number**
Hospital	Health Centre	983-2531
Ambulance		
Police	RCMP	983-1111
Fire		983-2222
UTILITY EMERGENCY NUMBERS		
Site Health and Safety Officer	Viviane Dubois Cote'	Office: (604) 632-9941 Cell: (604)908-6286
Project Manager Project Manager (Back-up)	James Smith Steve Livingstone	Office: (604) 632-9941 Cell: (778) 883-3795 Office: (613) 721-0555
Site Contacts	Micheal Molinski	204-984-0440
Client Contacts	Raman Birk	Tel 604-775-6810 Cel. 604-317-2750
Regulatory Agency	Env. Canada / DFO	
Spills Hotline		403-920-8130

SITE SAFETY PLAN

EMERGENCY ROUTES

Route from airport to health centre

Airport terminal building – head north from the airport terminal building along Mitkit Street for 1.6km. Turn L onto Kamotik Road for approximately 100m. Turn Right onto Omingmak Street and travel about 40m to the health centre.

HOSPITAL LOCATION MAP ATTACHED

PERSONAL PROTECTIVE EQUIPMENT

Hard hat	☐	Steel toed boots	☐
Safety glasses	☐	Visible vest	☐
Hearing protection	☐		

SAFETY EQUIPMENT

Fire extinguisher	☐	First aid kit	☐
Eye wash	☐	Kill switch	

Note: Fire Extinguisher and First Aid Kit supplied by Drilling/Excavating Contractor.

POTENTIAL CONTAMINANTS OF CONCERN

Petroleum hydrocarbons, solvents.
Inorganic contaminants may include zinc, chromium, copper, lead, arsenic, aluminum and
mercury.

Hazard	dermal contact, and inhalation
Mitigation	Wear the appropriate protective equipment and avoid skin contact with soil samples.

SCOPE OF WORK AND HEALTH AND SAFETY RESPONSIBILITY

Scope of Work

To obtain representative samples of soil, water, sediment, and vegetation in suspect areas. To determine the source, type, nature and extent (vertical & horizontal) of contamination or contaminant plumes in soil, surface/groundwater and vegetation.

Responsibilities

The Site Health and Safety Officer will implement the Plan. He/She has the authority to stop work or prohibit any personnel from working on the site at any time for not complying with any aspect of the Plan.

The Sub-contractor Field Supervisor is directly responsible for implementing the Plan for his/her own employees.

Each person on the site has responsibility for their own health and safety, as well as, assisting others in carrying out the Plan. Any person observed to be in violation of the Plan should be assisted in complying with the Plan, or reported to the Site Health and Safety Officer or the Subcontractor Field Supervisor.

Any site personnel may shut down field activities if there is a real or perceived immediate danger to life or health.

SITE HAZARDS AND MITGATION

TYPE OF HAZARD	DESCRIPTION OF HAZARD	MITIGATION	YES	NO
Overhead Hazards	Overhead power lines	locate and ensure equipment maintains safe distance from all overhead hazards	☐	❑
Underground Hazards	Water and storm lines and High Pressure Gas and Fluid lines	Do not excavate until all utilities have been located	☐	❑
Equipment Hazards	Trucks	Stay out of equipment work zone or inform the operator before entering work zone.	☐	❑
Drilling Hazards	Utilities and u/g fuel tanks.	Conduct utility locates prior to drilling	☐	❑
Excavation Hazards	Underground and overhead utilities	Conduct utility locates prior to drilling	☐	❑
Machinery Hazards	Drilling/Excavating Equipment	Stay out of equipment work zone or inform the operator before entering work zone. Discuss hand signals and approach protocols with operator.	☐	❑
Heat Exposure	Warm temperatures are not very likely during the project duration.	If temperatures are warm, use sunscreen and drink fluids to prevent dehydration.	❑	☐
Cold Exposure	Cold temperatures or raining	Dress appropriately	☐	❑
Electrical Hazards	Underground and overhead utilities	Conduct utility locates prior to drilling	☐	❑
Oxygen Deficiency	Not expected		❑	☐
Noise Hazards	Excavating Equipment	Wear proper personal protective equipment and/or maintain a safe distance from operating equipment.	☐	❑
Ionizing Radiation	Not expected		❑	☐
Non-Ionizing Radiation	Not expected		❑	☐
Fire/Explosion Hazards	Drilling abandoned fuel tanks, or pipelines.	Conduct utility locates prior to drilling	☐	❑

SITE SAFETY PLAN

TYPE OF HAZARD	DESCRIPTION OF HAZARD	MITIGATION	YES	NO
Biological Hazards	Not expected		❑	☐
Chemical Hazards (MSDS if available)	Petroleum Hydrocarbons, PAHs, Metals	Wear appropriate PPE, nitrile gloves	☐	❑
Water Hazards	Not expected	Wear appropriate PPE while working on or near water, including personal floatation device	❑	☐
Holes/Ditches	Open excavations	Mark clearly and avoid working in close proximity. Do not enter excavations over 1.5 m in depth.	☐	❑
Steep Grades	Rocks, debris, piping, steep terrain	Walk slowly and steadily	☐	❑
Slippery Surfaces	Snow and ice	Walk slowly and steadily	☐	❑
Uneven Terrain	Piping and associated infrastructure	Walk slowly and steadily	☐	❑
Unstable Surfaces		Walk slowly and steadily	☐	❑
Elevated Work Surfaces	Excavator working on elevated surfaces	Do not exceed mechanical limits of rig. Maintain a safe distance from equipment during operation.	☐	❑
Shoring/Scaffolding	Not expected		❑	☐
Public Risk	Workers moving around site	Watch for public entering the work site and warm of dangers.	☐	❑
Vehicular	Moving traffic and rig	Watch for traffic at all times, wear PPE, avoid excavating in high traffic areas	☐	❑
Groundwater well installation	Pinch points using slide hammer	Wear gloves while installing vapour probes. Take care that slide hammer is in good condition.	☐	❑

POTENTIAL WASTE GENERATION
Waste Generation (Types and Quantities Expected) **Not expected**

TYPE	QUANTITY	TYPE	QUANTITY	TYPE	QUANTITY
N/A	N/A	N/A	N/A	N/A	N/A

Other (describe)

N/A

CHARACTERISTICS EXPECTED
Waste Generation (Types and Quantities Expected)

TYPE	QUANTITY	TYPE	QUANTITY
Corrosive	N/A		
Reactive	N/A		
Toxic	N/A		

Other (describe)

PACKAGING REQUIREMENT FOR WASTE MATERIAL EXPECTED

Open head 55 gallon drum	N/A
Closed head 55 gallon drum	N/A
Overpack drum	N/A
Baker tanks	N/A
Lined waste bins	N/A
Other (Specify)	N/A

DISPOSAL AND/OR TREATMENT METHODS PROPOSED

Soil from test pits is to be replaced in test pit.
Groundwater (if collected) will be left in test pit.

The person signing will be responsible for characterizing, packaging, labelling, storing and

disposing of suspected or known waste
Signature

RISKS FROM THE PUBLIC

This section is for any personal risks from the public at secluded site, high profile sites etc.

Work areas will be cordoned off and will be restricted to authorized personnel.

UNDERGROUND AND OVERHEAD UTILITIES AND INSTALLATIONS

Utility locate undertaken	❑ Yes	❑ No	Information attached	❑ Yes	☐ No
Private locate undertaken	❑ Yes	❑ No	Information attached	❑ Yes	☐ No

Sewer mains	❑ Yes	❑ No	❑ n/a
Water mains	❑Yes	❑ No	❑ n/a
Underground telecommunications and telephone utilities	❑ Yes	❑ No	❑ n/a
Cable utilities	❑ Yes	❑ No	❑ n/a
Electrical utilities	❑ Yes	❑ No	❑ n/a
Gas mains	❑ Yes	❑ No	❑ n/a
Steam heat mains	❑ Yes	❑ No	❑ n/a
Transit utilities	❑ Yes	❑ No	❑ n/a
Street lights and traffic signals incl. connections and appurtenances	❑ Yes	❑ No	❑ n/a
All pipes, cables, valves, and all facilities associated	❑ Yes	❑ No	❑ n/a
Equipment incidental thereto located in the roads	❑ Yes	❑ No	❑ n/a

Location cleared by Site Owner/Operator ❑ Yes ❑ No☐

Name of Locator	N/A
Hazard	
Mitigation	Do not drill/excavate where utilities are located (maintain proper
clearance from utilities).	

SITE SAFETY PLAN

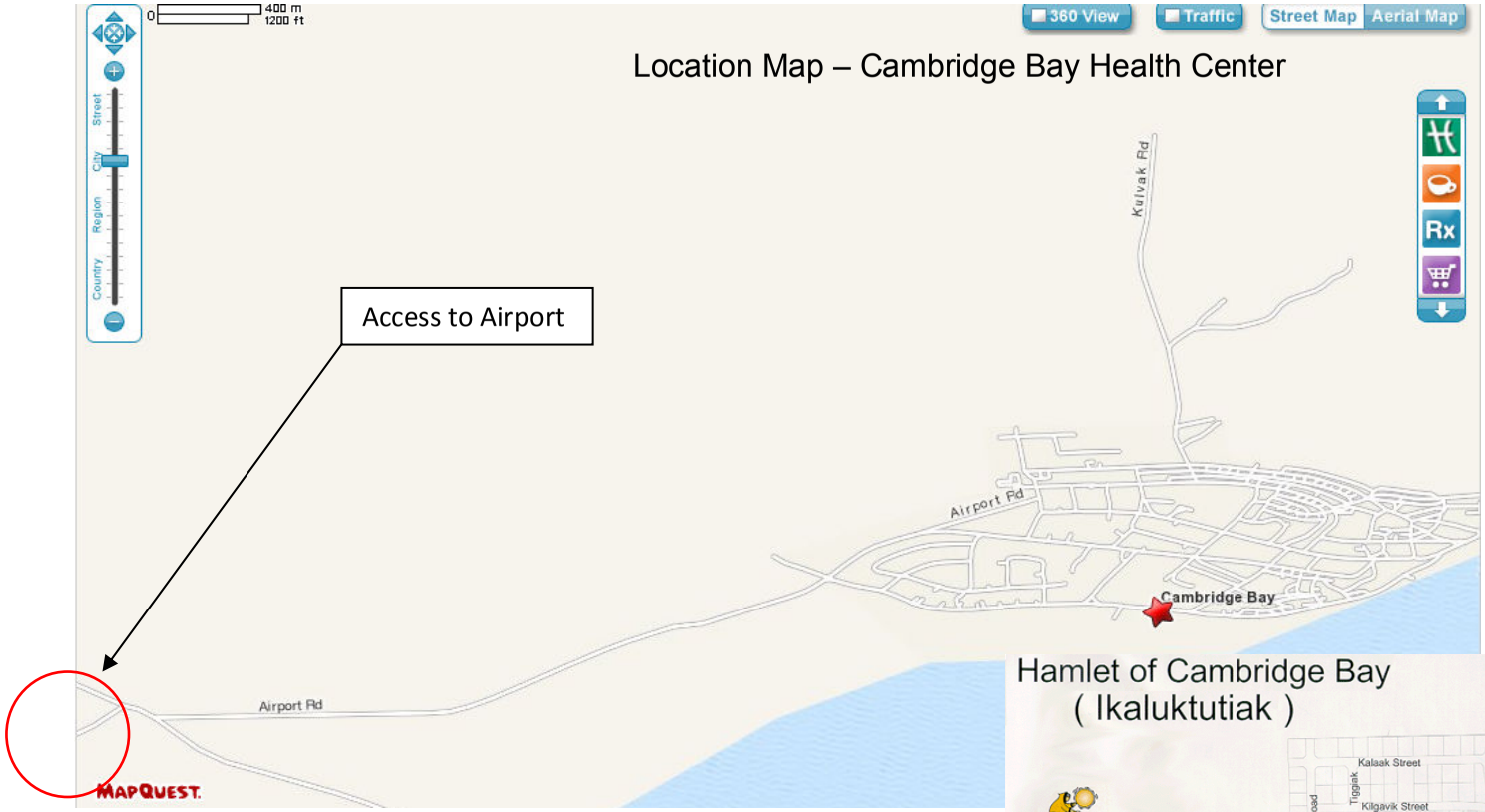
SITE SAFETY PLAN REVIEWED BY

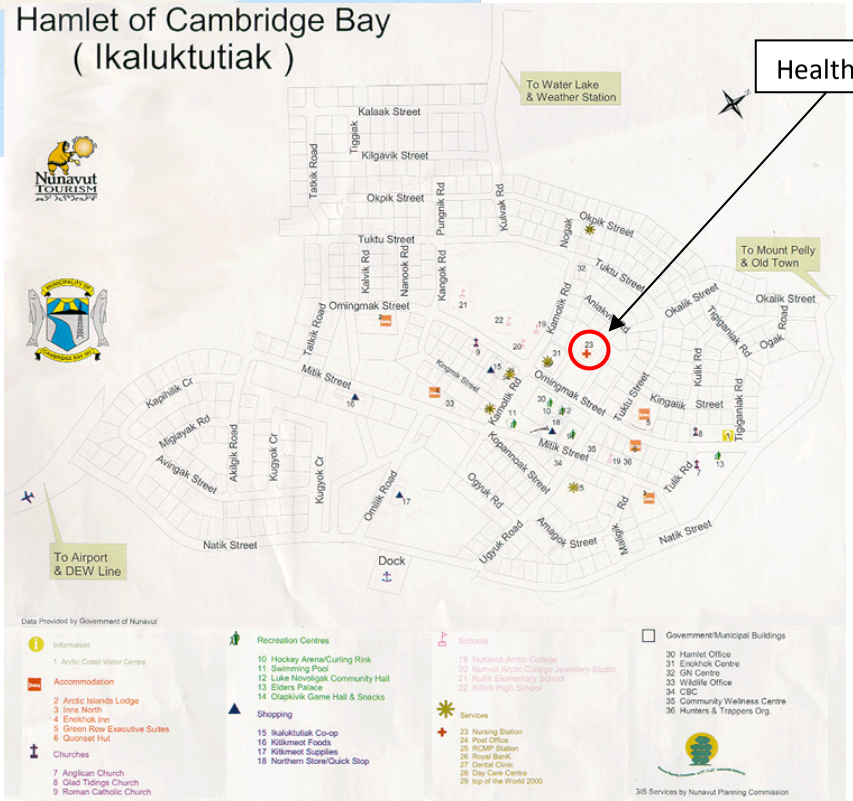
Project Manager	Date
Senior Review	Date

SIGNATURES OF AGREEMENT

By signing below, I have read and understood the safety policy statement and site hazards and mitigation as outlined above

FRANZ . Representative	Date
Site Owner/Operator Representative	Date
Contractor	Date
Contractor Representative	Date
Contractor Representative	Date
Contractor Representative	Date
Contractor Representative	Date


Location Map – Cambridge Bay Health Center
360 View
Traffic
Street Map
Aerial Map
Access to Airport
Kuivak Rd
Airport Rd
Cambridge Bay
Airport Rd
MAPQUEST


Hamlet of Cambridge Bay
(Ikaluktutiak)
Health Center
To Water Lake
& Weather Station
To Mount Pelly
& Old Town
To Airport
& DEW Line
Dock
Kalaak Street
Kilgavik Street
Okpik Street
Tuktu Street
Omingmak Street
Milik Street
Natik Street
Kingalik Street
Okalik Street
Tigganiak Rd
Ogak Road
Tulik Rd
Kulik Rd
Data Provided by Government of Nunavut
Recreation Centres
10 Hockey Arena/Curling Rink
11 Swimming Pool
12 Luke Novoligak Community Hall
13 Elders Palace
14 Olapkivik Game Hall & Snacks
Shopping
15 Ikaluktutiak Co-op
16 Kitikmeot Foods
17 Kitikmeot Supplies
18 Northern Store/Quick Stop
Government/Municipal Buildings
30 Hamlet Office
31 Enokhok Centre
32 GN Centre
33 Wildlife Office
34 CBC
35 Community Wellness Centre
36 Hunters & Trappers Org.

APPENDIX F

Certified Laboratory Reports

Your Project #: 1748-0901
Site: CAMBRIDGE BAY
Your C.O.C. #: 80795, 80794, 80792, 80793, 80791, 80785, 80786, 80787

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2009/09/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A947822
Received: 2009/09/02, 15:50

Sample Matrix: Soil
Samples Received: 47

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/MTBE Soil LH, VH, F1 SIM/MS	10	2009/09/04	2009/09/05	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	8	2009/09/04	2009/09/06	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	1	2009/09/04	2009/09/07	BRN-SOP-0304 R10.0	EPA SW846 8260B
Volatile F1-BTEX	1	N/A	2009/09/07		
Volatile F1-BTEX	17	N/A	2009/09/08		
Volatile F1-BTEX	21	N/A	2009/09/09		
Volatile F1-BTEX	3	N/A	2009/09/10		
CCME Hydrocarbons (F2-F4 in soil)	26	2009/09/04	2009/09/08	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	11	2009/09/04	2009/09/09	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	5	2009/09/04	2009/09/11	BRN SOP-00342 R9.0	CCME Soil Tier 1
Ethylene, Di, Tri & Tetraethylene glycol	1	2009/09/09	2009/09/10	BRN SOP-00307R6	Based on EPA 8015B
Elements by ICPMS (total)	8	2009/09/08	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	17	2009/09/08	2009/09/10	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	2	2009/09/09	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Particulate Mesh 200 @	3	N/A	2009/09/08	NA	NA
Moisture	42	N/A	2009/09/05	BRN SOP-00321 R5.0	Ont MOE -E 3139
PAH in Soil by GC/MS (SIM)	5	2009/09/04	2009/09/05	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	3	2009/09/04	2009/09/06	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	1	2009/09/04	2009/09/08	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	7	2009/09/04	2009/09/09	BRN SOP-00332 R9.0	Based on EPA 8270D
Total LMW, HMW, Total PAH Calc	8	N/A	2009/09/08		
Total LMW, HMW, Total PAH Calc	1	N/A	2009/09/09		
Total LMW, HMW, Total PAH Calc	7	N/A	2009/09/10		
pH (2:1 DI Water Extract) @	4	2009/09/09	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) @	4	2009/09/10	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) @	19	2009/09/11	2009/09/12	BRN SOP-00266 R6.0	Carter, SSMA 16.2
CCME F1 C6-C10 in Soil by GC/FID @	8	2009/09/04	2009/09/06		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID @	12	2009/09/04	2009/09/07		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID @	3	2009/09/04	2009/09/10		Based on EPA SW8260B
VOCs in Soil by HS GC/MS	7	2009/09/04	2009/09/06	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	15	2009/09/04	2009/09/07	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	1	2009/09/04	2009/09/09	BRN SOP-00311 R8.0	Based on EPA 8260B
Pesticides, OC Soil Subcontract @	3	2009/09/11	2009/09/09		
PCB Soil Subcontract @	7	2009/09/14	2009/09/08		

* Results relate only to the items tested.

(1) This test was performed by Maxxam Ontario (From Burnaby)
(2) SCC/CAEAL

Maxxam Analytics - Partial/Rush Results

(3) SCC/CAEAL/NELAC

Encryption Key

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

KIMBERLEY WEBBER, BBY Customer Service
Email: kim.webber@maxxamanalytics.com
Phone# (604) 444-4808 Ext:259

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q56933	Q56934		Q56935		Q56937	Q56939	Q56940	Q56941	Q56943		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**3-09-1-1**	**3-09-2-1**	**QC Batch**	**3-09-2-2**	**QC Batch**	**3-09-3-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-DUP-1**	**3-09-5M-2**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A								ATTACHED			N/A	3145118
Physical Properties													
<200 mesh (>.075 mm)	%		43.7	3398902				59.3				0.1	3398902
>200 mesh (<.075 mm)	%		56.3	3398902				40.8				0.1	3398902
Moisture	%	5.6		3395524	7.3	3395624	6.5	8.4	8.9	5.8	5.3	0.3	3395524

Maxxam ID		Q56947	Q56948	Q56949		Q56950	Q56951		Q56978	Q56979	Q56980		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/30	2009/08/30	2009/08/30		
	Units	**3-09-6M-3**	**3-09-DUP-2**	**1-09-1M-1**	**QC Batch**	**1-09-2M-1**	**1-09-3M-1**	**QC Batch**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A				3145118	ATTACHED		2627069			ATTACHED	N/A	3145118
Physical Properties													
<200 mesh (>.075 mm)	%				3398902						36.4	0.1	3398902
>200 mesh (<.075 mm)	%				3398902						63.6	0.1	3398902
Moisture	%	10	9.5	7.4	3395524	9.1	9.5	3395524	11	8.6	10	0.3	3395624

Maxxam ID		Q56981	Q56982	Q56983	Q56984	Q56985	Q56986	Q56987	Q56988	Q56989		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-DUP-1**	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**4A-09-4-1**	**4A-09-5-1**	**4A-09-6-1**	**4A-09-6-2**	**RDL**	**QC Batch**
Physical Properties												
Moisture	%	11	11	8.7	12	11	9.9	9.7	5.6	11	0.3	3395624

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q57022	Q57023		Q57029	Q57032	Q57059	Q57062	Q57065	Q57100	Q57101		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-7-1**	**4A-09-8-1**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-1**	**2-09-TP1-2**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A			3145118						ATTACHED		N/A	3145118
Physical Properties													
Moisture	%	8.8	12	3395624	6.2	11	19	21	13		15	0.3	3395627

Maxxam ID		Q57103		Q57104	Q57106	Q57107	Q57108	Q57109		
Sampling Date		2009/08/29		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP2-2**	**QC Batch**	**2-09-TP3-1**	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**RDL**	**QC Batch**
Parameter										
Subcontract Parameter	N/A	ATTACHED	2627069	ATTACHED					N/A	3145118
Physical Properties										
Moisture	%	24	3395627	16	22	8.9	17	11	0.3	3395627

Maxxam ID		Q57110	Q57110		Q57111	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP8-1**	**2-09-TP8-1 Lab-Dup**	**QC Batch**	**2-09-TP9-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Parameter									
Subcontract Parameter	N/A	ATTACHED		2627069	ATTACHED			N/A	3145118
Physical Properties									
Moisture	%	9.3	10	3395627	32	27	2.4	0.3	3395627

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q56933	Q56935	Q56937	Q56939	Q56940	Q56941	Q56943	Q56947		Q56948		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29		
	Units	**3-09-1-1**	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-DUP-1**	**3-09-5M-2**	**3-09-6M-3**	**QC Batch**	**3-09-DUP-2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon													
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	16	27	<10	1700	850	3398109	860	10	3400091
F3 (C16-C34 Hydrocarbons)	mg/kg	220	<10	<10	13	17	430	30	160	3398109	180	10	3400091
F4 (C34-C50 Hydrocarbons)	mg/kg	190	<10	<10	<10	<10	190	<10	<10	3398109	<10	10	3400091
Reached Baseline at C50	mg/kg	NO	YES	YES	YES	YES	YES	YES	YES	3398109	YES	N/A	3400091
Surrogate Recovery (%)													
O-TERPHENYL (sur.)	%	89	92	102	101	100	85	97	100	3398109	106		3400091

Maxxam ID		Q56949	Q56950	Q56951		Q56978	Q56979	Q56980		Q56981	Q56981		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30		
	Units	**1-09-1M-1**	**1-09-2M-1**	**1-09-3M-1**	**QC Batch**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**QC Batch**	**1-09-DUP-1**	**1-09-DUP-1 Lab-Dup**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon													
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	3400091	<10	<10	<10	3398109	<10	<10	10	3405247
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	<10	<10	3400091	<10	10	<10	3398109	<10	14	10	3405247
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	3400091	<10	<10	<10	3398109	<10	<10	10	3405247
Reached Baseline at C50	mg/kg	YES	YES	YES	3400091	YES	YES	YES	3398109	YES	YES	N/A	3405247
Surrogate Recovery (%)													
O-TERPHENYL (sur.)	%	100	97	102	3400091	76	110	105	3398109	79	69		3405247

Maxxam ID		Q56982	Q56983	Q56984	Q56985		Q56986	Q56987	Q56988	Q56989		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**QC Batch**	**4A-09-4-1**	**4A-09-5-1**	**4A-09-6-1**	**4A-09-6-2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	740	<10	3400091	3700	12000	<10	<10	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	22	<10	140	<10	3400091	520	6400	110	27	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	<10	3400091	11	3900	94	15	10	3398109
Reached Baseline at C50	mg/kg	YES	YES	YES	YES	3400091	YES	YES	NO	NO	N/A	3398109
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	106	105	93	97	3400091	69	93	103	91		3398109

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q57022		Q57023	Q57029	Q57032	Q57059	Q57062	Q57065	Q57101	Q57103		
Sampling Date		2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-7-1**	**QC Batch**	**4A-09-8-1**	**5-09TP4-3**	**6-09TP1-3**	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon													
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	3398109	150	<10	<10	<10	<10	<10	<10	<10	10	3405247
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	3398109	120	<10	35	<10	47	350	50	19	10	3405247
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	3398109	<10	<10	<10	<10	<10	23	<10	<10	10	3405247
Reached Baseline at C50	mg/kg	YES	3398109	YES	YES	YES	YES	YES	YES	YES	YES	N/A	3405247
Surrogate Recovery (%)													
O-TERPHENYL (sur.)	%	94	3398109	82	82	70	76	87	83	91	88		3405247

Maxxam ID		Q57104	Q57106		Q57107	Q57107	Q57108		
Sampling Date		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP3-1**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**2-09-TP5-1 Lab-Dup**	**2-09-TP6-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	<10	3405247	66	63	65	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	YES	3405247	YES	YES	YES	N/A	3410083
Surrogate Recovery (%)									
O-TERPHENYL (sur.)	%	84	77	3405247	91	91	97		3410083

Maxxam ID		Q57109		Q57110	Q57111		Q57114	Q57115		
Sampling Date		2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29		
	Units	**2-09-TP7-1**	**QC Batch**	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	3410083	13	31	3400091	13	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	23	3410083	120	52	3400091	39	74	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	3410083	18	<10	3400091	<10	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	3410083	YES	YES	3400091	YES	YES	N/A	3410083
Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	93	3410083	99	96	3400091	92	94		3410083

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

GLYCOLS BY GC-FID (SOIL)

Maxxam ID		Q56950		
Sampling Date		2009/08/29		
	Units	**1-09-2M-1**	**RDL**	**QC Batch**
Glycols				
Extractable (Water) Ethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Diethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Triethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Tetraethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Propylene Glycol	mg/kg	<10	10	3404986
Surrogate Recovery (%)				
Extractable (Water) SULFOLANE (sur.)	%	86		3404986

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56935	Q56937	Q56939	Q56943		Q56947	Q56947		Q56948		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/29		
	Units	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-5M-2**	**QC Batch**	**3-09-6M-3**	**3-09-6M-3 Lab-Dup**	**QC Batch**	**3-09-DUP-2**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	28	110	3393756	120		3393756	88	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	0.015	<0.005	0.86	<0.005	3398448	0.005	<0.005	3398449	<0.005	0.005	3398448
Ethylbenzene	mg/kg	<0.01	<0.01	0.05	<0.01	3398448	0.08	0.08	3398449	0.10	0.01	3398448
m & p-Xylene	mg/kg	<0.1	<0.1	0.3	<0.1	3398448	2.1	2.0	3398449	1.6	0.1	3398448
o-Xylene	mg/kg	<0.1	<0.1	0.1	<0.1	3398448	0.9	0.8	3398449	0.6	0.1	3398448
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Toluene	mg/kg	0.07	<0.05	0.16	<0.05	3398448	<0.05	<0.05	3398449	<0.05	0.05	3398448
Xylenes (Total)	mg/kg	<0.1	<0.1	0.5	<0.1	3398448	2.9	2.8	3398449	2.3	0.1	3398448
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	29	110	3398448	120	110	3398449	90	10	3398448
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	101	100	99	106	3398448	109	108	3398449	115		3398448
D10-ETHYLBENZENE (sur.)	%	102	98	102	101	3398448	107	106	3398449	102		3398448
D4-1,2-DICHLOROETHANE (sur.)	%	93	93	93	94	3398448	98	97	3398449	94		3398448
D8-TOLUENE (sur.)	%	103	102	102	98	3398448	100	100	3398449	98		3398448

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56949	Q56951	Q56978	Q56981	Q56982		Q56983	Q56983	Q56985		
Sampling Date		2009/08/29	2009/08/29	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-1M-1**	**1-09-3M-1**	**1-09-4M-1**	**1-09-DUP-1**	**4A-09-1M-1**	**QC Batch**	**4A-09-2M-1**	**4A-09-2M-1 Lab-Dup**	**4A-09-DUP-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	3393756	<10		<10	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	3398448	<0.005	<0.005	0.009	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	3398448	<0.01	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	3398448	<0.05	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	<10	<10	<10	3398448	<10	<10	<10	10	3399617
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	106	101	101	100	99	3398448	101	100	101		3399617
D10-ETHYLBENZENE (sur.)	%	101	100	96	102	94	3398448	100	100	100		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	92	94	100	97	101	3398448	102	103	104		3399617
D8-TOLUENE (sur.)	%	102	102	101	101	102	3398448	97	98	98		3399617

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56988	Q56989	Q57022	Q57023	Q57110	Q57111		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-6-1**	**4A-09-6-2**	**4A-09-7-1**	**4A-09-8-1**	**2-09-TP8-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	32	180	<10	<10	10	3393756
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	0.046	<0.005	<0.005	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	0.02	0.07	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	2.0	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	2.5	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons									
(C6-C10)	mg/kg	<10	<10	32	180	<10	<10	10	3399617
Volatiles									
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	100	101	102	111	100	103		3399617
D10-ETHYLBENZENE (sur.)	%	103	100	102	100	99	98		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	102	104	103	105	103	105		3399617
D8-TOLUENE (sur.)	%	98	98	98	99	97	97		3399617

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56950		Q56951	Q56978	Q56979	Q56980	Q56980	Q56984	Q56986		
Sampling Date		2009/08/29		2009/08/29	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-2M-1**	**QC Batch**	**1-09-3M-1**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**1-09-6M-1 Lab-Dup**	**4A-09-3M-1**	**4A-09-4-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.39	3407604	8.10	8.28	7.87	8.17	8.17	7.98	8.03	0.01	3407604
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	7100	3401543	7540	8490	3540	8170	9210	4310	4280	100	3401600
Total Antimony (Sb)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.1	3401600
Total Arsenic (As)	mg/kg	1.3	3401543	1.2	1.7	1.0	1.9	1.9	2.7	1.9	0.2	3401600
Total Barium (Ba)	mg/kg	37.3	3401543	35.2	40.3	21.7	38.6	42.0	27.2	28.3	0.1	3401600
Total Beryllium (Be)	mg/kg	0.5	3401543	0.5	0.5	0.2	0.4	0.5	0.3	0.2	0.1	3401600
Total Bismuth (Bi)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3401600
Total Cadmium (Cd)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.08	0.05	3401600
Total Calcium (Ca)	mg/kg	42600	3401543	31700	35600	44800	49100	51200	75700	75900	100	3401600
Total Chromium (Cr)	mg/kg	18	3401543	14	21	7	18	20	11	10	1	3401600
Total Cobalt (Co)	mg/kg	5.4	3401543	5.6	5.2	3.1	5.7	6.2	3.9	3.4	0.3	3401600
Total Copper (Cu)	mg/kg	12.2	3401543	23.8	12.0	16.5	12.3	13.7	9.0	8.2	0.5	3401600
Total Iron (Fe)	mg/kg	12500	3401543	10700	13700	7990	12500	13900	10600	9540	100	3401600
Total Lead (Pb)	mg/kg	5.1	3401543	4.9	4.9	3.5	5.1	5.6	13.5	14.4	0.1	3401600
Total Magnesium (Mg)	mg/kg	26300	3401543	19500	23200	24300	29000	31200	40300	43100	100	3401600
Total Manganese (Mn)	mg/kg	231	3401543	192	229	187	247	262	328	275	0.2	3401600
Total Mercury (Hg)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3401600
Total Molybdenum (Mo)	mg/kg	0.5	3401543	0.2	0.4	0.3	0.3	0.3	0.6	0.5	0.1	3401600
Total Nickel (Ni)	mg/kg	12.4	3401543	11.8	12.2	6.2	13.1	14.5	10.0	9.0	0.8	3401600
Total Phosphorus (P)	mg/kg	484	3401543	458	505	383	512	526	625	451	10	3401600
Total Potassium (K)	mg/kg	3180	3401543	3990	3320	1520	3470	3720	1900	1890	100	3401600
Total Selenium (Se)	mg/kg	<0.5	3401543	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3401600
Total Silver (Ag)	mg/kg	0.06	3401543	0.06	0.06	<0.05	0.06	0.06	<0.05	<0.05	0.05	3401600
Total Sodium (Na)	mg/kg	310	3401543	266	337	143	310	336	184	180	100	3401600
Total Strontium (Sr)	mg/kg	27.7	3401543	23.5	25.1	20.2	26.5	28.7	43.5	38.7	0.1	3401600
Total Thallium (Tl)	mg/kg	0.12	3401543	0.15	0.12	0.08	0.14	0.15	0.10	0.09	0.05	3401600
Total Tin (Sn)	mg/kg	0.3	3401543	0.3	0.4	0.1	0.3	0.4	0.2	0.2	0.1	3401600
Total Titanium (Ti)	mg/kg	415	3401543	219	562	157	433	483	184	192	1	3401600
Total Vanadium (V)	mg/kg	28	3401543	20	33	15	28	31	22	19	2	3401600
Total Zinc (Zn)	mg/kg	21	3401543	13	23	7	19	22	13	11	1	3401600
Total Zirconium (Zr)	mg/kg	5.7	3401543	5.9	5.8	2.1	5.6	6.3	2.9	2.8	0.5	3401600

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56987		Q57029	Q57029		Q57032	Q57033		Q57034		
Sampling Date		2009/08/30		2009/08/30	2009/08/30		2009/08/30	2009/08/30		2009/08/30		
	Units	**4A-09-5-1**	**QC Batch**	**5-09TP4-3**	**5-09TP4-3 Lab-Dup**	**QC Batch**	**6-09TP1-3**	**BG-1**	**QC Batch**	**BG-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.55	3407604	8.49	8.42	3410846	7.96	8.17	3412134	8.29	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3940	3401600	4420		3402570	4830	2470	3402612	2800	100	3402570
Total Antimony (Sb)	mg/kg	0.2	3401600	<0.1		3402570	0.1	<0.1	3402612	<0.1	0.1	3402570
Total Arsenic (As)	mg/kg	1.5	3401600	0.7		3402570	0.7	0.5	3402612	1.4	0.2	3402570
Total Barium (Ba)	mg/kg	25.3	3401600	33.3		3402570	32.3	21.6	3402612	18.6	0.1	3402570
Total Beryllium (Be)	mg/kg	0.4	3401600	0.3		3402570	0.3	0.2	3402612	0.3	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3401600	<0.1		3402570	<0.1	<0.1	3402612	<0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	0.39	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	92900	3401600	57400		3402570	53100	64600	3402612	51800	100	3402570
Total Chromium (Cr)	mg/kg	9	3401600	9		3402570	12	7	3402612	7	1	3402570
Total Cobalt (Co)	mg/kg	3.7	3401600	4.7		3402570	4.7	2.6	3402612	3.6	0.3	3402570
Total Copper (Cu)	mg/kg	10.8	3401600	9.3		3402570	10.4	8.7	3402612	8.4	0.5	3402570
Total Iron (Fe)	mg/kg	10100	3401600	9010		3402570	10400	9690	3402612	7750	100	3402570
Total Lead (Pb)	mg/kg	294	3401600	7.5		3402570	5.9	4.3	3402612	3.9	0.1	3402570
Total Magnesium (Mg)	mg/kg	53500	3401600	30400		3402570	31000	37000	3402612	28500	100	3402570
Total Manganese (Mn)	mg/kg	350	3401600	247		3402570	257	295	3402612	230	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.7	3401600	0.3		3402570	0.3	0.2	3402612	0.1	0.1	3402570
Total Nickel (Ni)	mg/kg	9.5	3401600	10.7		3402570	10.8	6.8	3402612	8.0	0.8	3402570
Total Phosphorus (P)	mg/kg	373	3401600	460		3402570	560	541	3402612	681	10	3402570
Total Potassium (K)	mg/kg	2250	3401600	2250		3402570	2220	1110	3402612	1520	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3401600	<0.5		3402570	<0.5	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3401600	0.06		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Sodium (Na)	mg/kg	195	3401600	229		3402570	149	<100	3402612	119	100	3402570
Total Strontium (Sr)	mg/kg	35.6	3401600	21.6		3402570	27.3	23.6	3402612	21.0	0.1	3402570
Total Thallium (Tl)	mg/kg	0.08	3401600	0.11		3402570	0.12	0.08	3402612	0.08	0.05	3402570
Total Tin (Sn)	mg/kg	0.3	3401600	0.2		3402570	0.2	0.1	3402612	0.2	0.1	3402570
Total Titanium (Ti)	mg/kg	122	3401600	188		3402570	260	121	3402612	126	1	3402570
Total Vanadium (V)	mg/kg	17	3401600	14		3402570	20	13	3402612	12	2	3402570
Total Zinc (Zn)	mg/kg	13	3401600	13		3402570	16	7	3402612	10	1	3402570
Total Zirconium (Zr)	mg/kg	3.1	3401600	3.9		3402570	2.9	2.5	3402612	3.7	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57035	Q57059		Q57062		Q57065	Q57101		Q57103		
Sampling Date		2009/08/30	2009/08/30		2009/08/30		2009/08/30	2009/08/29		2009/08/29		
	Units	**BG-3**	**5-09-TP1-1**	**QC Batch**	**5-09-TP2-1**	**QC Batch**	**5-09-TP3-1**	**2-09-TP1-2**	**QC Batch**	**2-09-TP2-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.34	8.28	3412134	8.29	3410846	8.60	7.30	3412134	7.75	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3310	6630	3402612	2640	3402570	3300	3560	3402612	8920	100	3404758
Total Antimony (Sb)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	0.3	0.2	3402612	0.2	0.1	3404758
Total Arsenic (As)	mg/kg	0.9	2.1	3402612	2.4	3402570	1.6	1.8	3402612	8.5	0.2	3404758
Total Barium (Ba)	mg/kg	19.4	35.5	3402612	28.2	3402570	35.6	41.4	3402612	60.3	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.3	3402612	0.4	3402570	0.3	0.3	3402612	0.6	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	<0.1	<0.1	3402612	<0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	0.14	3402612	<0.05	3402570	0.05	0.07	3402612	0.11	0.05	3404758
Total Calcium (Ca)	mg/kg	53000	53900	3402612	95400	3402570	91400	67900	3402612	54200	100	3404758
Total Chromium (Cr)	mg/kg	8	15	3402612	12	3402570	9	11	3402612	27	1	3404758
Total Cobalt (Co)	mg/kg	3.7	6.7	3402612	7.1	3402570	3.6	3.3	3402612	5.1	0.3	3404758
Total Copper (Cu)	mg/kg	8.0	11.8	3402612	13.7	3402570	8.0	28.7	3402612	12.5	0.5	3404758
Total Iron (Fe)	mg/kg	7400	13100	3402612	15200	3402570	9350	9650	3402612	16300	100	3404758
Total Lead (Pb)	mg/kg	3.5	6.5	3402612	10.6	3402570	16.9	4.9	3402612	6.2	0.1	3404758
Total Magnesium (Mg)	mg/kg	30900	32300	3402612	54000	3402570	51600	35400	3402612	33400	100	3404758
Total Manganese (Mn)	mg/kg	212	340	3402612	535	3402570	322	265	3402612	224	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402612	<0.05	3402570	<0.05	<0.05	3402612	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	0.2	0.5	3402612	0.7	3402570	0.6	0.8	3402612	3.4	0.1	3404758
Total Nickel (Ni)	mg/kg	8.7	14.8	3402612	18.2	3402570	8.7	14.4	3402612	15.5	0.8	3404758
Total Phosphorus (P)	mg/kg	464	583	3402612	1240	3402570	514	717	3402612	713	10	3404758
Total Potassium (K)	mg/kg	1690	2530	3402612	1750	3402570	1790	1500	3402612	3590	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402612	<0.5	3402570	<0.5	0.9	3402612	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	<0.05	0.06	3402612	0.07	3402570	<0.05	0.05	3402612	0.08	0.05	3404758
Total Sodium (Na)	mg/kg	135	179	3402612	180	3402570	163	329	3402612	585	100	3404758
Total Strontium (Sr)	mg/kg	20.2	26.9	3402612	47.4	3402570	34.5	27.2	3402612	35.6	0.1	3404758
Total Thallium (Tl)	mg/kg	0.09	0.13	3402612	0.08	3402570	0.09	0.13	3402612	0.14	0.05	3404758
Total Tin (Sn)	mg/kg	0.2	0.3	3402612	0.2	3402570	0.2	0.2	3402612	0.4	0.1	3404758
Total Titanium (Ti)	mg/kg	142	299	3402612	69	3402570	134	156	3402612	604	1	3404758
Total Vanadium (V)	mg/kg	13	22	3402612	21	3402570	14	18	3402612	43	2	3404758
Total Zinc (Zn)	mg/kg	9	34	3402612	8	3402570	12	15	3402612	32	1	3404758
Total Zirconium (Zr)	mg/kg	3.3	4.8	3402612	5.2	3402570	2.4	4.4	3402612	6.3	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57104		Q57106		Q57107		Q57108		Q57109		
Sampling Date		2009/08/29		2009/08/29		2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP3-1**	**QC Batch**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**QC Batch**	**2-09-TP6-1**	**QC Batch**	**2-09-TP7-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	7.90	3410846	8.49	3412134	8.02	3412134	8.09	3412134	8.12	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	4800	3402570	2950	3402612	4050	3402570	3860	3402612	3850	100	3402570
Total Antimony (Sb)	mg/kg	<0.1	3402570	<0.1	3402612	0.1	3402570	0.6	3402612	0.2	0.1	3402570
Total Arsenic (As)	mg/kg	1.8	3402570	1.6	3402612	3.3	3402570	40.6	3402612	6.5	0.2	3402570
Total Barium (Ba)	mg/kg	27.1	3402570	24.0	3402612	20.2	3402570	32.3	3402612	19.9	0.1	3402570
Total Beryllium (Be)	mg/kg	0.3	3402570	0.3	3402612	0.5	3402570	0.7	3402612	0.6	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3402570	<0.1	3402612	0.2	3402570	0.1	3402612	0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	<0.05	3402570	<0.05	3402612	1.45	3402570	0.06	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	54700	3402570	85900	3402612	81100	3402570	40800	3402612	31600	100	3402570
Total Chromium (Cr)	mg/kg	12	3402570	8	3402612	20	3402570	16	3402612	15	1	3402570
Total Cobalt (Co)	mg/kg	4.3	3402570	3.6	3402612	6.1	3402570	10.1	3402612	13.7	0.3	3402570
Total Copper (Cu)	mg/kg	12.0	3402570	8.5	3402612	94.5	3402570	24.5	3402612	20.0	0.5	3402570
Total Iron (Fe)	mg/kg	11100	3402570	8520	3402612	16200	3402570	51000	3402612	18200	100	3402570
Total Lead (Pb)	mg/kg	3.6	3402570	3.6	3402612	21.4	3402570	24.5	3402612	21.2	0.1	3402570
Total Magnesium (Mg)	mg/kg	32500	3402570	53300	3402612	48000	3402570	22600	3402612	17000	100	3402570
Total Manganese (Mn)	mg/kg	292	3402570	259	3402612	561	3402570	433	3402612	333	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3402570	<0.05	3402612	<0.05	3402570	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.4	3402570	0.3	3402612	1.3	3402570	7.4	3402612	4.9	0.1	3402570
Total Nickel (Ni)	mg/kg	10.4	3402570	8.5	3402612	32.1	3402570	25.5	3402612	20.9	0.8	3402570
Total Phosphorus (P)	mg/kg	539	3402570	636	3402612	1010	3402570	1820	3402612	798	10	3402570
Total Potassium (K)	mg/kg	1400	3402570	1890	3402612	1680	3402570	2570	3402612	2590	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3402570	<0.5	3402612	<0.5	3402570	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3402570	<0.05	3402612	0.09	3402570	<0.05	3402612	0.09	0.05	3402570
Total Sodium (Na)	mg/kg	215	3402570	333	3402612	231	3402570	1220	3402612	712	100	3402570
Total Strontium (Sr)	mg/kg	25.1	3402570	29.8	3402612	75.7	3402570	58.0	3402612	35.1	0.1	3402570
Total Thallium (Tl)	mg/kg	0.07	3402570	0.08	3402612	0.09	3402570	0.09	3402612	0.09	0.05	3402570
Total Tin (Sn)	mg/kg	0.2	3402570	0.1	3402612	0.4	3402570	0.4	3402612	0.5	0.1	3402570
Total Titanium (Ti)	mg/kg	285	3402570	135	3402612	110	3402570	75	3402612	84	1	3402570
Total Vanadium (V)	mg/kg	25	3402570	12	3402612	22	3402570	69	3402612	22	2	3402570
Total Zinc (Zn)	mg/kg	16	3402570	10	3402612	110	3402570	24	3402612	16	1	3402570
Total Zirconium (Zr)	mg/kg	2.5	3402570	2.0	3402612	4.5	3402570	4.3	3402612	6.1	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57110	Q57111		Q57114		Q57115		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**QC Batch**	**GR2**	**RDL**	**QC Batch**
Misc. Inorganics									
Soluble (2:1) pH	pH Units	8.14	8.32	3410846	8.10	3412134	7.90	0.01	3412134
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	2860	3180	3402570	3900	3402570	4980	100	3404758
Total Antimony (Sb)	mg/kg	0.2	0.1	3402570	0.2	3402570	0.1	0.1	3404758
Total Arsenic (As)	mg/kg	5.2	8.7	3402570	9.1	3402570	2.0	0.2	3404758
Total Barium (Ba)	mg/kg	41.5	17.1	3402570	25.7	3402570	24.5	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.7	3402570	0.7	3402570	0.3	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	0.1	3402570	0.1	3402570	0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	1.71	0.05	3404758
Total Calcium (Ca)	mg/kg	53800	111000	3402570	72900	3402570	72800	100	3404758
Total Chromium (Cr)	mg/kg	13	13	3402570	17	3402570	22	1	3404758
Total Cobalt (Co)	mg/kg	12.1	6.0	3402570	16.0	3402570	5.0	0.3	3404758
Total Copper (Cu)	mg/kg	18.2	11.3	3402570	22.4	3402570	102	0.5	3404758
Total Iron (Fe)	mg/kg	22200	22200	3402570	24300	3402570	11900	100	3404758
Total Lead (Pb)	mg/kg	22.9	15.2	3402570	25.6	3402570	20.8	0.1	3404758
Total Magnesium (Mg)	mg/kg	29600	63200	3402570	40800	3402570	40800	100	3404758
Total Manganese (Mn)	mg/kg	490	807	3402570	639	3402570	495	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	3.7	2.7	3402570	4.7	3402570	0.9	0.1	3404758
Total Nickel (Ni)	mg/kg	23.4	13.0	3402570	24.0	3402570	29.7	0.8	3404758
Total Phosphorus (P)	mg/kg	659	1600	3402570	1030	3402570	901	10	3404758
Total Potassium (K)	mg/kg	2080	2000	3402570	2480	3402570	1660	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402570	<0.5	3402570	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	0.11	0.05	3402570	0.07	3402570	0.07	0.05	3404758
Total Sodium (Na)	mg/kg	476	1300	3402570	1730	3402570	216	100	3404758
Total Strontium (Sr)	mg/kg	31.1	57.2	3402570	54.6	3402570	79.4	0.1	3404758
Total Thallium (Tl)	mg/kg	0.21	0.05	3402570	0.10	3402570	0.10	0.05	3404758
Total Tin (Sn)	mg/kg	0.4	0.3	3402570	0.5	3402570	0.5	0.1	3404758
Total Titanium (Ti)	mg/kg	61	80	3402570	110	3402570	147	1	3404758
Total Vanadium (V)	mg/kg	23	30	3402570	34	3402570	20	2	3404758
Total Zinc (Zn)	mg/kg	12	10	3402570	18	3402570	97	1	3404758
Total Zirconium (Zr)	mg/kg	5.7	6.2	3402570	4.9	3402570	3.1	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56933		Q56940	Q56941		Q56950	Q56950	Q56980		
Sampling Date		2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/30		
	Units	**3-09-1-1**	**QC Batch**	**3-09-4M-3**	**3-09-DUP-1**	**QC Batch**	**1-09-2M-1**	**1-09-2M-1 Lab-Dup**	**1-09-6M-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	<0.01	3393461	0.40	<0.01	3393461	<0.01		<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02	3393461	<0.02	<0.02	3393461	<0.02		<0.02	0.02	3393461
Total PAH	mg/kg	<0.02	3393461	0.40	<0.02	3393461	<0.02		<0.02	0.02	3393461
Naphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
2-Methylnaphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthylene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluorene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Phenanthrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Chrysene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(b&j)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(k)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Dibenz(a,h)anthracene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Benzo(g,h,i)perylene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	88	3396608	95	95	3397567	91	88	90		3396608
D12-BENZO(A)PYRENE (sur.)	%	84	3396608	91	89	3397567	86	85	85		3396608
D8-ACENAPHTHYLENE (sur.)	%	84	3396608	90	91	3397567	86	84	86		3396608
TERPHENYL-D14 (sur.)	%	87	3396608	96	94	3397567	91	88	88		3396608

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56984			Q56986		Q56987			Q57029	Q57032		
Sampling Date		2009/08/30			2009/08/30		2009/08/30			2009/08/30	2009/08/30		
	Units	**4A-09-3M-1**	**RDL**	**QC Batch**	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**RDL**	**QC Batch**
Polycyclic Aromatics													
Low Molecular Weight PAH`s	mg/kg	5.6	0.1	3393461	16	0.1	58	0.4	3393461	<0.01	<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	0.03	0.02	3393461	<0.2	0.2	<0.2	0.2	3393461	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	5.6	0.1	3393461	16	0.2	58	0.4	3393461	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	1.3	0.01	3400175	4.3(1)	0.1	13(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
2-Methylnaphthalene	mg/kg	4.0	0.01	3400175	11(1)	0.1	39(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Acenaphthylene	mg/kg	<0.1(2)	0.1	3400175	<0.1(2)	0.1	<0.4(2)	0.4	3397567	<0.01	<0.01	0.01	3401373
Acenaphthene	mg/kg	<0.03(2)	0.03	3400175	0.2(1)	0.1	0.8(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Fluorene	mg/kg	0.14	0.01	3400175	0.5(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Phenanthrene	mg/kg	0.13	0.01	3400175	0.3(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.3(2)	0.3	3397567	<0.01	<0.01	0.01	3401373
Fluoranthene	mg/kg	0.02	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Pyrene	mg/kg	0.01	0.01	3400175	<0.1(1)	0.1	0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Chrysene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(b&j)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(k)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)pyrene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Dibenz(a,h)anthracene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Benzo(g,h,i)perylene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Surrogate Recovery (%)													
D10-ANTHRACENE (sur.)	%	104		3400175	120		120		3397567	107	101		3401373
D12-BENZO(A)PYRENE (sur.)	%	101		3400175	110		110		3397567	99	94		3401373
D8-ACENAPHTHYLENE (sur.)	%	99		3400175	100		90		3397567	96	91		3401373
TERPHENYL-D14 (sur.)	%	96		3400175	110		100		3397567	94	91		3401373

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.
(2) - RDL raised due to sample matrix interference.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q57059	Q57059		Q57062	Q57065	Q57103	Q57104	Q57111		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP1-1 Lab-Dup**	**QC Batch**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP2-2**	**2-09-TP3-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	0.01		3393461	<0.01	0.61	<0.01	<0.01	0.02	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02		3393461	<0.02	2.1	<0.02	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	<0.02		3393461	<0.02	2.7	<0.02	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	0.01	<0.01	3399651	<0.01	0.03	<0.01	<0.01	<0.01	0.01	3400184
2-Methylnaphthalene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	0.02	0.01	3400184
Acenaphthylene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3400184
Acenaphthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Fluorene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Phenanthrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.60	<0.01	<0.01	<0.01	0.01	3400184
Pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.18	<0.01	<0.01	<0.01	0.01	3400184
Chrysene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Benzo(b&j)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.27	<0.01	<0.01	<0.01	0.01	3400184
Benzo(k)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Dibenz(a,h)anthracene	mg/kg	<0.02	<0.02	3399651	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	3400184
Benzo(g,h,i)perylene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	95	95	3399651	108	107	112	115	114		3400184
D12-BENZO(A)PYRENE (sur.)	%	92	92	3399651	103	102	107	109	108		3400184
D8-ACENAPHTHYLENE (sur.)	%	90	90	3399651	98	98	99	102	102		3400184
TERPHENYL-D14 (sur.)	%	92	94	3399651	95	95	100	101	101		3400184

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10		44	<10	<10	<10	<10	10	4700	300	3393756
Chlorobenzenes												
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	1.2	0.006	<0.005	<0.005	<0.005	0.005	1.0	0.005	3399824
Ethylbenzene	mg/kg	<0.01	<0.01	0.08	<0.01	<0.01	<0.01	<0.01	0.01	5.6	0.01	3399824
m & p-Xylene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	0.1	22	0.1	3399824
o-Xylene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	7.0	0.1	3399824
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Toluene	mg/kg	<0.03	<0.03	0.28	<0.03	<0.03	<0.03	<0.03	0.03	15	0.03	3399824
Xylenes (Total)	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	<0.1	0.1	29	0.1	3399824

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Volatiles												
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<2(1)	2	3399824
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.3	3399824
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
cis-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	3399824
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	0.2	3399824
Vinyl chloride	mg/kg	<0.08(2)	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	<0.08	0.08	3399824
Volatile Hydrocarbons												
F1 (C06-C10)	mg/kg	<10	<10	47	<10	<10	<10	<10	10	4800(3)	300	3399909

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	84	85	92	86	84	85	85		72		3399824
D10-ETHYLBENZENE (sur.)	%	107	109	112	106	109	106	108		89		3399824
D4-1,2-DICHLOROETHANE (sur.)	%	82	83	80	82	82	81	82		80		3399824
D8-TOLUENE (sur.)	%	99	100	103	100	99	100	99		101		3399824

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters											
F1 (C06-C10) - BTEX	mg/kg	4400	300	4300	300	3393756	<10	<10		10	3393756
Chlorobenzenes											
1,2-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics											
Benzene	mg/kg	2.9	0.005	4.6	0.005	3399824	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	6.8	0.01	6.5	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	100(1)	0.5	65(1)	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	34(1)	0.5	11	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	37(1)	0.1	1.5	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	140	0.5	76	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Volatiles											
1,1,1,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<9(1)	9	<6(1)	6	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	0.3	<0.3	0.3	3399824	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05(2)	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	0.01	<0.01	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	0.2	<0.2	0.2	3399824	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	0.08	<0.08	0.08	3399824	<0.08	<0.08(2)	<0.08	0.08	3399837
Volatile Hydrocarbons											
F1 (C06-C10)	mg/kg	4600(3)	300	4400(3)	300	3399909	<10	<10	<10	10	3399912

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Surrogate Recovery (%)											
4-BROMOFLUOROBENZENE (sur.)	%	74		80		3399824	86	87	86		3399837
D10-ETHYLBENZENE (sur.)	%	89		89		3399824	109	107	104		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	81		84		3399824	80	81	81		3399837
D8-TOLUENE (sur.)	%	106		103		3399824	101	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	96	86	86	87	86	85		3399837
D10-ETHYLBENZENE (sur.)	%	99	106	107	94	109	106		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	102	81	79	81	79	79		3399837
D8-TOLUENE (sur.)	%	99	100	100	100	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	85	86	84	85	85	90		3399837
D10-ETHYLBENZENE (sur.)	%	104	105	106	101	103	91		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	80	81	80	79	79	83		3399837
D8-TOLUENE (sur.)	%	100	100	99	99	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Package 1	2.0°C
Package 2	5.0°C
Package 3	9.0°C
Package 4	9.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3395524	Moisture	2009/09/05					<0.3	%	2.6	20		
3395624	Moisture	2009/09/05					<0.3	%	0	20		
3395627	Moisture	2009/09/05					<0.3	%	9.2	20		
3396608	D10-ANTHRACENE (sur.)	2009/09/05			86	30 - 130	101	%				
3396608	D12-BENZO(A)PYRENE (sur.)	2009/09/05			84	30 - 130	94	%				
3396608	D8-ACENAPHTHYLENE (sur.)	2009/09/05			82	30 - 130	96	%				
3396608	TERPHENYL-D14 (sur.)	2009/09/05			86	30 - 130	100	%				
3396608	Naphthalene	2009/09/05	87	40 - 130	100	40 - 130	<0.01	mg/kg	NC	50		
3396608	2-Methylnaphthalene	2009/09/05	88	40 - 130	101	40 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthylene	2009/09/05	80	40 - 130	90	40 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthene	2009/09/05	86	40 - 130	98	40 - 130	<0.01	mg/kg	NC	50		
3396608	Fluorene	2009/09/05	81	40 - 130	96	40 - 130	<0.01	mg/kg	NC	50		
3396608	Phenanthrene	2009/09/05	88	40 - 130	101	40 - 130	<0.01	mg/kg	NC	50		
3396608	Anthracene	2009/09/05	83	40 - 130	96	40 - 130	<0.01	mg/kg	NC	50		
3396608	Fluoranthene	2009/09/05	83	40 - 130	100	40 - 130	<0.01	mg/kg	NC	50		
3396608	Pyrene	2009/09/05	85	40 - 130	97	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)anthracene	2009/09/05	81	40 - 130	91	40 - 130	<0.01	mg/kg	NC	50		
3396608	Chrysene	2009/09/05	81	40 - 130	92	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(b&j)fluoranthene	2009/09/05	85	40 - 130	101	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(k)fluoranthene	2009/09/05	82	40 - 130	95	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)pyrene	2009/09/05	86	40 - 130	97	40 - 130	<0.01	mg/kg	NC	50		
3396608	Indeno(1,2,3-cd)pyrene	2009/09/05	75	40 - 130	78	40 - 130	<0.02	mg/kg	NC	50		
3396608	Dibenz(a,h)anthracene	2009/09/05	72	40 - 130	76	40 - 130	<0.02	mg/kg	NC	50		
3396608	Benzo(g,h,i)perylene	2009/09/05	75	40 - 130	82	40 - 130	<0.02	mg/kg	NC	50		
3397567	D10-ANTHRACENE (sur.)	2009/09/05			91	30 - 130	101	%				
3397567	D12-BENZO(A)PYRENE (sur.)	2009/09/05			87	30 - 130	93	%				
3397567	D8-ACENAPHTHYLENE (sur.)	2009/09/05			89	30 - 130	96	%				
3397567	TERPHENYL-D14 (sur.)	2009/09/05			90	30 - 130	97	%				
3397567	Naphthalene	2009/09/05			106	40 - 130	<0.01	mg/kg	3.9	50		
3397567	2-Methylnaphthalene	2009/09/05			108	40 - 130	<0.01	mg/kg	2.8	50		
3397567	Acenaphthylene	2009/09/05			101	40 - 130	<0.01	mg/kg	3.0	50		
3397567	Acenaphthene	2009/09/05			102	40 - 130	<0.01	mg/kg	9.6	50		
3397567	Fluorene	2009/09/05			106	40 - 130	<0.01	mg/kg	9.0	50		
3397567	Phenanthrene	2009/09/05			110	40 - 130	<0.01	mg/kg	5.6	50		
3397567	Anthracene	2009/09/05			110	40 - 130	<0.01	mg/kg	7.4	50		
3397567	Fluoranthene	2009/09/05			109	40 - 130	<0.01	mg/kg	0.2	50		
3397567	Pyrene	2009/09/05			105	40 - 130	<0.01	mg/kg	1.4	50		
3397567	Benzo(a)anthracene	2009/09/05			102	40 - 130	<0.01	mg/kg	8.3	50		
3397567	Chrysene	2009/09/05			104	40 - 130	<0.01	mg/kg	5.4	50		
3397567	Benzo(b&j)fluoranthene	2009/09/05			103	40 - 130	<0.01	mg/kg	4.3	50		

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3397567	Benzo(k)fluoranthene	2009/09/05			108	40 - 130	<0.01	mg/kg	3.5	50		
3397567	Benzo(a)pyrene	2009/09/05			107	40 - 130	<0.01	mg/kg	1.8	50		
3397567	Indeno(1,2,3-cd)pyrene	2009/09/05			101	40 - 130	<0.02	mg/kg	6.1	50		
3397567	Dibenz(a,h)anthracene	2009/09/05			102	40 - 130	<0.02	mg/kg	5.1	50		
3397567	Benzo(g,h,i)perylene	2009/09/05			103	40 - 130	<0.02	mg/kg	5.6	50		
3398109	O-TERPHENYL (sur.)	2009/09/08			75	50 - 130	82	%				
3398109	F2 (C10-C16 Hydrocarbons)	2009/09/08			104	80 - 120	<10	mg/kg	NC	40		
3398109	F3 (C16-C34 Hydrocarbons)	2009/09/08			110	80 - 120	<10	mg/kg	3.3	40		
3398109	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.9	40		
3398109	Reached Baseline at C50	2009/09/08					YES, RDL=N/A	mg/kg	NC	50		
3398448	Benzene	2009/09/05			95	80 - 120	<0.005	mg/kg	NC	40		
3398448	Ethylbenzene	2009/09/05			108	80 - 120	<0.01	mg/kg	NC	40		
3398448	m & p-Xylene	2009/09/05			108	80 - 120	<0.1	mg/kg	NC	40		
3398448	o-Xylene	2009/09/05			110	80 - 120	<0.1	mg/kg	NC	40		
3398448	Toluene	2009/09/05			98	80 - 120	<0.05	mg/kg	NC	40		
3398448	4-BROMOFLUOROBENZENE (sur.)	2009/09/04			100	70 - 130	98	%			99	70 - 130
3398448	D10-ETHYLBENZENE (sur.)	2009/09/04			91	50 - 130	95	%			91	50 - 130
3398448	D4-1,2-DICHLOROETHANE (sur.)	2009/09/04			94	70 - 130	101	%			96	70 - 130
3398448	D8-TOLUENE (sur.)	2009/09/04			102	70 - 130	102	%			104	70 - 130
3398448	(C6-C10)	2009/09/05					<10	mg/kg	NC	40	83	80 - 120
3398448	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Xylenes (Total)	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Benzene	2009/09/05	97	60 - 140	97	80 - 120	<0.005	mg/kg	NC	40		
3398449	Ethylbenzene	2009/09/05	102	60 - 140	108	80 - 120	<0.01	mg/kg	3.5	40		
3398449	m & p-Xylene	2009/09/05	94	60 - 140	106	80 - 120	<0.1	mg/kg	5.2	40		
3398449	o-Xylene	2009/09/05	98	60 - 140	107	80 - 120	<0.1	mg/kg	9.7	40		
3398449	Toluene	2009/09/05	95	60 - 140	96	80 - 120	<0.05	mg/kg	NC	40		
3398449	4-BROMOFLUOROBENZENE (sur.)	2009/09/05			102	70 - 130	98	%			102	70 - 130
3398449	D10-ETHYLBENZENE (sur.)	2009/09/05			96	50 - 130	107	%			96	50 - 130
3398449	D4-1,2-DICHLOROETHANE (sur.)	2009/09/05			99	70 - 130	97	%			99	70 - 130
3398449	D8-TOLUENE (sur.)	2009/09/05			102	70 - 130	102	%			102	70 - 130
3398449	(C6-C10)	2009/09/05					<10	mg/kg	9.7	40	103	80 - 120
3398449	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Xylenes (Total)	2009/09/05					<0.1	mg/kg	6.6	40		
3398449	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398902	<200 mesh (>.075 mm)	2009/09/08							0.7	30		
3398902	>200 mesh (<.075 mm)	2009/09/08							1.2	30		
3399617	Benzene	2009/09/06	95	60 - 140	87	80 - 120	<0.005	mg/kg	NC	40		
3399617	Ethylbenzene	2009/09/06	100	60 - 140	95	80 - 120	<0.01	mg/kg	NC	40		

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399617	m & p-Xylene	2009/09/06	99	60 - 140	95	80 - 120	<0.1	mg/kg	NC	40		
3399617	o-Xylene	2009/09/06	103	60 - 140	98	80 - 120	<0.1	mg/kg	NC	40		
3399617	Toluene	2009/09/06	93	60 - 140	87	80 - 120	<0.05	mg/kg	NC	40		
3399617	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			103	70 - 130	99	%			102	70 - 130
3399617	D10-ETHYLBENZENE (sur.)	2009/09/06			92	50 - 130	99	%			91	50 - 130
3399617	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			102	70 - 130	98	%			104	70 - 130
3399617	D8-TOLUENE (sur.)	2009/09/06			99	70 - 130	100	%			99	70 - 130
3399617	(C6-C10)	2009/09/06					<10	mg/kg	NC	40	83	80 - 120
3399617	Styrene	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	40		
3399651	D10-ANTHRACENE (sur.)	2009/09/06			96	30 - 130	99	%				
3399651	D12-BENZO(A)PYRENE (sur.)	2009/09/06			93	30 - 130	93	%				
3399651	D8-ACENAPHTHYLENE (sur.)	2009/09/06			91	30 - 130	94	%				
3399651	TERPHENYL-D14 (sur.)	2009/09/06			91	30 - 130	96	%				
3399651	Naphthalene	2009/09/06	91	40 - 130	86	40 - 130	<0.01	mg/kg	NC	50		
3399651	2-Methylnaphthalene	2009/09/06	93	40 - 130	86	40 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthylene	2009/09/06	84	40 - 130	78	40 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthene	2009/09/06	89	40 - 130	84	40 - 130	<0.01	mg/kg	NC	50		
3399651	Fluorene	2009/09/06	88	40 - 130	82	40 - 130	<0.01	mg/kg	NC	50		
3399651	Phenanthrene	2009/09/06	91	40 - 130	88	40 - 130	<0.01	mg/kg	NC	50		
3399651	Anthracene	2009/09/06	88	40 - 130	83	40 - 130	<0.01	mg/kg	NC	50		
3399651	Fluoranthene	2009/09/06	90	40 - 130	84	40 - 130	<0.01	mg/kg	NC	50		
3399651	Pyrene	2009/09/06	86	40 - 130	82	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)anthracene	2009/09/06	86	40 - 130	78	40 - 130	<0.01	mg/kg	NC	50		
3399651	Chrysene	2009/09/06	83	40 - 130	80	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(b&j)fluoranthene	2009/09/06	90	40 - 130	80	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(k)fluoranthene	2009/09/06	92	40 - 130	88	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)pyrene	2009/09/06	93	40 - 130	86	40 - 130	<0.01	mg/kg	NC	50		
3399651	Indeno(1,2,3-cd)pyrene	2009/09/06	90	40 - 130	82	40 - 130	<0.02	mg/kg	NC	50		
3399651	Dibenz(a,h)anthracene	2009/09/06	91	40 - 130	83	40 - 130	<0.02	mg/kg	NC	50		
3399651	Benzo(g,h,i)perylene	2009/09/06	88	40 - 130	81	40 - 130	<0.02	mg/kg	NC	50		
3399824	1,2-dichlorobenzene	2009/09/07	104	60 - 140	101	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,3-dichlorobenzene	2009/09/07	108	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,4-dichlorobenzene	2009/09/07	99	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorobenzene	2009/09/07	102	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	Benzene	2009/09/07	102	60 - 140	95	60 - 140	<0.005	mg/kg	NC	50		
3399824	Ethylbenzene	2009/09/07	111	60 - 140	103	60 - 140	<0.01	mg/kg	NC	50		
3399824	m & p-Xylene	2009/09/07	115	60 - 140	106	60 - 140	<0.1	mg/kg	NC	50		
3399824	o-Xylene	2009/09/07	105	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399824	Styrene	2009/09/07	100	60 - 140	94	60 - 140	<0.1	mg/kg	NC	50		
3399824	Toluene	2009/09/07	99	60 - 140	91	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1,2-tetrachloroethane	2009/09/07	103	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1-trichloroethane	2009/09/07	113	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2,2-tetrachloroethane	2009/09/07	80	60 - 140	78	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2-trichloroethane	2009/09/07	87	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethane	2009/09/07	106	60 - 140	98	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethene	2009/09/07	117	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloroethane	2009/09/07	89	60 - 140	82	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloropropane	2009/09/07	101	60 - 140	94	60 - 140	<0.03	mg/kg	NC	50		
3399824	4-BROMOFLUOROBENZENE (sur.)	2009/09/07			101	70 - 130	86	%				
3399824	Bromodichloromethane	2009/09/07	96	60 - 140	88	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromoform	2009/09/07	72	60 - 140	68	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromomethane	2009/09/07	69	40 - 150	71	40 - 150	<0.3	mg/kg	NC	50		
3399824	Carbon tetrachloride	2009/09/07	118	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorodibromomethane	2009/09/07	92	60 - 140	86	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloroethane	2009/09/07	52	40 - 150	107	40 - 150	<0.1	mg/kg	NC	50		
3399824	Chloroform	2009/09/07	103	60 - 140	95	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloromethane	2009/09/07	99	40 - 150	94	40 - 150	<0.1	mg/kg	NC	50		
3399824	cis-1,2-dichloroethene	2009/09/07	104	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	cis-1,3-dichloropropene	2009/09/07	55 (1)	60 - 140	57 (2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	D10-ETHYLBENZENE (sur.)	2009/09/07			97	50 - 130	105	%				
3399824	D4-1,2-DICHLOROETHANE (sur.)	2009/09/07			85	70 - 130	82	%				
3399824	D8-TOLUENE (sur.)	2009/09/07			103	70 - 130	100	%				
3399824	Dibromoethane	2009/09/07	85	60 - 140	79	60 - 140	<0.03	mg/kg	NC	50		
3399824	Dichloromethane	2009/09/07	87	60 - 140	80	60 - 140	<0.1	mg/kg	NC	50		
3399824	Tetrachloroethene	2009/09/07	115	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,2-dichloroethene	2009/09/07	112	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,3-dichloropropene	2009/09/07	41 (1)	60 - 140	44 (2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	Trichloroethene	2009/09/07	114	60 - 140	105	60 - 140	<0.01	mg/kg	NC	50		
3399824	Trichlorofluoromethane	2009/09/07	116	40 - 150	106	40 - 150	<0.2	mg/kg	NC	50		
3399824	Vinyl chloride	2009/09/07	24 (1)	40 - 150	24 (2)	40 - 150	<0.08	mg/kg	NC	50		
3399824	Xylenes (Total)	2009/09/07					<0.1	mg/kg	NC	50		
3399824	Methyl-tert-butylether(MTBE)	2009/09/07					<0.1	mg/kg	NC	50		
3399837	1,2-dichlorobenzene	2009/09/06	106	60 - 140	102	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,3-dichlorobenzene	2009/09/06	108	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,4-dichlorobenzene	2009/09/06	99	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorobenzene	2009/09/06	102	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Benzene	2009/09/06	102	60 - 140	99	60 - 140	<0.005	mg/kg	NC	50		
3399837	Ethylbenzene	2009/09/06	111	60 - 140	107	60 - 140	<0.01	mg/kg	NC	50		

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399837	m & p-Xylene	2009/09/06	116	60 - 140	112	60 - 140	<0.1	mg/kg	NC	50		
3399837	o-Xylene	2009/09/06	107	60 - 140	103	60 - 140	<0.1	mg/kg	NC	50		
3399837	Styrene	2009/09/06	103	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		
3399837	Toluene	2009/09/06	98	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1,2-tetrachloroethane	2009/09/06	104	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1-trichloroethane	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2,2-tetrachloroethane	2009/09/06	81	60 - 140	81	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2-trichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethane	2009/09/06	106	60 - 140	103	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethene	2009/09/06	115	60 - 140	109	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloropropane	2009/09/06	101	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			99	70 - 130	84	%				
3399837	Bromodichloromethane	2009/09/06	96	60 - 140	92	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromoform	2009/09/06	73	60 - 140	70	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromomethane	2009/09/06	72	40 - 150	66	40 - 150	<0.3	mg/kg	NC	50		
3399837	Carbon tetrachloride	2009/09/06	116	60 - 140	111	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorodibromomethane	2009/09/06	93	60 - 140	89	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloroethane	2009/09/06	110	40 - 150	48	40 - 150	<0.1	mg/kg	NC	50		
3399837	Chloroform	2009/09/06	102	60 - 140	99	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloromethane	2009/09/06	87	40 - 150	88	40 - 150	<0.1	mg/kg	NC	50		
3399837	cis-1,2-dichloroethene	2009/09/06	103	60 - 140	100	60 - 140	<0.03	mg/kg	NC	50		
3399837	cis-1,3-dichloropropene	2009/09/06	69	60 - 140	67	60 - 140	<0.05	mg/kg	NC	50		
3399837	D10-ETHYLBENZENE (sur.)	2009/09/06			99	50 - 130	106	%				
3399837	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			84	70 - 130	79	%				
3399837	D8-TOLUENE (sur.)	2009/09/06			102	70 - 130	100	%				
3399837	Dibromoethane	2009/09/06	85	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399837	Dichloromethane	2009/09/06	86	60 - 140	84	60 - 140	<0.1	mg/kg	NC	50		
3399837	Tetrachloroethene	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,2-dichloroethene	2009/09/06	112	60 - 140	108	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,3-dichloropropene	2009/09/06	53(1)	60 - 140	52(2)	60 - 140	<0.05	mg/kg	NC	50		
3399837	Trichloroethene	2009/09/06	113	60 - 140	109	60 - 140	<0.01	mg/kg	NC	50		
3399837	Trichlorofluoromethane	2009/09/06	108	40 - 150	105	40 - 150	<0.2	mg/kg	NC	50		
3399837	Vinyl chloride	2009/09/06	22(1)	40 - 150	20(2)	40 - 150	<0.08	mg/kg	NC	50		
3399837	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	50		
3399837	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	50		
3399909	F1 (C06-C10)	2009/09/07					<10	mg/kg	NC	50	87	80 - 120
3399912	F1 (C06-C10)	2009/09/06					<10	mg/kg	NC	50	97	80 - 120
3400091	O-TERPHENYL (sur.)	2009/09/08			96	50 - 130	101	%				
3400091	F2 (C10-C16 Hydrocarbons)	2009/09/08			98	80 - 120	<10	mg/kg	NC	40		

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400091	F3 (C16-C34 Hydrocarbons)	2009/09/08			105	80 - 120	<10	mg/kg	32.3	40		
3400091	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.3	40		
3400091	Reached Baseline at C50	2009/09/08			YES	N/A	YES, RDL=N/A	mg/kg	NC	50		
3400175	D10-ANTHRACENE (sur.)	2009/09/08			92	30 - 130	118	%				
3400175	D12-BENZO(A)PYRENE (sur.)	2009/09/08			88	30 - 130	111	%				
3400175	D8-ACENAPHTHYLENE (sur.)	2009/09/08			87	30 - 130	107	%				
3400175	TERPHENYL-D14 (sur.)	2009/09/08			86	30 - 130	108	%				
3400175	Naphthalene	2009/09/08			107	40 - 130	<0.01	mg/kg	NC	50		
3400175	2-Methylnaphthalene	2009/09/08			108	40 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthylene	2009/09/08			94	40 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthene	2009/09/08			99	40 - 130	<0.01	mg/kg	NC	50		
3400175	Fluorene	2009/09/08			96	40 - 130	<0.01	mg/kg	NC	50		
3400175	Phenanthrene	2009/09/08			110	40 - 130	<0.01	mg/kg	NC	50		
3400175	Anthracene	2009/09/08			106	40 - 130	<0.01	mg/kg	NC	50		
3400175	Fluoranthene	2009/09/08			106	40 - 130	<0.01	mg/kg	NC	50		
3400175	Pyrene	2009/09/08			100	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)anthracene	2009/09/08			101	40 - 130	<0.01	mg/kg	NC	50		
3400175	Chrysene	2009/09/08			100	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(b&j)fluoranthene	2009/09/08			106	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(k)fluoranthene	2009/09/08			108	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)pyrene	2009/09/08			105	40 - 130	<0.01	mg/kg	NC	50		
3400175	Indeno(1,2,3-cd)pyrene	2009/09/08			93	40 - 130	<0.02	mg/kg	NC	50		
3400175	Dibenz(a,h)anthracene	2009/09/08			93	40 - 130	<0.02	mg/kg	NC	50		
3400175	Benzo(g,h,i)perylene	2009/09/08			90	40 - 130	<0.02	mg/kg	NC	50		
3400184	D10-ANTHRACENE (sur.)	2009/09/09			92	30 - 130	115	%				
3400184	D12-BENZO(A)PYRENE (sur.)	2009/09/09			93	30 - 130	109	%				
3400184	D8-ACENAPHTHYLENE (sur.)	2009/09/09			92	30 - 130	103	%				
3400184	TERPHENYL-D14 (sur.)	2009/09/09			91	30 - 130	104	%				
3400184	Naphthalene	2009/09/09			101	40 - 130	<0.01	mg/kg	22.0	50		
3400184	2-Methylnaphthalene	2009/09/09			103	40 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthylene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthene	2009/09/09			97	40 - 130	<0.01	mg/kg	NC	50		
3400184	Fluorene	2009/09/09			100	40 - 130	<0.01	mg/kg	NC	50		
3400184	Phenanthrene	2009/09/09			99	40 - 130	<0.01	mg/kg	NC	50		
3400184	Anthracene	2009/09/09			98	40 - 130	<0.01	mg/kg	NC	50		
3400184	Fluoranthene	2009/09/09			97	40 - 130	<0.01	mg/kg	NC	50		
3400184	Pyrene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)anthracene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3400184	Chrysene	2009/09/09			92	40 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(b&j)fluoranthene	2009/09/09			94	40 - 130	<0.01	mg/kg	NC	50		

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400184	Benzo(k)fluoranthene	2009/09/09			100	40 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)pyrene	2009/09/09			95	40 - 130	<0.01	mg/kg	NC	50		
3400184	Indeno(1,2,3-cd)pyrene	2009/09/09			97	40 - 130	<0.02	mg/kg	NC	50		
3400184	Dibenz(a,h)anthracene	2009/09/09			94	40 - 130	<0.02	mg/kg	NC	50		
3400184	Benzo(g,h,i)perylene	2009/09/09			97	40 - 130	<0.02	mg/kg	NC	50		
3401373	D10-ANTHRACENE (sur.)	2009/09/09			96	30 - 130	116	%				
3401373	D12-BENZO(A)PYRENE (sur.)	2009/09/09			92	30 - 130	106	%				
3401373	D8-ACENAPHTHYLENE (sur.)	2009/09/09			95	30 - 130	103	%				
3401373	TERPHENYL-D14 (sur.)	2009/09/09			92	30 - 130	102	%				
3401373	Naphthalene	2009/09/09			94	40 - 130	<0.01	mg/kg	NC	50		
3401373	2-Methylnaphthalene	2009/09/09			97	40 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthylene	2009/09/09			88	40 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthene	2009/09/09			96	40 - 130	<0.01	mg/kg	NC	50		
3401373	Fluorene	2009/09/09			99	40 - 130	<0.01	mg/kg	NC	50		
3401373	Phenanthrene	2009/09/09			101	40 - 130	<0.01	mg/kg	NC	50		
3401373	Anthracene	2009/09/09			89	40 - 130	<0.01	mg/kg	NC	50		
3401373	Fluoranthene	2009/09/09			95	40 - 130	<0.01	mg/kg	NC	50		
3401373	Pyrene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)anthracene	2009/09/09			90	40 - 130	<0.01	mg/kg	NC	50		
3401373	Chrysene	2009/09/09			89	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(b&j)fluoranthene	2009/09/09			92	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(k)fluoranthene	2009/09/09			93	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)pyrene	2009/09/09			94	40 - 130	<0.01	mg/kg	NC	50		
3401373	Indeno(1,2,3-cd)pyrene	2009/09/09			89	40 - 130	<0.02	mg/kg	NC	50		
3401373	Dibenz(a,h)anthracene	2009/09/09			89	40 - 130	<0.02	mg/kg	NC	50		
3401373	Benzo(g,h,i)perylene	2009/09/09			89	40 - 130	<0.02	mg/kg	NC	50		
3401543	Total Arsenic (As)	2009/09/09			100	75 - 125	<0.2	mg/kg	0.6	30	92	70 - 130
3401543	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3401543	Total Cadmium (Cd)	2009/09/09			103	75 - 125	<0.05	mg/kg	0.05	30	83	70 - 130
3401543	Total Chromium (Cr)	2009/09/09			102	75 - 125	<1	mg/kg	3.8	30	98	70 - 130
3401543	Total Cobalt (Co)	2009/09/09			102	75 - 125	<0.3	mg/kg	2.6	30	94	70 - 130
3401543	Total Copper (Cu)	2009/09/09			103	75 - 125	<0.5	mg/kg	0.4	30	94	70 - 130
3401543	Total Lead (Pb)	2009/09/09			100	75 - 125	<0.1	mg/kg	1.9	35	98	70 - 130
3401543	Total Mercury (Hg)	2009/09/09			107	75 - 125	<0.05	mg/kg	NC	35		
3401543	Total Nickel (Ni)	2009/09/09			104	75 - 125	<0.8	mg/kg	1.2	30	94	70 - 130
3401543	Total Selenium (Se)	2009/09/09			107	75 - 125	<0.5	mg/kg	NC	30		
3401543	Total Vanadium (V)	2009/09/09			122	75 - 125	2, RDL=2	mg/kg	0.9	30	124	70 - 130
3401543	Total Zinc (Zn)	2009/09/09			108	75 - 125	<1	mg/kg	1.4	30	97	70 - 130
3401543	Total Aluminum (Al)	2009/09/09					<100	mg/kg	1	35	107	70 - 130
3401543	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	1.4	30	100	70 - 130

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401543	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	1	35	111	70 - 130
3401543	Total Calcium (Ca)	2009/09/09					<100	mg/kg	0.5	30	91	70 - 130
3401543	Total Iron (Fe)	2009/09/09					<100	mg/kg	2.1	30	102	70 - 130
3401543	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.1	30	99	70 - 130
3401543	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	7.2	30	100	70 - 130
3401543	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	2.3	35	91	70 - 130
3401543	Total Phosphorus (P)	2009/09/09					<10	mg/kg	5.1	30	101	70 - 130
3401543	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	1.5	35	95	70 - 130
3401543	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	1.5	35	102	70 - 130
3401543	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	90	70 - 130
3401543	Total Titanium (Ti)	2009/09/09					<1	mg/kg	2.2	35	120	70 - 130
3401543	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	8.9	30		
3401543	Total Potassium (K)	2009/09/09					<100	mg/kg	4.8	35		
3401543	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401543	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	3.9	35		
3401543	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	17.3	30		
3401600	Total Arsenic (As)	2009/09/09	101	75 - 125	97	75 - 125	<0.2	mg/kg	2.3	30	83	70 - 130
3401600	Total Beryllium (Be)	2009/09/09	106	75 - 125	97	75 - 125	<0.1	mg/kg	NC	30		
3401600	Total Cadmium (Cd)	2009/09/09	106	75 - 125	98	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3401600	Total Chromium (Cr)	2009/09/09	109	75 - 125	103	75 - 125	<1	mg/kg	12.0	30	97	70 - 130
3401600	Total Cobalt (Co)	2009/09/09	104	75 - 125	103	75 - 125	<0.3	mg/kg	8.5	30	88	70 - 130
3401600	Total Copper (Cu)	2009/09/09	104	75 - 125	103	75 - 125	<0.5	mg/kg	11.1	30	89	70 - 130
3401600	Total Lead (Pb)	2009/09/09	103	75 - 125	100	75 - 125	<0.1	mg/kg	8.6	35	91	70 - 130
3401600	Total Mercury (Hg)	2009/09/09	107	75 - 125	106	75 - 125	<0.05	mg/kg	NC	35		
3401600	Total Nickel (Ni)	2009/09/09	102	75 - 125	101	75 - 125	<0.8	mg/kg	9.7	30	89	70 - 130
3401600	Total Selenium (Se)	2009/09/09	111	75 - 125	108	75 - 125	<0.5	mg/kg	NC	30		
3401600	Total Vanadium (V)	2009/09/09	NC	75 - 125	122	75 - 125	<2	mg/kg	10.1	30	119	70 - 130
3401600	Total Zinc (Zn)	2009/09/09	105	75 - 125	108	75 - 125	<1	mg/kg	12.8	30	92	70 - 130
3401600	Total Aluminum (Al)	2009/09/09					<100	mg/kg	12.0	35	103	70 - 130
3401600	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	83	70 - 130
3401600	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	8.7	35	103	70 - 130
3401600	Total Calcium (Ca)	2009/09/09					<100	mg/kg	4.2	30	89	70 - 130
3401600	Total Iron (Fe)	2009/09/09					<100	mg/kg	10.1	30	96	70 - 130
3401600	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.5	30	95	70 - 130
3401600	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	6.2	30	93	70 - 130
3401600	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	NC	35	94	70 - 130
3401600	Total Phosphorus (P)	2009/09/09					<10	mg/kg	2.8	30	94	70 - 130
3401600	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	84	70 - 130
3401600	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	8.0	35	94	70 - 130
3401600	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	78	70 - 130

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401600	Total Titanium (Ti)	2009/09/09					<1	mg/kg	11.0	35	113	70 - 130
3401600	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3401600	Total Potassium (K)	2009/09/09					<100	mg/kg	7.2	35		
3401600	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401600	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3401600	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	11.5	30		
3402570	Total Arsenic (As)	2009/09/10			101	75 - 125	<0.2	mg/kg	3.2	30	90	70 - 130
3402570	Total Beryllium (Be)	2009/09/10			103	75 - 125	<0.1	mg/kg	NC	30		
3402570	Total Cadmium (Cd)	2009/09/10			101	75 - 125	<0.05	mg/kg	2.3	30	78	70 - 130
3402570	Total Chromium (Cr)	2009/09/10			102	75 - 125	<1	mg/kg	1.3	30	88	70 - 130
3402570	Total Cobalt (Co)	2009/09/10			104	75 - 125	<0.3	mg/kg	1.2	30	87	70 - 130
3402570	Total Copper (Cu)	2009/09/10			106	75 - 125	<0.5	mg/kg	1.5	30	88	70 - 130
3402570	Total Lead (Pb)	2009/09/10			101	75 - 125	<0.1	mg/kg	1.3	35	93	70 - 130
3402570	Total Mercury (Hg)	2009/09/10			109	75 - 125	<0.05	mg/kg	NC	35		
3402570	Total Nickel (Ni)	2009/09/10			103	75 - 125	<0.8	mg/kg	0.9	30	86	70 - 130
3402570	Total Selenium (Se)	2009/09/10			108	75 - 125	<0.5	mg/kg	NC	30		
3402570	Total Vanadium (V)	2009/09/10			123	75 - 125	<2	mg/kg	2.3	30	110	70 - 130
3402570	Total Zinc (Zn)	2009/09/10			110	75 - 125	<1	mg/kg	3.4	30	90	70 - 130
3402570	Total Aluminum (Al)	2009/09/10					<100	mg/kg	15.4	35	88	70 - 130
3402570	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	89	70 - 130
3402570	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	2.3	35	106	70 - 130
3402570	Total Calcium (Ca)	2009/09/10					<100	mg/kg	4.6	30	89	70 - 130
3402570	Total Iron (Fe)	2009/09/10					<100	mg/kg	1	30	93	70 - 130
3402570	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.6	30	91	70 - 130
3402570	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	3.6	30	96	70 - 130
3402570	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	6.2	35	74	70 - 130
3402570	Total Phosphorus (P)	2009/09/10					<10	mg/kg	1.7	30	104	70 - 130
3402570	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	88	70 - 130
3402570	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	1.6	35	97	70 - 130
3402570	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	76	70 - 130
3402570	Total Titanium (Ti)	2009/09/10					<1	mg/kg	1.6	35	105	70 - 130
3402570	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402570	Total Potassium (K)	2009/09/10					<100	mg/kg	13.1	35		
3402570	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402570	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402570	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3402612	Total Arsenic (As)	2009/09/10			103	75 - 125	<0.2	mg/kg	0.6	30	86	70 - 130
3402612	Total Beryllium (Be)	2009/09/10			107	75 - 125	<0.1	mg/kg	NC	30		
3402612	Total Cadmium (Cd)	2009/09/10			103	75 - 125	<0.05	mg/kg	NC	30	81	70 - 130
3402612	Total Chromium (Cr)	2009/09/10			106	75 - 125	<1	mg/kg	1.3	30	91	70 - 130

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3402612	Total Cobalt (Co)	2009/09/10			107	75 - 125	<0.3	mg/kg	1.4	30	89	70 - 130
3402612	Total Copper (Cu)	2009/09/10			109	75 - 125	<0.5	mg/kg	4.8	30	88	70 - 130
3402612	Total Lead (Pb)	2009/09/10			106	75 - 125	<0.1	mg/kg	0.8	35	95	70 - 130
3402612	Total Mercury (Hg)	2009/09/10			112	75 - 125	<0.05	mg/kg	NC	35		
3402612	Total Nickel (Ni)	2009/09/10			105	75 - 125	<0.8	mg/kg	2.3	30	88	70 - 130
3402612	Total Selenium (Se)	2009/09/10			114	75 - 125	<0.5	mg/kg	NC	30		
3402612	Total Vanadium (V)	2009/09/10			115	75 - 125	<2	mg/kg	2.0	30	113	70 - 130
3402612	Total Zinc (Zn)	2009/09/10			115	75 - 125	<1	mg/kg	10.2	30	95	70 - 130
3402612	Total Aluminum (Al)	2009/09/10					<100	mg/kg	3.1	35	96	70 - 130
3402612	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	86	70 - 130
3402612	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	1.2	35	107	70 - 130
3402612	Total Calcium (Ca)	2009/09/10					<100	mg/kg	1.6	30	101	70 - 130
3402612	Total Iron (Fe)	2009/09/10					<100	mg/kg	7.4	30	87	70 - 130
3402612	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.2	30	111	70 - 130
3402612	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	7.5	30	99	70 - 130
3402612	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	NC	35	83	70 - 130
3402612	Total Phosphorus (P)	2009/09/10					<10	mg/kg	2.1	30	93	70 - 130
3402612	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	86	70 - 130
3402612	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	9.2	35	100	70 - 130
3402612	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	79	70 - 130
3402612	Total Titanium (Ti)	2009/09/10					<1	mg/kg	4.5	35	108	70 - 130
3402612	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402612	Total Potassium (K)	2009/09/10					<100	mg/kg	5.1	35		
3402612	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402612	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402612	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3404758	Total Arsenic (As)	2009/09/09			98	75 - 125	<0.2	mg/kg	5.0	30	86	70 - 130
3404758	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3404758	Total Cadmium (Cd)	2009/09/09			100	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Chromium (Cr)	2009/09/09			97	75 - 125	<1	mg/kg	0.1	30	92	70 - 130
3404758	Total Cobalt (Co)	2009/09/09			99	75 - 125	<0.3	mg/kg	0.2	30	86	70 - 130
3404758	Total Copper (Cu)	2009/09/09			101	75 - 125	<0.5	mg/kg	1.4	30	86	70 - 130
3404758	Total Lead (Pb)	2009/09/09			97	75 - 125	<0.1	mg/kg	0.3	35	94	70 - 130
3404758	Total Mercury (Hg)	2009/09/09			104	75 - 125	<0.05	mg/kg	NC	35		
3404758	Total Nickel (Ni)	2009/09/09			94	75 - 125	<0.8	mg/kg	1.5	30	87	70 - 130
3404758	Total Selenium (Se)	2009/09/09			106	75 - 125	<0.5	mg/kg	NC	30		
3404758	Total Vanadium (V)	2009/09/09			121	75 - 125	<2	mg/kg	1.7	30	123	70 - 130
3404758	Total Zinc (Zn)	2009/09/09			102	75 - 125	<1	mg/kg	1.9	30	88	70 - 130
3404758	Total Aluminum (Al)	2009/09/09					<100	mg/kg	8.6	35	105	70 - 130
3404758	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	103	70 - 130

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3404758	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	0.04	35	109	70 - 130
3404758	Total Calcium (Ca)	2009/09/09					<100	mg/kg	1.5	30	90	70 - 130
3404758	Total Iron (Fe)	2009/09/09					<100	mg/kg	3.3	30	93	70 - 130
3404758	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	1.9	30	95	70 - 130
3404758	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	0.7	30	95	70 - 130
3404758	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	8.5	35	89	70 - 130
3404758	Total Phosphorus (P)	2009/09/09					<10	mg/kg	3.6	30	91	70 - 130
3404758	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	94	70 - 130
3404758	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	0.04	35	99	70 - 130
3404758	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Titanium (Ti)	2009/09/09					<1	mg/kg	0.2	35	113	70 - 130
3404758	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3404758	Total Potassium (K)	2009/09/09					<100	mg/kg	11.5	35		
3404758	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3404758	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3404758	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	NC	30		
3404986	Extractable (Water) SULFOLANE (sur.)	2009/09/10			100	60 - 140	98	%				
3404986	Extractable (Water) Ethylene Glycol	2009/09/10			106	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Diethylene Glycol	2009/09/10			108	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Triethylene Glycol	2009/09/10			114	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Tetraethylene Glycol	2009/09/10			126	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Propylene Glycol	2009/09/10			97	30 - 130	<10	mg/kg	NC	40		
3405247	O-TERPHENYL (sur.)	2009/09/09			80	50 - 130	88	%				
3405247	F2 (C10-C16 Hydrocarbons)	2009/09/09	99	50 - 130	104	80 - 120	<10	mg/kg	NC	40		
3405247	F3 (C16-C34 Hydrocarbons)	2009/09/09	102	50 - 130	103	80 - 120	<10	mg/kg	NC	40		
3405247	F4 (C34-C50 Hydrocarbons)	2009/09/09	99	50 - 130	100	80 - 120	<10	mg/kg	NC	40		
3405247	Reached Baseline at C50	2009/09/09							NC	50		
3407604	Soluble (2:1) pH	2009/09/11			100	96 - 104			0	20		
3410083	O-TERPHENYL (sur.)	2009/09/11			88	50 - 130	92	%				
3410083	F2 (C10-C16 Hydrocarbons)	2009/09/11	109	50 - 130	99	80 - 120	<10	mg/kg	NC	40		
3410083	F3 (C16-C34 Hydrocarbons)	2009/09/11	116	50 - 130	102	80 - 120	<10	mg/kg	5.1	40		
3410083	F4 (C34-C50 Hydrocarbons)	2009/09/11	121	50 - 130	111	80 - 120	<10	mg/kg	NC	40		
3410083	Reached Baseline at C50	2009/09/11							NC	50		

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3410846	Soluble (2:1) pH	2009/09/12			100	96 - 104			0.8	20		
3412134	Soluble (2:1) pH	2009/09/12			100	96 - 104			0	20		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) - LCS outside acceptance criteria (10% of analytes failure allowed)

Maxxam Analytics - Partial/Rush Results

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80795 A-947822

CHAIN OF CUSTODY

Page: 1 of 48

Invoice To: Require Report? Yes ☐ No ☐

Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: jsmith@franzenvironmental.com and jkeenliside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1743-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PCB	VOC	PAH	WATERS: BTEX F1 ☐ VOCs	BTEX F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[2] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	3-09-1-1	S	09/08/29	X								X	X											3
2	3-09-2-1	S			X																			2
3	3-09-2-2	S		X								[illegible]	[illegible]											2
4	3-09-3-1	S																					X	2
5	3-09-3-2	S		X																				1
6	3-09-4H1	S																					X	3
7	3-09-4H2	S		X	X																			3
8	3-09-4H-3	S		X							X	X	X											3
9	3-09-DUP-1	S		X								X	X											3
10	3-09-5H-1	S																					X	3
11	3-09-5H-2	S		X																				3
12	3-09-5H-3	S																					X	3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Viviane Date/Time: Aug 31 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 1590	2.2.2 4.5.6 9.9.9	9.1.0.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80794 **CHAIN OF CUSTODY** Page: 2 of 8

Invoice To: Require Report? Yes ☐ No ☐

Company Name: FRANZ ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND ST. VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9941

Report To:

Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS: BTEX F1 ☐ VOCs	BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[4] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): 8 glycols	Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	3-09-6M-1	S	2009/08/29																				X	3
2	3-09-6M-2	S																					X	3
3	3-09-6M-3	S		X																				3
4	3-09-DUP-2	S		X																				3
5	1-09-1M-1	S		X																				5
6	1-09-2M-1	S		X			X				X	X	X									X	X	5
7	1-09-3M-1	S		X			X																	5
8																								
9																								
10																								
11																								
12																								

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vicki Dolo **Date/Time:** Aug 31, 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15 50	2.1 2 9.10.9	
	CUSTODY SEAL YES / NO	4.5.6 9.9.9	

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80792

CHAIN OF CUSTODY

Page: 3 of 8

Invoice To: Require Report? Yes ☐ No ☐

Company Name: Franz environmental
Contact Name: 308-1080 mainland
Address: Vancouver
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
jsmith@franzenvironmental.com
and jvanliside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: FAB-0901
Project Name: Cambridge Bay
Location:
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☑ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS: ☐ VOCs	☐ BTEX F1 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	1-09-4M-1	S	2009/08/30	X			X																	2
2	1-09-SM-1	S		X			X				X													2
3	1-09-6M-1	S		X	X		X				X	X	X											3
4	1-09-DUP-1	S		X																				2
5	4a-09-1M-1	S		X																				3
6	4a-09-2M-1	S		X																				3
7	4a-09-3M-1	S		X			X				X		X											3
8	4a-09-DUP-1	S		X																				3
9	4A-09-4-1	S		X			X				X		X											3
10	4A-09-5-1	S		X			X				X		X											3
11	4A-09-6-1	S		X																				3
12	4A-09-6-2	S		X																				3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vicaire Dolo Date/Time: Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By 09/09/12 MA 15:50	Temperature 2/2/12 4/5/6 9/9/9	Ice 9/09/09
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80793 **CHAIN OF CUSTODY** Page: 4 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND ST VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: SAME AS invoice
jsmith@franzenvironmental.com and jteenhuis@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: MC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[2]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	4A-09-71	S	2009/08/30	X																3
2	4A-09-8-1	S	2009/08/30	X																3
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivian Dodd **Date/Time:** Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 02/09/09 15:50	2,2,2 4,5,6 9,9,9	9,10,9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80791 **CHAIN OF CUSTODY**
Page: 5 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
JSmith@franzenvironmental.com and jkennedside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 7448-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb- ☐ F	Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Filtered	REGULATED METALS (CCME / AT1)[2]	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	5-09TP3-3	S	2009/08/30																				X	3
2	5-09TP3-4	S		[illegible]			[illegible]				[illegible]	[illegible]											X	3
3	5-09TP4-1	S																					X	3
4	5-09TP4-2	S																					X	3
5	5-09TP4[illegible]-3	S		X			X				X	X												3
6	6-09TP1-2	S																					X	3
7	6-09TP1-1	S																					X	3
8	6-09TP1-3	S		X			X				X	X												3
9	[illegible] BG-1	S					X																	1
10	BG2	S					X																	1
11	BG-3	S					X																	1
12																								

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

MaxXam Job #:

Relinquished By: Vanessa Date **Date/Time:** Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2,2,2 4,5,6 9,9,9	9,10,9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80785 **CHAIN OF CUSTODY** # 6 Page: 6 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name:
Address: James Smith - Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To: James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☑ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	☐ Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Tier1 ☐ F	REGULATED METALS (CCME / AT1)[3]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	5-09-TP1-1	S	2009/08/30	X			X				X	X										3
2	5-09-TP1-2	S																			X	3
3	5-09-TP1-3	S																			X	3
4	5-09-TP2-1	S		X			X				X	X										3
5	5-09-TP2-2	S																			X	3
6	5-09-TP2-3	S																			X	3
7	5-09-TP3-1	S		X			X				X	X										3
8	5-09-TP3-2	S																			X	3
9																						
10																						
11																						
12																						

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vanessa Stolz **Date/Time:** Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 4.5.6. 9.9.9. 9.10.9	
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80786 **CHAIN OF CUSTODY** Page: 7 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: VANCOUVER
Prov: PC:
Contact #s: Ph: 604-632-9941 Fax:

Report To: James Smith
jsmith@franzenvironmental.com
jkeenliside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0991
Project Name: Cambridge Bay
Location:
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOCs	PAH	PCB	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[2]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): Restriction?	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP1 1	S	2009/08/29										X											5
2	2-09-TP1-2	S		X			X				X													3
3	2-09TP2-1	S																					X	5
4	2-09-TP2-2	S		X			X				X	X	X								X			5
5	2-09-TP3-1	S		X			X				X	X	X											3
6	2-09-TP3-2	S																					X	3
7	2-09-TP4	S		X			X				X													3
8	2-09-TP5-1	S		X			X				X													3
9	2-09-TP6-1	S		X			X				X													3
10	2-09-TP7-1	S		X			X				X													3
11	2-09-TP8-1	S		X			X														X			3
12	2-09-TP9-1	S	↓	X			X					X	X											3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Viviane Dolet Date/Time: Aug 31/2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2,2,2 4,5,6 9,9,9	9,10,9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80787 **CHAIN OF CUSTODY** Page: 8 of 8

Invoice To: Require Report? Yes ☒ No ☐
Company Name: Fraser environmental
Contact Name:
Address: Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To:
James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1348-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOCs	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[1]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP10-1	S	2009/08/29	X			X				X											3
2	GR2	S	2009/08/29	X			X				X									{ if not enough jars just perform BTEX/metals }		3
3	2-09-TPDUP-1	S	2009/08/29	X			X				X											2
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivienne Dodo **Date/Time:** Aug 31 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 4.5.6. 9.9.9.	9.10.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Your Project #: A947822
Your C.O.C. #: n/a

Attention: Kimberley Webber
Maxxam Analytics
8577 Commerce Crt
Burnaby, BC
V5A 4N5

Report Date: 2009/09/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B6098
Received: 2009/09/04, 10:40

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
MOISTURE	8	N/A	2009/09/09	CAM SOP-00445	McKeague 2nd ed 1978
OC Pesticides (Selected) & PCB (1)	3	2009/09/09	2009/09/09	CAM SOP-00307	SW846 8081, 8082
Polychlorinated Biphenyl in Soil	7	2009/09/08	2009/09/08	CAM SOP-00309	SW846 8082

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

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DP3378	DP3379	DP3380	DP3381	DP3382		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**Q57104 \ 2-09-TP3-1**	**RDL**	**QC Batch**
Moisture	%	9.8	8.7	11	22	5.9	0.2	1933152

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DP3383	DP3384	DP7276		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q57110 \ 2-09-TP8-1**	**Q57111 \ 2-09-TP9-1**	**Q56940 \ 3-09-4M-3**	**RDL**	**QC Batch**
Moisture	%	14	18	8.9	0.2	1933152

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3379	DP3380	DP3381		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**RDL**	**QC Batch**
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Total PCB	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Surrogate Recovery (%)							
2,4,5,6-Tetrachloro-m-xylene	%	76	83	77	89	N/A	1931812
Decachlorobiphenyl	%	79	80	74	75	N/A	1931812

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3382	DP3384	DP7276		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q57104 \ 2-09-TP3-1**	**Q57111 \ 2-09-TP9-1**	**Q56940 \ 3-09-4M-3**	**RDL**	**QC Batch**
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Total PCB	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	70	68	65	N/A	1931812
Decachlorobiphenyl	%	75	69	70	N/A	1931812

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Hexachlorobutadiene	ug/g	<0.01	<0.01	<0.01	0.01	1933312
Aldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
b-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
d-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
g-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Chlordane (Total)	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD + p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE + p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT + p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
DDT+ Metabolites	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Dieldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan I	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan II	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan sulfate	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Total Endosulfan	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin aldehyde	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin ketone	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor epoxide	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Hexachlorobenzene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Lindane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Methoxychlor	ug/g	<0.008	<0.008	<0.008	0.008	1933312
Mirex	ug/g	<0.002	<0.002	<0.002	0.002	1933312

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Octachlorostyrene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Toxaphene	ug/g	<0.08	<0.08	<0.08	0.08	1933312
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	73	70	73	N/A	1933312
Decachlorobiphenyl	%	90	91	93	N/A	1933312

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

Package 1	8.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report

Maxxam Job Number: MA9B6098

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1931812	LGA	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2009/09/08		94	%	40 - 130
			Decachlorobiphenyl	2009/09/08		85	%	40 - 130
			Aroclor 1260	2009/09/08		112	%	30 - 130
			Total PCB	2009/09/08		112	%	30 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/08		100	%	40 - 130
			Decachlorobiphenyl	2009/09/08		83	%	40 - 130
			Aroclor 1260	2009/09/08		108	%	30 - 130
			Total PCB	2009/09/08		108	%	30 - 130
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/08		96	%	40 - 130
			Decachlorobiphenyl	2009/09/08		83	%	40 - 130
			Aroclor 1262	2009/09/08	<0.01		ug/g	
			Aroclor 1016	2009/09/08	<0.01		ug/g	
			Aroclor 1221	2009/09/08	<0.01		ug/g	
			Aroclor 1232	2009/09/08	<0.01		ug/g	
			Aroclor 1242	2009/09/08	<0.01		ug/g	
			Aroclor 1248	2009/09/08	<0.01		ug/g	
			Aroclor 1254	2009/09/08	<0.01		ug/g	
			Aroclor 1260	2009/09/08	<0.01		ug/g	
			Aroclor 1268	2009/09/08	<0.01		ug/g	
			Total PCB	2009/09/08	<0.01		ug/g	
		RPD	Aroclor 1262	2009/09/08	NC		%	50
			Aroclor 1016	2009/09/08	NC		%	50
			Aroclor 1221	2009/09/08	NC		%	50
			Aroclor 1232	2009/09/08	NC		%	50
			Aroclor 1242	2009/09/08	NC		%	50
			Aroclor 1248	2009/09/08	NC		%	50
			Aroclor 1254	2009/09/08	NC		%	50
			Aroclor 1260	2009/09/08	NC		%	50
			Aroclor 1268	2009/09/08	NC		%	50
			Total PCB	2009/09/08	NC		%	50
1933152	FF	RPD	Moisture	2009/09/09	0.6		%	50
1933312	DH	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2009/09/09		45	%	40 - 130
			Decachlorobiphenyl	2009/09/09		87	%	40 - 130
			Hexachlorobutadiene	2009/09/09		34	%	N/A
			Aldrin	2009/09/09		68	%	40 - 130
			a-BHC	2009/09/09		54	%	40 - 130
			b-BHC	2009/09/09		75	%	40 - 130
			d-BHC	2009/09/09		89	%	40 - 130
			a-Chlordane	2009/09/09		79	%	40 - 130
			g-Chlordane	2009/09/09		86	%	40 - 130
			o,p-DDD	2009/09/09		89	%	40 - 130
			p,p-DDD	2009/09/09		93	%	40 - 130
			o,p-DDE	2009/09/09		81	%	40 - 130
			p,p-DDE	2009/09/09		86	%	40 - 130
			o,p-DDT	2009/09/09		85	%	40 - 130
			p,p-DDT	2009/09/09		99	%	40 - 130
			Dieldrin	2009/09/09		90	%	40 - 130
			Endosulfan I	2009/09/09		79	%	40 - 130
			Endosulfan II	2009/09/09		95	%	40 - 130
			Endosulfan sulfate	2009/09/09		92	%	40 - 130
			Endrin	2009/09/09		85	%	40 - 130
			Endrin aldehyde	2009/09/09		77	%	40 - 130
			Endrin ketone	2009/09/09		99	%	40 - 130
			Heptachlor	2009/09/09		59	%	40 - 130
			Heptachlor epoxide	2009/09/09		71	%	40 - 130

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA9B6098

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1933312	DH	Matrix Spike	Hexachlorobenzene	2009/09/09		53	%	20 - 130
			Lindane	2009/09/09		71	%	40 - 130
			Methoxychlor	2009/09/09		87	%	40 - 130
			Mirex	2009/09/09		87	%	40 - 130
			Octachlorostyrene	2009/09/09		76	%	40 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/09		67	%	40 - 130
			Decachlorobiphenyl	2009/09/09		84	%	40 - 130
			Hexachlorobutadiene	2009/09/09		73	%	N/A
			Aldrin	2009/09/09		79	%	40 - 130
			a-BHC	2009/09/09		69	%	40 - 130
			b-BHC	2009/09/09		79	%	40 - 130
			d-BHC	2009/09/09		94	%	40 - 130
			a-Chlordane	2009/09/09		83	%	40 - 130
			g-Chlordane	2009/09/09		89	%	40 - 130
			o,p-DDD	2009/09/09		90	%	40 - 130
			p,p-DDD	2009/09/09		104	%	40 - 130
			o,p-DDE	2009/09/09		87	%	40 - 130
			p,p-DDE	2009/09/09		87	%	40 - 130
			o,p-DDT	2009/09/09		97	%	40 - 130
			p,p-DDT	2009/09/09		114	%	40 - 130
			Dieldrin	2009/09/09		95	%	40 - 130
			Endosulfan I	2009/09/09		85	%	40 - 130
			Endosulfan II	2009/09/09		101	%	40 - 130
			Endosulfan sulfate	2009/09/09		95	%	40 - 130
			Endrin	2009/09/09		92	%	40 - 130
			Endrin aldehyde	2009/09/09		112	%	40 - 130
			Endrin ketone	2009/09/09		100	%	40 - 130
			Heptachlor	2009/09/09		68	%	40 - 130
			Heptachlor epoxide	2009/09/09		74	%	40 - 130
			Hexachlorobenzene	2009/09/09		67	%	20 - 130
			Lindane	2009/09/09		87	%	40 - 130
			Methoxychlor	2009/09/09		94	%	40 - 130
			Mirex	2009/09/09		83	%	40 - 130
			Octachlorostyrene	2009/09/09		90	%	40 - 130
		RPD	Toxaphene	2009/09/09	NC		%	50
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/09		68	%	40 - 130
			Decachlorobiphenyl	2009/09/09		89	%	40 - 130
			Hexachlorobutadiene	2009/09/09	<0.01		ug/g	
			Aldrin	2009/09/09	<0.002		ug/g	
			a-BHC	2009/09/09	<0.002		ug/g	
			b-BHC	2009/09/09	<0.002		ug/g	
			d-BHC	2009/09/09	<0.002		ug/g	
			a-Chlordane	2009/09/09	<0.002		ug/g	
			g-Chlordane	2009/09/09	<0.002		ug/g	
			Chlordane (Total)	2009/09/09	<0.002		ug/g	
			o,p-DDD	2009/09/09	<0.002		ug/g	
			p,p-DDD	2009/09/09	<0.002		ug/g	
			o,p-DDD + p,p-DDD	2009/09/09	<0.002		ug/g	
			o,p-DDE	2009/09/09	<0.002		ug/g	
			p,p-DDE	2009/09/09	<0.002		ug/g	
			o,p-DDE + p,p-DDE	2009/09/09	<0.002		ug/g	
			o,p-DDT	2009/09/09	<0.002		ug/g	
			p,p-DDT	2009/09/09	<0.002		ug/g	
			o,p-DDT + p,p-DDT	2009/09/09	<0.002		ug/g	
			DDT+ Metabolites	2009/09/09	<0.002		ug/g	

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA9B6098

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1933312	DH	Method Blank	Dieldrin	2009/09/09	<0.002		ug/g	
			Endosulfan I	2009/09/09	<0.002		ug/g	
			Endosulfan II	2009/09/09	<0.002		ug/g	
			Endosulfan sulfate	2009/09/09	<0.002		ug/g	
			Total Endosulfan	2009/09/09	<0.002		ug/g	
			Endrin	2009/09/09	<0.002		ug/g	
			Endrin aldehyde	2009/09/09	<0.002		ug/g	
			Endrin ketone	2009/09/09	<0.002		ug/g	
			Heptachlor	2009/09/09	<0.002		ug/g	
			Heptachlor epoxide	2009/09/09	<0.002		ug/g	
			Hexachlorobenzene	2009/09/09	<0.002		ug/g	
			Lindane	2009/09/09	<0.002		ug/g	
			Methoxychlor	2009/09/09	<0.008		ug/g	
			Mirex	2009/09/09	<0.002		ug/g	
			Octachlorostyrene	2009/09/09	<0.002		ug/g	
			Toxaphene	2009/09/09	<0.08		ug/g	
		RPD	Hexachlorobutadiene	2009/09/09	NC		%	50
			Aldrin	2009/09/09	NC		%	50
			a-BHC	2009/09/09	NC		%	50
			b-BHC	2009/09/09	NC		%	50
			d-BHC	2009/09/09	NC		%	50
			a-Chlordane	2009/09/09	NC		%	50
			g-Chlordane	2009/09/09	NC		%	50
			Chlordane (Total)	2009/09/09	NC		%	50
			o,p-DDD	2009/09/09	NC		%	50
			p,p-DDD	2009/09/09	NC		%	50
			o,p-DDD + p,p-DDD	2009/09/09	NC		%	50
			o,p-DDE	2009/09/09	NC		%	50
			p,p-DDE	2009/09/09	NC		%	50
			o,p-DDE + p,p-DDE	2009/09/09	NC		%	50
			o,p-DDT	2009/09/09	NC		%	50
			p,p-DDT	2009/09/09	NC		%	50
			o,p-DDT + p,p-DDT	2009/09/09	NC		%	50
			DDT+ Metabolites	2009/09/09	NC		%	50
			Dieldrin	2009/09/09	NC		%	50
			Endosulfan I	2009/09/09	NC		%	50
			Endosulfan II	2009/09/09	NC		%	50
			Endosulfan sulfate	2009/09/09	NC		%	50
			Total Endosulfan	2009/09/09	NC		%	50
			Endrin	2009/09/09	NC		%	50
			Endrin aldehyde	2009/09/09	NC		%	50
			Endrin ketone	2009/09/09	NC		%	50
			Heptachlor	2009/09/09	NC		%	50
			Heptachlor epoxide	2009/09/09	NC		%	50
			Hexachlorobenzene	2009/09/09	NC		%	50
			Lindane	2009/09/09	NC		%	50
			Methoxychlor	2009/09/09	NC		%	50
			Mirex	2009/09/09	NC		%	50
			Octachlorostyrene	2009/09/09	NC		%	50

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA9B6098

reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B6098

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

CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst

CRISTINA CARRIERE, 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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1748-0901
Site: CAMBRIDGE BAY
Your C.O.C. #: 80795, 80794, 80792, 80793, 80791, 80785, 80786, 80787

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2009/09/18

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A947822
Received: 2009/09/02, 15:50

Sample Matrix: Soil
Samples Received: 47

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/MTBE Soil LH, VH, F1 SIM/MS	10	2009/09/04	2009/09/05	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	8	2009/09/04	2009/09/06	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	1	2009/09/04	2009/09/07	BRN-SOP-0304 R10.0	EPA SW846 8260B
Volatile F1-BTEX	1	N/A	2009/09/07		
Volatile F1-BTEX	17	N/A	2009/09/08		
Volatile F1-BTEX	21	N/A	2009/09/09		
Volatile F1-BTEX	3	N/A	2009/09/10		
CCME Hydrocarbons (F2-F4 in soil)	26	2009/09/04	2009/09/08	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	11	2009/09/04	2009/09/09	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	5	2009/09/04	2009/09/11	BRN SOP-00342 R9.0	CCME Soil Tier 1
Ethylene, Di, Tri & Tetraethylene glycol	1	2009/09/09	2009/09/10	BRN SOP-00307R6	Based on EPA 8015B
Elements by ICPMS (total)	8	2009/09/08	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	17	2009/09/08	2009/09/10	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	2	2009/09/09	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Particulate Mesh 200 @	3	N/A	2009/09/08	NA	NA
Moisture	42	N/A	2009/09/05	BRN SOP-00321 R5.0	Ont MOE -E 3139
PAH in Soil by GC/MS (SIM)	5	2009/09/04	2009/09/05	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	3	2009/09/04	2009/09/06	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	1	2009/09/04	2009/09/08	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	7	2009/09/04	2009/09/09	BRN SOP-00332 R9.0	Based on EPA 8270D
Total LMW, HMW, Total PAH Calc	8	N/A	2009/09/08		
Total LMW, HMW, Total PAH Calc	1	N/A	2009/09/09		
Total LMW, HMW, Total PAH Calc	7	N/A	2009/09/10		
pH (2:1 DI Water Extract) @	4	2009/09/09	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) @	4	2009/09/10	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) @	19	2009/09/11	2009/09/12	BRN SOP-00266 R6.0	Carter, SSMA 16.2
CCME F1 C6-C10 in Soil by GC/FID @	8	2009/09/04	2009/09/06		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID @	12	2009/09/04	2009/09/07		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID @	3	2009/09/04	2009/09/10		Based on EPA SW8260B
Sublet (Inorganics) @	5	N/A	2009/09/16		
VOCs in Soil by HS GC/MS	7	2009/09/04	2009/09/06	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	15	2009/09/04	2009/09/07	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	1	2009/09/04	2009/09/09	BRN SOP-00311 R8.0	Based on EPA 8260B
Pesticides, OC Soil Subcontract @	3	2009/09/11	2009/09/09		
PCB Soil Subcontract @	7	2009/09/14	2009/09/08		

* Results relate only to the items tested.

(1) This test was performed by Maxxam Ontario (From Burnaby)

Maxxam Analytics - Partial/Rush Results

(2) SCC/CAEAL
(3) SCC/CAEAL/NELAC

Encryption Key

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

KIMBERLEY WEBBER, BBY Customer Service
Email: kim.webber@maxxamanalytics.com
Phone# (604) 444-4808 Ext:259

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q56933	Q56934		Q56935		Q56937	Q56939		Q56940		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29	2009/08/29		2009/08/29		
	Units	**3-09-1-1**	**3-09-2-1**	**QC Batch**	**3-09-2-2**	**QC Batch**	**3-09-3-2**	**3-09-4M-2**	**QC Batch**	**3-09-4M-3**	**RDL**	**QC Batch**
Parameter												
Subcontract Parameter	N/A	ATTACHED		3159742			ATTACHED		3159742	ATTACHED	N/A	3145118
Physical Properties												
<200 mesh (>.075 mm)	%		43.7	3398902				59.3	3398902		0.1	
>200 mesh (<.075 mm)	%		56.3	3398902				40.8	3398902		0.1	
Moisture	%	5.6		3395524	7.3	3395624	6.5	8.4	3395524	8.9	0.3	3395524

Maxxam ID		Q56941	Q56943	Q56947	Q56948	Q56949		Q56950	Q56951		Q56978		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/30		
	Units	**3-09-DUP-1**	**3-09-5M-2**	**3-09-6M-3**	**3-09-DUP-2**	**1-09-1M-1**	**QC Batch**	**1-09-2M-1**	**1-09-3M-1**	**QC Batch**	**1-09-4M-1**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A	ATTACHED		ATTACHED			3159742	ATTACHED		2627069		N/A	
Physical Properties													
Moisture	%	5.8	5.3	10	9.5	7.4	3395524	9.1	9.5	3395524	11	0.3	3395624

Maxxam ID		Q56979	Q56980	Q56981	Q56982	Q56983	Q56984	Q56985	Q56986	Q56987		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-5M-1**	**1-09-6M-1**	**1-09-DUP-1**	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**4A-09-4-1**	**4A-09-5-1**	**RDL**	**QC Batch**
Parameter												
Subcontract Parameter	N/A		ATTACHED								N/A	3145118
Physical Properties												
<200 mesh (>.075 mm)	%		36.4								0.1	3398902
>200 mesh (<.075 mm)	%		63.6								0.1	3398902
Moisture	%	8.6	10	11	11	8.7	12	11	9.9	9.7	0.3	3395624

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q56988	Q56989	Q57022	Q57023		Q57029	Q57032	Q57059	Q57062	Q57065		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-6-1**	**4A-09-6-2**	**4A-09-7-1**	**4A-09-8-1**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**RDL**	**QC Batch**
Physical Properties													
Moisture	%	5.6	11	8.8	12	3395624	6.2	11	19	21	13	0.3	3395627

Maxxam ID		Q57100	Q57101		Q57103		Q57104	Q57106	Q57107	Q57108	Q57109		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP1-1**	**2-09-TP1-2**	**QC Batch**	**2-09-TP2-2**	**QC Batch**	**2-09-TP3-1**	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A	ATTACHED		3145118	ATTACHED	2627069	ATTACHED					N/A	3145118
Physical Properties													
Moisture	%		15	3395627	24	3395627	16	22	8.9	17	11	0.3	3395627

Maxxam ID		Q57110	Q57110		Q57111	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP8-1**	**2-09-TP8-1 Lab-Dup**	**QC Batch**	**2-09-TP9-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Parameter									
Subcontract Parameter	N/A	ATTACHED		2627069	ATTACHED			N/A	3145118
Physical Properties									
Moisture	%	9.3	10	3395627	32	27	2.4	0.3	3395627

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q56933	Q56935	Q56937	Q56939	Q56940	Q56941	Q56943	Q56947		Q56948		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29		
	Units	**3-09-1-1**	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-DUP-1**	**3-09-5M-2**	**3-09-6M-3**	**QC Batch**	**3-09-DUP-2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon													
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	16	27	<10	1700	850	3398109	860	10	3400091
F3 (C16-C34 Hydrocarbons)	mg/kg	220	<10	<10	13	17	430	30	160	3398109	180	10	3400091
F4 (C34-C50 Hydrocarbons)	mg/kg	190	<10	<10	<10	<10	190	<10	<10	3398109	<10	10	3400091
Reached Baseline at C50	mg/kg	NO	YES	YES	YES	YES	YES	YES	YES	3398109	YES	N/A	3400091
Surrogate Recovery (%)													
O-TERPHENYL (sur.)	%	89	92	102	101	100	85	97	100	3398109	106		3400091

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q56949	Q56950	Q56951		Q56978	Q56979	Q56980		Q56981	Q56981		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30		
	Units	**1-09-1M-1**	**1-09-2M-1**	**1-09-3M-1**	**QC Batch**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**QC Batch**	**1-09-DUP-1**	**1-09-DUP-1 Lab-Dup**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon													
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	3400091	<10	<10	<10	3398109	<10	<10	10	3405247
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	<10	<10	3400091	<10	10	<10	3398109	<10	14	10	3405247
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	3400091	<10	<10	<10	3398109	<10	<10	10	3405247
Reached Baseline at C50	mg/kg	YES	YES	YES	3400091	YES	YES	YES	3398109	YES	YES	N/A	3405247
Surrogate Recovery (%)													
O-TERPHENYL (sur.)	%	100	97	102	3400091	76	110	105	3398109	79	69		3405247

Maxxam ID		Q56982	Q56983	Q56984	Q56985		Q56986	Q56987	Q56988	Q56989		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**QC Batch**	**4A-09-4-1**	**4A-09-5-1**	**4A-09-6-1**	**4A-09-6-2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	740	<10	3400091	3700	12000	<10	<10	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	22	<10	140	<10	3400091	520	6400	110	27	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	<10	3400091	11	3900	94	15	10	3398109
Reached Baseline at C50	mg/kg	YES	YES	YES	YES	3400091	YES	YES	NO	NO	N/A	3398109
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	106	105	93	97	3400091	69	93	103	91		3398109

Maxxam ID		Q57022		Q57023	Q57029	Q57032	Q57059	Q57062	Q57065	Q57101	Q57103		
Sampling Date		2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-7-1**	**QC Batch**	**4A-09-8-1**	**5-09TP4-3**	**6-09TP1-3**	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon													
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	3398109	150	<10	<10	<10	<10	<10	<10	<10	10	3405247
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	3398109	120	<10	35	<10	47	350	50	19	10	3405247
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	3398109	<10	<10	<10	<10	<10	23	<10	<10	10	3405247
Reached Baseline at C50	mg/kg	YES	3398109	YES	YES	YES	YES	YES	YES	YES	YES	N/A	3405247
Surrogate Recovery (%)													
O-TERPHENYL (sur.)	%	94	3398109	82	82	70	76	87	83	91	88		3405247

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q57104	Q57106		Q57107	Q57107	Q57108		
Sampling Date		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP3-1**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**2-09-TP5-1 Lab-Dup**	**2-09-TP6-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	<10	3405247	66	63	65	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	YES	3405247	YES	YES	YES	N/A	3410083
Surrogate Recovery (%)									
O-TERPHENYL (sur.)	%	84	77	3405247	91	91	97		3410083

Maxxam ID		Q57109		Q57110	Q57111		Q57114	Q57115		
Sampling Date		2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29		
	Units	**2-09-TP7-1**	**QC Batch**	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon										
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	3410083	13	31	3400091	13	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	23	3410083	120	52	3400091	39	74	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	3410083	18	<10	3400091	<10	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	3410083	YES	YES	3400091	YES	YES	N/A	3410083
Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	93	3410083	99	96	3400091	92	94		3410083

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

GLYCOLS BY GC-FID (SOIL)

Maxxam ID		Q56950		
Sampling Date		2009/08/29		
	Units	**1-09-2M-1**	**RDL**	**QC Batch**
Glycols				
Extractable (Water) Ethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Diethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Triethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Tetraethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Propylene Glycol	mg/kg	<10	10	3404986
Surrogate Recovery (%)				
Extractable (Water) SULFOLANE (sur.)	%	86		3404986

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56935	Q56937	Q56939	Q56943		Q56947	Q56947		Q56948		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/29		
	Units	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-5M-2**	**QC Batch**	**3-09-6M-3**	**3-09-6M-3 Lab-Dup**	**QC Batch**	**3-09-DUP-2**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	28	110	3393756	120		3393756	88	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	0.015	<0.005	0.86	<0.005	3398448	0.005	<0.005	3398449	<0.005	0.005	3398448
Ethylbenzene	mg/kg	<0.01	<0.01	0.05	<0.01	3398448	0.08	0.08	3398449	0.10	0.01	3398448
m & p-Xylene	mg/kg	<0.1	<0.1	0.3	<0.1	3398448	2.1	2.0	3398449	1.6	0.1	3398448
o-Xylene	mg/kg	<0.1	<0.1	0.1	<0.1	3398448	0.9	0.8	3398449	0.6	0.1	3398448
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Toluene	mg/kg	0.07	<0.05	0.16	<0.05	3398448	<0.05	<0.05	3398449	<0.05	0.05	3398448
Xylenes (Total)	mg/kg	<0.1	<0.1	0.5	<0.1	3398448	2.9	2.8	3398449	2.3	0.1	3398448
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	29	110	3398448	120	110	3398449	90	10	3398448
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	101	100	99	106	3398448	109	108	3398449	115		3398448
D10-ETHYLBENZENE (sur.)	%	102	98	102	101	3398448	107	106	3398449	102		3398448
D4-1,2-DICHLOROETHANE (sur.)	%	93	93	93	94	3398448	98	97	3398449	94		3398448
D8-TOLUENE (sur.)	%	103	102	102	98	3398448	100	100	3398449	98		3398448

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56949	Q56951	Q56978	Q56981	Q56982		Q56983	Q56983	Q56985		
Sampling Date		2009/08/29	2009/08/29	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-1M-1**	**1-09-3M-1**	**1-09-4M-1**	**1-09-DUP-1**	**4A-09-1M-1**	**QC Batch**	**4A-09-2M-1**	**4A-09-2M-1 Lab-Dup**	**4A-09-DUP-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	3393756	<10		<10	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	3398448	<0.005	<0.005	0.009	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	3398448	<0.01	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	3398448	<0.05	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	<10	<10	<10	3398448	<10	<10	<10	10	3399617
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	106	101	101	100	99	3398448	101	100	101		3399617
D10-ETHYLBENZENE (sur.)	%	101	100	96	102	94	3398448	100	100	100		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	92	94	100	97	101	3398448	102	103	104		3399617
D8-TOLUENE (sur.)	%	102	102	101	101	102	3398448	97	98	98		3399617

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56988	Q56989	Q57022	Q57023	Q57110	Q57111		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-6-1**	**4A-09-6-2**	**4A-09-7-1**	**4A-09-8-1**	**2-09-TP8-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	32	180	<10	<10	10	3393756
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	0.046	<0.005	<0.005	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	0.02	0.07	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	2.0	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	2.5	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons									
(C6-C10)	mg/kg	<10	<10	32	180	<10	<10	10	3399617
Volatiles									
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	100	101	102	111	100	103		3399617
D10-ETHYLBENZENE (sur.)	%	103	100	102	100	99	98		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	102	104	103	105	103	105		3399617
D8-TOLUENE (sur.)	%	98	98	98	99	97	97		3399617

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56950		Q56951	Q56978	Q56979	Q56980	Q56980	Q56984	Q56986		
Sampling Date		2009/08/29		2009/08/29	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-2M-1**	**QC Batch**	**1-09-3M-1**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**1-09-6M-1 Lab-Dup**	**4A-09-3M-1**	**4A-09-4-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.39	3407604	8.10	8.28	7.87	8.17	8.17	7.98	8.03	0.01	3407604
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	7100	3401543	7540	8490	3540	8170	9210	4310	4280	100	3401600
Total Antimony (Sb)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.1	3401600
Total Arsenic (As)	mg/kg	1.3	3401543	1.2	1.7	1.0	1.9	1.9	2.7	1.9	0.2	3401600
Total Barium (Ba)	mg/kg	37.3	3401543	35.2	40.3	21.7	38.6	42.0	27.2	28.3	0.1	3401600
Total Beryllium (Be)	mg/kg	0.5	3401543	0.5	0.5	0.2	0.4	0.5	0.3	0.2	0.1	3401600
Total Bismuth (Bi)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3401600
Total Cadmium (Cd)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.08	0.05	3401600
Total Calcium (Ca)	mg/kg	42600	3401543	31700	35600	44800	49100	51200	75700	75900	100	3401600
Total Chromium (Cr)	mg/kg	18	3401543	14	21	7	18	20	11	10	1	3401600
Total Cobalt (Co)	mg/kg	5.4	3401543	5.6	5.2	3.1	5.7	6.2	3.9	3.4	0.3	3401600
Total Copper (Cu)	mg/kg	12.2	3401543	23.8	12.0	16.5	12.3	13.7	9.0	8.2	0.5	3401600
Total Iron (Fe)	mg/kg	12500	3401543	10700	13700	7990	12500	13900	10600	9540	100	3401600
Total Lead (Pb)	mg/kg	5.1	3401543	4.9	4.9	3.5	5.1	5.6	13.5	14.4	0.1	3401600
Total Magnesium (Mg)	mg/kg	26300	3401543	19500	23200	24300	29000	31200	40300	43100	100	3401600
Total Manganese (Mn)	mg/kg	231	3401543	192	229	187	247	262	328	275	0.2	3401600
Total Mercury (Hg)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3401600
Total Molybdenum (Mo)	mg/kg	0.5	3401543	0.2	0.4	0.3	0.3	0.3	0.6	0.5	0.1	3401600
Total Nickel (Ni)	mg/kg	12.4	3401543	11.8	12.2	6.2	13.1	14.5	10.0	9.0	0.8	3401600
Total Phosphorus (P)	mg/kg	484	3401543	458	505	383	512	526	625	451	10	3401600
Total Potassium (K)	mg/kg	3180	3401543	3990	3320	1520	3470	3720	1900	1890	100	3401600
Total Selenium (Se)	mg/kg	<0.5	3401543	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3401600
Total Silver (Ag)	mg/kg	0.06	3401543	0.06	0.06	<0.05	0.06	0.06	<0.05	<0.05	0.05	3401600
Total Sodium (Na)	mg/kg	310	3401543	266	337	143	310	336	184	180	100	3401600
Total Strontium (Sr)	mg/kg	27.7	3401543	23.5	25.1	20.2	26.5	28.7	43.5	38.7	0.1	3401600
Total Thallium (Tl)	mg/kg	0.12	3401543	0.15	0.12	0.08	0.14	0.15	0.10	0.09	0.05	3401600
Total Tin (Sn)	mg/kg	0.3	3401543	0.3	0.4	0.1	0.3	0.4	0.2	0.2	0.1	3401600
Total Titanium (Ti)	mg/kg	415	3401543	219	562	157	433	483	184	192	1	3401600
Total Vanadium (V)	mg/kg	28	3401543	20	33	15	28	31	22	19	2	3401600
Total Zinc (Zn)	mg/kg	21	3401543	13	23	7	19	22	13	11	1	3401600
Total Zirconium (Zr)	mg/kg	5.7	3401543	5.9	5.8	2.1	5.6	6.3	2.9	2.8	0.5	3401600

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56987		Q57029	Q57029		Q57032	Q57033		Q57034		
Sampling Date		2009/08/30		2009/08/30	2009/08/30		2009/08/30	2009/08/30		2009/08/30		
	Units	**4A-09-5-1**	**QC Batch**	**5-09TP4-3**	**5-09TP4-3 Lab-Dup**	**QC Batch**	**6-09TP1-3**	**BG-1**	**QC Batch**	**BG-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.55	3407604	8.49	8.42	3410846	7.96	8.17	3412134	8.29	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3940	3401600	4420		3402570	4830	2470	3402612	2800	100	3402570
Total Antimony (Sb)	mg/kg	0.2	3401600	<0.1		3402570	0.1	<0.1	3402612	<0.1	0.1	3402570
Total Arsenic (As)	mg/kg	1.5	3401600	0.7		3402570	0.7	0.5	3402612	1.4	0.2	3402570
Total Barium (Ba)	mg/kg	25.3	3401600	33.3		3402570	32.3	21.6	3402612	18.6	0.1	3402570
Total Beryllium (Be)	mg/kg	0.4	3401600	0.3		3402570	0.3	0.2	3402612	0.3	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3401600	<0.1		3402570	<0.1	<0.1	3402612	<0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	0.39	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	92900	3401600	57400		3402570	53100	64600	3402612	51800	100	3402570
Total Chromium (Cr)	mg/kg	9	3401600	9		3402570	12	7	3402612	7	1	3402570
Total Cobalt (Co)	mg/kg	3.7	3401600	4.7		3402570	4.7	2.6	3402612	3.6	0.3	3402570
Total Copper (Cu)	mg/kg	10.8	3401600	9.3		3402570	10.4	8.7	3402612	8.4	0.5	3402570
Total Iron (Fe)	mg/kg	10100	3401600	9010		3402570	10400	9690	3402612	7750	100	3402570
Total Lead (Pb)	mg/kg	294	3401600	7.5		3402570	5.9	4.3	3402612	3.9	0.1	3402570
Total Magnesium (Mg)	mg/kg	53500	3401600	30400		3402570	31000	37000	3402612	28500	100	3402570
Total Manganese (Mn)	mg/kg	350	3401600	247		3402570	257	295	3402612	230	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.7	3401600	0.3		3402570	0.3	0.2	3402612	0.1	0.1	3402570
Total Nickel (Ni)	mg/kg	9.5	3401600	10.7		3402570	10.8	6.8	3402612	8.0	0.8	3402570
Total Phosphorus (P)	mg/kg	373	3401600	460		3402570	560	541	3402612	681	10	3402570
Total Potassium (K)	mg/kg	2250	3401600	2250		3402570	2220	1110	3402612	1520	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3401600	<0.5		3402570	<0.5	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3401600	0.06		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Sodium (Na)	mg/kg	195	3401600	229		3402570	149	<100	3402612	119	100	3402570
Total Strontium (Sr)	mg/kg	35.6	3401600	21.6		3402570	27.3	23.6	3402612	21.0	0.1	3402570
Total Thallium (Tl)	mg/kg	0.08	3401600	0.11		3402570	0.12	0.08	3402612	0.08	0.05	3402570
Total Tin (Sn)	mg/kg	0.3	3401600	0.2		3402570	0.2	0.1	3402612	0.2	0.1	3402570
Total Titanium (Ti)	mg/kg	122	3401600	188		3402570	260	121	3402612	126	1	3402570
Total Vanadium (V)	mg/kg	17	3401600	14		3402570	20	13	3402612	12	2	3402570
Total Zinc (Zn)	mg/kg	13	3401600	13		3402570	16	7	3402612	10	1	3402570
Total Zirconium (Zr)	mg/kg	3.1	3401600	3.9		3402570	2.9	2.5	3402612	3.7	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57035	Q57059		Q57062		Q57065	Q57101		Q57103		
Sampling Date		2009/08/30	2009/08/30		2009/08/30		2009/08/30	2009/08/29		2009/08/29		
	Units	**BG-3**	**5-09-TP1-1**	**QC Batch**	**5-09-TP2-1**	**QC Batch**	**5-09-TP3-1**	**2-09-TP1-2**	**QC Batch**	**2-09-TP2-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.34	8.28	3412134	8.29	3410846	8.60	7.30	3412134	7.75	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3310	6630	3402612	2640	3402570	3300	3560	3402612	8920	100	3404758
Total Antimony (Sb)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	0.3	0.2	3402612	0.2	0.1	3404758
Total Arsenic (As)	mg/kg	0.9	2.1	3402612	2.4	3402570	1.6	1.8	3402612	8.5	0.2	3404758
Total Barium (Ba)	mg/kg	19.4	35.5	3402612	28.2	3402570	35.6	41.4	3402612	60.3	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.3	3402612	0.4	3402570	0.3	0.3	3402612	0.6	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	<0.1	<0.1	3402612	<0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	0.14	3402612	<0.05	3402570	0.05	0.07	3402612	0.11	0.05	3404758
Total Calcium (Ca)	mg/kg	53000	53900	3402612	95400	3402570	91400	67900	3402612	54200	100	3404758
Total Chromium (Cr)	mg/kg	8	15	3402612	12	3402570	9	11	3402612	27	1	3404758
Total Cobalt (Co)	mg/kg	3.7	6.7	3402612	7.1	3402570	3.6	3.3	3402612	5.1	0.3	3404758
Total Copper (Cu)	mg/kg	8.0	11.8	3402612	13.7	3402570	8.0	28.7	3402612	12.5	0.5	3404758
Total Iron (Fe)	mg/kg	7400	13100	3402612	15200	3402570	9350	9650	3402612	16300	100	3404758
Total Lead (Pb)	mg/kg	3.5	6.5	3402612	10.6	3402570	16.9	4.9	3402612	6.2	0.1	3404758
Total Magnesium (Mg)	mg/kg	30900	32300	3402612	54000	3402570	51600	35400	3402612	33400	100	3404758
Total Manganese (Mn)	mg/kg	212	340	3402612	535	3402570	322	265	3402612	224	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402612	<0.05	3402570	<0.05	<0.05	3402612	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	0.2	0.5	3402612	0.7	3402570	0.6	0.8	3402612	3.4	0.1	3404758
Total Nickel (Ni)	mg/kg	8.7	14.8	3402612	18.2	3402570	8.7	14.4	3402612	15.5	0.8	3404758
Total Phosphorus (P)	mg/kg	464	583	3402612	1240	3402570	514	717	3402612	713	10	3404758
Total Potassium (K)	mg/kg	1690	2530	3402612	1750	3402570	1790	1500	3402612	3590	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402612	<0.5	3402570	<0.5	0.9	3402612	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	<0.05	0.06	3402612	0.07	3402570	<0.05	0.05	3402612	0.08	0.05	3404758
Total Sodium (Na)	mg/kg	135	179	3402612	180	3402570	163	329	3402612	585	100	3404758
Total Strontium (Sr)	mg/kg	20.2	26.9	3402612	47.4	3402570	34.5	27.2	3402612	35.6	0.1	3404758
Total Thallium (Tl)	mg/kg	0.09	0.13	3402612	0.08	3402570	0.09	0.13	3402612	0.14	0.05	3404758
Total Tin (Sn)	mg/kg	0.2	0.3	3402612	0.2	3402570	0.2	0.2	3402612	0.4	0.1	3404758
Total Titanium (Ti)	mg/kg	142	299	3402612	69	3402570	134	156	3402612	604	1	3404758
Total Vanadium (V)	mg/kg	13	22	3402612	21	3402570	14	18	3402612	43	2	3404758
Total Zinc (Zn)	mg/kg	9	34	3402612	8	3402570	12	15	3402612	32	1	3404758
Total Zirconium (Zr)	mg/kg	3.3	4.8	3402612	5.2	3402570	2.4	4.4	3402612	6.3	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57104		Q57106		Q57107		Q57108		Q57109		
Sampling Date		2009/08/29		2009/08/29		2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP3-1**	**QC Batch**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**QC Batch**	**2-09-TP6-1**	**QC Batch**	**2-09-TP7-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	7.90	3410846	8.49	3412134	8.02	3412134	8.09	3412134	8.12	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	4800	3402570	2950	3402612	4050	3402570	3860	3402612	3850	100	3402570
Total Antimony (Sb)	mg/kg	<0.1	3402570	<0.1	3402612	0.1	3402570	0.6	3402612	0.2	0.1	3402570
Total Arsenic (As)	mg/kg	1.8	3402570	1.6	3402612	3.3	3402570	40.6	3402612	6.5	0.2	3402570
Total Barium (Ba)	mg/kg	27.1	3402570	24.0	3402612	20.2	3402570	32.3	3402612	19.9	0.1	3402570
Total Beryllium (Be)	mg/kg	0.3	3402570	0.3	3402612	0.5	3402570	0.7	3402612	0.6	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3402570	<0.1	3402612	0.2	3402570	0.1	3402612	0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	<0.05	3402570	<0.05	3402612	1.45	3402570	0.06	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	54700	3402570	85900	3402612	81100	3402570	40800	3402612	31600	100	3402570
Total Chromium (Cr)	mg/kg	12	3402570	8	3402612	20	3402570	16	3402612	15	1	3402570
Total Cobalt (Co)	mg/kg	4.3	3402570	3.6	3402612	6.1	3402570	10.1	3402612	13.7	0.3	3402570
Total Copper (Cu)	mg/kg	12.0	3402570	8.5	3402612	94.5	3402570	24.5	3402612	20.0	0.5	3402570
Total Iron (Fe)	mg/kg	11100	3402570	8520	3402612	16200	3402570	51000	3402612	18200	100	3402570
Total Lead (Pb)	mg/kg	3.6	3402570	3.6	3402612	21.4	3402570	24.5	3402612	21.2	0.1	3402570
Total Magnesium (Mg)	mg/kg	32500	3402570	53300	3402612	48000	3402570	22600	3402612	17000	100	3402570
Total Manganese (Mn)	mg/kg	292	3402570	259	3402612	561	3402570	433	3402612	333	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3402570	<0.05	3402612	<0.05	3402570	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.4	3402570	0.3	3402612	1.3	3402570	7.4	3402612	4.9	0.1	3402570
Total Nickel (Ni)	mg/kg	10.4	3402570	8.5	3402612	32.1	3402570	25.5	3402612	20.9	0.8	3402570
Total Phosphorus (P)	mg/kg	539	3402570	636	3402612	1010	3402570	1820	3402612	798	10	3402570
Total Potassium (K)	mg/kg	1400	3402570	1890	3402612	1680	3402570	2570	3402612	2590	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3402570	<0.5	3402612	<0.5	3402570	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3402570	<0.05	3402612	0.09	3402570	<0.05	3402612	0.09	0.05	3402570
Total Sodium (Na)	mg/kg	215	3402570	333	3402612	231	3402570	1220	3402612	712	100	3402570
Total Strontium (Sr)	mg/kg	25.1	3402570	29.8	3402612	75.7	3402570	58.0	3402612	35.1	0.1	3402570
Total Thallium (Tl)	mg/kg	0.07	3402570	0.08	3402612	0.09	3402570	0.09	3402612	0.09	0.05	3402570
Total Tin (Sn)	mg/kg	0.2	3402570	0.1	3402612	0.4	3402570	0.4	3402612	0.5	0.1	3402570
Total Titanium (Ti)	mg/kg	285	3402570	135	3402612	110	3402570	75	3402612	84	1	3402570
Total Vanadium (V)	mg/kg	25	3402570	12	3402612	22	3402570	69	3402612	22	2	3402570
Total Zinc (Zn)	mg/kg	16	3402570	10	3402612	110	3402570	24	3402612	16	1	3402570
Total Zirconium (Zr)	mg/kg	2.5	3402570	2.0	3402612	4.5	3402570	4.3	3402612	6.1	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57110	Q57111		Q57114		Q57115		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**QC Batch**	**GR2**	**RDL**	**QC Batch**
Misc. Inorganics									
Soluble (2:1) pH	pH Units	8.14	8.32	3410846	8.10	3412134	7.90	0.01	3412134
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	2860	3180	3402570	3900	3402570	4980	100	3404758
Total Antimony (Sb)	mg/kg	0.2	0.1	3402570	0.2	3402570	0.1	0.1	3404758
Total Arsenic (As)	mg/kg	5.2	8.7	3402570	9.1	3402570	2.0	0.2	3404758
Total Barium (Ba)	mg/kg	41.5	17.1	3402570	25.7	3402570	24.5	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.7	3402570	0.7	3402570	0.3	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	0.1	3402570	0.1	3402570	0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	1.71	0.05	3404758
Total Calcium (Ca)	mg/kg	53800	111000	3402570	72900	3402570	72800	100	3404758
Total Chromium (Cr)	mg/kg	13	13	3402570	17	3402570	22	1	3404758
Total Cobalt (Co)	mg/kg	12.1	6.0	3402570	16.0	3402570	5.0	0.3	3404758
Total Copper (Cu)	mg/kg	18.2	11.3	3402570	22.4	3402570	102	0.5	3404758
Total Iron (Fe)	mg/kg	22200	22200	3402570	24300	3402570	11900	100	3404758
Total Lead (Pb)	mg/kg	22.9	15.2	3402570	25.6	3402570	20.8	0.1	3404758
Total Magnesium (Mg)	mg/kg	29600	63200	3402570	40800	3402570	40800	100	3404758
Total Manganese (Mn)	mg/kg	490	807	3402570	639	3402570	495	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	3.7	2.7	3402570	4.7	3402570	0.9	0.1	3404758
Total Nickel (Ni)	mg/kg	23.4	13.0	3402570	24.0	3402570	29.7	0.8	3404758
Total Phosphorus (P)	mg/kg	659	1600	3402570	1030	3402570	901	10	3404758
Total Potassium (K)	mg/kg	2080	2000	3402570	2480	3402570	1660	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402570	<0.5	3402570	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	0.11	0.05	3402570	0.07	3402570	0.07	0.05	3404758
Total Sodium (Na)	mg/kg	476	1300	3402570	1730	3402570	216	100	3404758
Total Strontium (Sr)	mg/kg	31.1	57.2	3402570	54.6	3402570	79.4	0.1	3404758
Total Thallium (Tl)	mg/kg	0.21	0.05	3402570	0.10	3402570	0.10	0.05	3404758
Total Tin (Sn)	mg/kg	0.4	0.3	3402570	0.5	3402570	0.5	0.1	3404758
Total Titanium (Ti)	mg/kg	61	80	3402570	110	3402570	147	1	3404758
Total Vanadium (V)	mg/kg	23	30	3402570	34	3402570	20	2	3404758
Total Zinc (Zn)	mg/kg	12	10	3402570	18	3402570	97	1	3404758
Total Zirconium (Zr)	mg/kg	5.7	6.2	3402570	4.9	3402570	3.1	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56933		Q56940	Q56941		Q56950	Q56950	Q56980		
Sampling Date		2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/30		
	Units	**3-09-1-1**	**QC Batch**	**3-09-4M-3**	**3-09-DUP-1**	**QC Batch**	**1-09-2M-1**	**1-09-2M-1 Lab-Dup**	**1-09-6M-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	<0.01	3393461	0.40	<0.01	3393461	<0.01		<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02	3393461	<0.02	<0.02	3393461	<0.02		<0.02	0.02	3393461
Total PAH	mg/kg	<0.02	3393461	0.40	<0.02	3393461	<0.02		<0.02	0.02	3393461
Naphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
2-Methylnaphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthylene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluorene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Phenanthrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Chrysene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(b&j)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(k)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Dibenz(a,h)anthracene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Benzo(g,h,i)perylene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	88	3396608	95	95	3397567	91	88	90		3396608
D12-BENZO(A)PYRENE (sur.)	%	84	3396608	91	89	3397567	86	85	85		3396608
D8-ACENAPHTHYLENE (sur.)	%	84	3396608	90	91	3397567	86	84	86		3396608
TERPHENYL-D14 (sur.)	%	87	3396608	96	94	3397567	91	88	88		3396608

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56984			Q56986		Q56987			Q57029	Q57032		
Sampling Date		2009/08/30			2009/08/30		2009/08/30			2009/08/30	2009/08/30		
	Units	**4A-09-3M-1**	**RDL**	**QC Batch**	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**RDL**	**QC Batch**
Polycyclic Aromatics													
Low Molecular Weight PAH`s	mg/kg	5.6	0.1	3393461	16	0.1	58	0.4	3393461	<0.01	<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	0.03	0.02	3393461	<0.2	0.2	<0.2	0.2	3393461	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	5.6	0.1	3393461	16	0.2	58	0.4	3393461	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	1.3	0.01	3400175	4.3(1)	0.1	13(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
2-Methylnaphthalene	mg/kg	4.0	0.01	3400175	11(1)	0.1	39(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Acenaphthylene	mg/kg	<0.1(2)	0.1	3400175	<0.1(2)	0.1	<0.4(2)	0.4	3397567	<0.01	<0.01	0.01	3401373
Acenaphthene	mg/kg	<0.03(2)	0.03	3400175	0.2(1)	0.1	0.8(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Fluorene	mg/kg	0.14	0.01	3400175	0.5(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Phenanthrene	mg/kg	0.13	0.01	3400175	0.3(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.3(2)	0.3	3397567	<0.01	<0.01	0.01	3401373
Fluoranthene	mg/kg	0.02	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Pyrene	mg/kg	0.01	0.01	3400175	<0.1(1)	0.1	0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Chrysene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(b&j)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(k)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)pyrene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Dibenz(a,h)anthracene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Benzo(g,h,i)perylene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Surrogate Recovery (%)													
D10-ANTHRACENE (sur.)	%	104		3400175	120		120		3397567	107	101		3401373
D12-BENZO(A)PYRENE (sur.)	%	101		3400175	110		110		3397567	99	94		3401373
D8-ACENAPHTHYLENE (sur.)	%	99		3400175	100		90		3397567	96	91		3401373
TERPHENYL-D14 (sur.)	%	96		3400175	110		100		3397567	94	91		3401373

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.
(2) - RDL raised due to sample matrix interference.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q57059	Q57059		Q57062	Q57065	Q57103	Q57104	Q57111		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP1-1 Lab-Dup**	**QC Batch**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP2-2**	**2-09-TP3-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	0.01		3393461	<0.01	0.61	<0.01	<0.01	0.02	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02		3393461	<0.02	2.1	<0.02	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	<0.02		3393461	<0.02	2.7	<0.02	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	0.01	<0.01	3399651	<0.01	0.03	<0.01	<0.01	<0.01	0.01	3400184
2-Methylnaphthalene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	0.02	0.01	3400184
Acenaphthylene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3400184
Acenaphthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Fluorene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Phenanthrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.60	<0.01	<0.01	<0.01	0.01	3400184
Pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.18	<0.01	<0.01	<0.01	0.01	3400184
Chrysene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Benzo(b&j)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.27	<0.01	<0.01	<0.01	0.01	3400184
Benzo(k)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Dibenz(a,h)anthracene	mg/kg	<0.02	<0.02	3399651	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	3400184
Benzo(g,h,i)perylene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	95	95	3399651	108	107	112	115	114		3400184
D12-BENZO(A)PYRENE (sur.)	%	92	92	3399651	103	102	107	109	108		3400184
D8-ACENAPHTHYLENE (sur.)	%	90	90	3399651	98	98	99	102	102		3400184
TERPHENYL-D14 (sur.)	%	92	94	3399651	95	95	100	101	101		3400184

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10		44	<10	<10	<10	<10	10	4700	300	3393756
Chlorobenzenes												
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	1.2	0.006	<0.005	<0.005	<0.005	0.005	1.0	0.005	3399824
Ethylbenzene	mg/kg	<0.01	<0.01	0.08	<0.01	<0.01	<0.01	<0.01	0.01	5.6	0.01	3399824
m & p-Xylene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	0.1	22	0.1	3399824
o-Xylene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	7.0	0.1	3399824
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Toluene	mg/kg	<0.03	<0.03	0.28	<0.03	<0.03	<0.03	<0.03	0.03	15	0.03	3399824
Xylenes (Total)	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	<0.1	0.1	29	0.1	3399824

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Volatiles												
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<2(1)	2	3399824
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.3	3399824
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
cis-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	3399824
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	0.2	3399824
Vinyl chloride	mg/kg	<0.08(2)	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	<0.08	0.08	3399824
Volatile Hydrocarbons												
F1 (C06-C10)	mg/kg	<10	<10	47	<10	<10	<10	<10	10	4800(3)	300	3399909

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	84	85	92	86	84	85	85		72		3399824
D10-ETHYLBENZENE (sur.)	%	107	109	112	106	109	106	108		89		3399824
D4-1,2-DICHLOROETHANE (sur.)	%	82	83	80	82	82	81	82		80		3399824
D8-TOLUENE (sur.)	%	99	100	103	100	99	100	99		101		3399824

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters											
F1 (C06-C10) - BTEX	mg/kg	4400	300	4300	300	3393756	<10	<10		10	3393756
Chlorobenzenes											
1,2-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics											
Benzene	mg/kg	2.9	0.005	4.6	0.005	3399824	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	6.8	0.01	6.5	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	100(1)	0.5	65(1)	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	34(1)	0.5	11	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	37(1)	0.1	1.5	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	140	0.5	76	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Volatiles											
1,1,1,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<9(1)	9	<6(1)	6	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	0.3	<0.3	0.3	3399824	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05(2)	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	0.01	<0.01	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	0.2	<0.2	0.2	3399824	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	0.08	<0.08	0.08	3399824	<0.08	<0.08(2)	<0.08	0.08	3399837
Volatile Hydrocarbons											
F1 (C06-C10)	mg/kg	4600(3)	300	4400(3)	300	3399909	<10	<10	<10	10	3399912

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Surrogate Recovery (%)											
4-BROMOFLUOROBENZENE (sur.)	%	74		80		3399824	86	87	86		3399837
D10-ETHYLBENZENE (sur.)	%	89		89		3399824	109	107	104		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	81		84		3399824	80	81	81		3399837
D8-TOLUENE (sur.)	%	106		103		3399824	101	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	96	86	86	87	86	85		3399837
D10-ETHYLBENZENE (sur.)	%	99	106	107	94	109	106		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	102	81	79	81	79	79		3399837
D8-TOLUENE (sur.)	%	99	100	100	100	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	85	86	84	85	85	90		3399837
D10-ETHYLBENZENE (sur.)	%	104	105	106	101	103	91		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	80	81	80	79	79	83		3399837
D8-TOLUENE (sur.)	%	100	100	99	99	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Package 1	2.0°C
Package 2	5.0°C
Package 3	9.0°C
Package 4	9.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3395524	Moisture	2009/09/05					<0.3	%	2.6	20		
3395624	Moisture	2009/09/05					<0.3	%	0	20		
3395627	Moisture	2009/09/05					<0.3	%	9.2	20		
3396608	D10-ANTHRACENE (sur.)	2009/09/05			86	30 - 130	101	%				
3396608	D12-BENZO(A)PYRENE (sur.)	2009/09/05			84	30 - 130	94	%				
3396608	D8-ACENAPHTHYLENE (sur.)	2009/09/05			82	30 - 130	96	%				
3396608	TERPHENYL-D14 (sur.)	2009/09/05			86	30 - 130	100	%				
3396608	Naphthalene	2009/09/05	87	40 - 130	100	40 - 130	<0.01	mg/kg	NC	50		
3396608	2-Methylnaphthalene	2009/09/05	88	40 - 130	101	40 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthylene	2009/09/05	80	40 - 130	90	40 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthene	2009/09/05	86	40 - 130	98	40 - 130	<0.01	mg/kg	NC	50		
3396608	Fluorene	2009/09/05	81	40 - 130	96	40 - 130	<0.01	mg/kg	NC	50		
3396608	Phenanthrene	2009/09/05	88	40 - 130	101	40 - 130	<0.01	mg/kg	NC	50		
3396608	Anthracene	2009/09/05	83	40 - 130	96	40 - 130	<0.01	mg/kg	NC	50		
3396608	Fluoranthene	2009/09/05	83	40 - 130	100	40 - 130	<0.01	mg/kg	NC	50		
3396608	Pyrene	2009/09/05	85	40 - 130	97	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)anthracene	2009/09/05	81	40 - 130	91	40 - 130	<0.01	mg/kg	NC	50		
3396608	Chrysene	2009/09/05	81	40 - 130	92	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(b&j)fluoranthene	2009/09/05	85	40 - 130	101	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(k)fluoranthene	2009/09/05	82	40 - 130	95	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)pyrene	2009/09/05	86	40 - 130	97	40 - 130	<0.01	mg/kg	NC	50		
3396608	Indeno(1,2,3-cd)pyrene	2009/09/05	75	40 - 130	78	40 - 130	<0.02	mg/kg	NC	50		
3396608	Dibenz(a,h)anthracene	2009/09/05	72	40 - 130	76	40 - 130	<0.02	mg/kg	NC	50		
3396608	Benzo(g,h,i)perylene	2009/09/05	75	40 - 130	82	40 - 130	<0.02	mg/kg	NC	50		
3397567	D10-ANTHRACENE (sur.)	2009/09/05			91	30 - 130	101	%				
3397567	D12-BENZO(A)PYRENE (sur.)	2009/09/05			87	30 - 130	93	%				
3397567	D8-ACENAPHTHYLENE (sur.)	2009/09/05			89	30 - 130	96	%				
3397567	TERPHENYL-D14 (sur.)	2009/09/05			90	30 - 130	97	%				
3397567	Naphthalene	2009/09/05			106	40 - 130	<0.01	mg/kg	3.9	50		
3397567	2-Methylnaphthalene	2009/09/05			108	40 - 130	<0.01	mg/kg	2.8	50		
3397567	Acenaphthylene	2009/09/05			101	40 - 130	<0.01	mg/kg	3.0	50		
3397567	Acenaphthene	2009/09/05			102	40 - 130	<0.01	mg/kg	9.6	50		
3397567	Fluorene	2009/09/05			106	40 - 130	<0.01	mg/kg	9.0	50		
3397567	Phenanthrene	2009/09/05			110	40 - 130	<0.01	mg/kg	5.6	50		
3397567	Anthracene	2009/09/05			110	40 - 130	<0.01	mg/kg	7.4	50		
3397567	Fluoranthene	2009/09/05			109	40 - 130	<0.01	mg/kg	0.2	50		
3397567	Pyrene	2009/09/05			105	40 - 130	<0.01	mg/kg	1.4	50		
3397567	Benzo(a)anthracene	2009/09/05			102	40 - 130	<0.01	mg/kg	8.3	50		
3397567	Chrysene	2009/09/05			104	40 - 130	<0.01	mg/kg	5.4	50		
3397567	Benzo(b&j)fluoranthene	2009/09/05			103	40 - 130	<0.01	mg/kg	4.3	50		

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3397567	Benzo(k)fluoranthene	2009/09/05			108	40 - 130	<0.01	mg/kg	3.5	50		
3397567	Benzo(a)pyrene	2009/09/05			107	40 - 130	<0.01	mg/kg	1.8	50		
3397567	Indeno(1,2,3-cd)pyrene	2009/09/05			101	40 - 130	<0.02	mg/kg	6.1	50		
3397567	Dibenz(a,h)anthracene	2009/09/05			102	40 - 130	<0.02	mg/kg	5.1	50		
3397567	Benzo(g,h,i)perylene	2009/09/05			103	40 - 130	<0.02	mg/kg	5.6	50		
3398109	O-TERPHENYL (sur.)	2009/09/08			75	50 - 130	82	%				
3398109	F2 (C10-C16 Hydrocarbons)	2009/09/08			104	80 - 120	<10	mg/kg	NC	40		
3398109	F3 (C16-C34 Hydrocarbons)	2009/09/08			110	80 - 120	<10	mg/kg	3.3	40		
3398109	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.9	40		
3398109	Reached Baseline at C50	2009/09/08					YES, RDL=N/A	mg/kg	NC	50		
3398448	Benzene	2009/09/05			95	80 - 120	<0.005	mg/kg	NC	40		
3398448	Ethylbenzene	2009/09/05			108	80 - 120	<0.01	mg/kg	NC	40		
3398448	m & p-Xylene	2009/09/05			108	80 - 120	<0.1	mg/kg	NC	40		
3398448	o-Xylene	2009/09/05			110	80 - 120	<0.1	mg/kg	NC	40		
3398448	Toluene	2009/09/05			98	80 - 120	<0.05	mg/kg	NC	40		
3398448	4-BROMOFLUOROBENZENE (sur.)	2009/09/04			100	70 - 130	98	%			99	70 - 130
3398448	D10-ETHYLBENZENE (sur.)	2009/09/04			91	50 - 130	95	%			91	50 - 130
3398448	D4-1,2-DICHLOROETHANE (sur.)	2009/09/04			94	70 - 130	101	%			96	70 - 130
3398448	D8-TOLUENE (sur.)	2009/09/04			102	70 - 130	102	%			104	70 - 130
3398448	(C6-C10)	2009/09/05					<10	mg/kg	NC	40	83	80 - 120
3398448	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Xylenes (Total)	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Benzene	2009/09/05	97	60 - 140	97	80 - 120	<0.005	mg/kg	NC	40		
3398449	Ethylbenzene	2009/09/05	102	60 - 140	108	80 - 120	<0.01	mg/kg	3.5	40		
3398449	m & p-Xylene	2009/09/05	94	60 - 140	106	80 - 120	<0.1	mg/kg	5.2	40		
3398449	o-Xylene	2009/09/05	98	60 - 140	107	80 - 120	<0.1	mg/kg	9.7	40		
3398449	Toluene	2009/09/05	95	60 - 140	96	80 - 120	<0.05	mg/kg	NC	40		
3398449	4-BROMOFLUOROBENZENE (sur.)	2009/09/05			102	70 - 130	98	%			102	70 - 130
3398449	D10-ETHYLBENZENE (sur.)	2009/09/05			96	50 - 130	107	%			96	50 - 130
3398449	D4-1,2-DICHLOROETHANE (sur.)	2009/09/05			99	70 - 130	97	%			99	70 - 130
3398449	D8-TOLUENE (sur.)	2009/09/05			102	70 - 130	102	%			102	70 - 130
3398449	(C6-C10)	2009/09/05					<10	mg/kg	9.7	40	103	80 - 120
3398449	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Xylenes (Total)	2009/09/05					<0.1	mg/kg	6.6	40		
3398449	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398902	<200 mesh (>.075 mm)	2009/09/08							0.7	30		
3398902	>200 mesh (<.075 mm)	2009/09/08							1.2	30		
3399617	Benzene	2009/09/06	95	60 - 140	87	80 - 120	<0.005	mg/kg	NC	40		
3399617	Ethylbenzene	2009/09/06	100	60 - 140	95	80 - 120	<0.01	mg/kg	NC	40		

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399617	m & p-Xylene	2009/09/06	99	60 - 140	95	80 - 120	<0.1	mg/kg	NC	40		
3399617	o-Xylene	2009/09/06	103	60 - 140	98	80 - 120	<0.1	mg/kg	NC	40		
3399617	Toluene	2009/09/06	93	60 - 140	87	80 - 120	<0.05	mg/kg	NC	40		
3399617	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			103	70 - 130	99	%			102	70 - 130
3399617	D10-ETHYLBENZENE (sur.)	2009/09/06			92	50 - 130	99	%			91	50 - 130
3399617	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			102	70 - 130	98	%			104	70 - 130
3399617	D8-TOLUENE (sur.)	2009/09/06			99	70 - 130	100	%			99	70 - 130
3399617	(C6-C10)	2009/09/06					<10	mg/kg	NC	40	83	80 - 120
3399617	Styrene	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	40		
3399651	D10-ANTHRACENE (sur.)	2009/09/06			96	30 - 130	99	%				
3399651	D12-BENZO(A)PYRENE (sur.)	2009/09/06			93	30 - 130	93	%				
3399651	D8-ACENAPHTHYLENE (sur.)	2009/09/06			91	30 - 130	94	%				
3399651	TERPHENYL-D14 (sur.)	2009/09/06			91	30 - 130	96	%				
3399651	Naphthalene	2009/09/06	91	40 - 130	86	40 - 130	<0.01	mg/kg	NC	50		
3399651	2-Methylnaphthalene	2009/09/06	93	40 - 130	86	40 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthylene	2009/09/06	84	40 - 130	78	40 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthene	2009/09/06	89	40 - 130	84	40 - 130	<0.01	mg/kg	NC	50		
3399651	Fluorene	2009/09/06	88	40 - 130	82	40 - 130	<0.01	mg/kg	NC	50		
3399651	Phenanthrene	2009/09/06	91	40 - 130	88	40 - 130	<0.01	mg/kg	NC	50		
3399651	Anthracene	2009/09/06	88	40 - 130	83	40 - 130	<0.01	mg/kg	NC	50		
3399651	Fluoranthene	2009/09/06	90	40 - 130	84	40 - 130	<0.01	mg/kg	NC	50		
3399651	Pyrene	2009/09/06	86	40 - 130	82	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)anthracene	2009/09/06	86	40 - 130	78	40 - 130	<0.01	mg/kg	NC	50		
3399651	Chrysene	2009/09/06	83	40 - 130	80	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(b&j)fluoranthene	2009/09/06	90	40 - 130	80	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(k)fluoranthene	2009/09/06	92	40 - 130	88	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)pyrene	2009/09/06	93	40 - 130	86	40 - 130	<0.01	mg/kg	NC	50		
3399651	Indeno(1,2,3-cd)pyrene	2009/09/06	90	40 - 130	82	40 - 130	<0.02	mg/kg	NC	50		
3399651	Dibenz(a,h)anthracene	2009/09/06	91	40 - 130	83	40 - 130	<0.02	mg/kg	NC	50		
3399651	Benzo(g,h,i)perylene	2009/09/06	88	40 - 130	81	40 - 130	<0.02	mg/kg	NC	50		
3399824	1,2-dichlorobenzene	2009/09/07	104	60 - 140	101	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,3-dichlorobenzene	2009/09/07	108	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,4-dichlorobenzene	2009/09/07	99	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorobenzene	2009/09/07	102	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	Benzene	2009/09/07	102	60 - 140	95	60 - 140	<0.005	mg/kg	NC	50		
3399824	Ethylbenzene	2009/09/07	111	60 - 140	103	60 - 140	<0.01	mg/kg	NC	50		
3399824	m & p-Xylene	2009/09/07	115	60 - 140	106	60 - 140	<0.1	mg/kg	NC	50		
3399824	o-Xylene	2009/09/07	105	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399824	Styrene	2009/09/07	100	60 - 140	94	60 - 140	<0.1	mg/kg	NC	50		
3399824	Toluene	2009/09/07	99	60 - 140	91	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1,2-tetrachloroethane	2009/09/07	103	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1-trichloroethane	2009/09/07	113	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2,2-tetrachloroethane	2009/09/07	80	60 - 140	78	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2-trichloroethane	2009/09/07	87	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethane	2009/09/07	106	60 - 140	98	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethene	2009/09/07	117	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloroethane	2009/09/07	89	60 - 140	82	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloropropane	2009/09/07	101	60 - 140	94	60 - 140	<0.03	mg/kg	NC	50		
3399824	4-BROMOFLUOROBENZENE (sur.)	2009/09/07			101	70 - 130	86	%				
3399824	Bromodichloromethane	2009/09/07	96	60 - 140	88	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromoform	2009/09/07	72	60 - 140	68	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromomethane	2009/09/07	69	40 - 150	71	40 - 150	<0.3	mg/kg	NC	50		
3399824	Carbon tetrachloride	2009/09/07	118	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorodibromomethane	2009/09/07	92	60 - 140	86	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloroethane	2009/09/07	52	40 - 150	107	40 - 150	<0.1	mg/kg	NC	50		
3399824	Chloroform	2009/09/07	103	60 - 140	95	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloromethane	2009/09/07	99	40 - 150	94	40 - 150	<0.1	mg/kg	NC	50		
3399824	cis-1,2-dichloroethene	2009/09/07	104	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	cis-1,3-dichloropropene	2009/09/07	55 (1)	60 - 140	57 (2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	D10-ETHYLBENZENE (sur.)	2009/09/07			97	50 - 130	105	%				
3399824	D4-1,2-DICHLOROETHANE (sur.)	2009/09/07			85	70 - 130	82	%				
3399824	D8-TOLUENE (sur.)	2009/09/07			103	70 - 130	100	%				
3399824	Dibromoethane	2009/09/07	85	60 - 140	79	60 - 140	<0.03	mg/kg	NC	50		
3399824	Dichloromethane	2009/09/07	87	60 - 140	80	60 - 140	<0.1	mg/kg	NC	50		
3399824	Tetrachloroethene	2009/09/07	115	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,2-dichloroethene	2009/09/07	112	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,3-dichloropropene	2009/09/07	41 (1)	60 - 140	44 (2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	Trichloroethene	2009/09/07	114	60 - 140	105	60 - 140	<0.01	mg/kg	NC	50		
3399824	Trichlorofluoromethane	2009/09/07	116	40 - 150	106	40 - 150	<0.2	mg/kg	NC	50		
3399824	Vinyl chloride	2009/09/07	24 (1)	40 - 150	24 (2)	40 - 150	<0.08	mg/kg	NC	50		
3399824	Xylenes (Total)	2009/09/07					<0.1	mg/kg	NC	50		
3399824	Methyl-tert-butylether(MTBE)	2009/09/07					<0.1	mg/kg	NC	50		
3399837	1,2-dichlorobenzene	2009/09/06	106	60 - 140	102	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,3-dichlorobenzene	2009/09/06	108	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,4-dichlorobenzene	2009/09/06	99	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorobenzene	2009/09/06	102	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Benzene	2009/09/06	102	60 - 140	99	60 - 140	<0.005	mg/kg	NC	50		
3399837	Ethylbenzene	2009/09/06	111	60 - 140	107	60 - 140	<0.01	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399837	m & p-Xylene	2009/09/06	116	60 - 140	112	60 - 140	<0.1	mg/kg	NC	50		
3399837	o-Xylene	2009/09/06	107	60 - 140	103	60 - 140	<0.1	mg/kg	NC	50		
3399837	Styrene	2009/09/06	103	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		
3399837	Toluene	2009/09/06	98	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1,2-tetrachloroethane	2009/09/06	104	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1-trichloroethane	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2,2-tetrachloroethane	2009/09/06	81	60 - 140	81	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2-trichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethane	2009/09/06	106	60 - 140	103	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethene	2009/09/06	115	60 - 140	109	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloropropane	2009/09/06	101	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			99	70 - 130	84	%				
3399837	Bromodichloromethane	2009/09/06	96	60 - 140	92	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromoform	2009/09/06	73	60 - 140	70	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromomethane	2009/09/06	72	40 - 150	66	40 - 150	<0.3	mg/kg	NC	50		
3399837	Carbon tetrachloride	2009/09/06	116	60 - 140	111	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorodibromomethane	2009/09/06	93	60 - 140	89	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloroethane	2009/09/06	110	40 - 150	48	40 - 150	<0.1	mg/kg	NC	50		
3399837	Chloroform	2009/09/06	102	60 - 140	99	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloromethane	2009/09/06	87	40 - 150	88	40 - 150	<0.1	mg/kg	NC	50		
3399837	cis-1,2-dichloroethene	2009/09/06	103	60 - 140	100	60 - 140	<0.03	mg/kg	NC	50		
3399837	cis-1,3-dichloropropene	2009/09/06	69	60 - 140	67	60 - 140	<0.05	mg/kg	NC	50		
3399837	D10-ETHYLBENZENE (sur.)	2009/09/06			99	50 - 130	106	%				
3399837	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			84	70 - 130	79	%				
3399837	D8-TOLUENE (sur.)	2009/09/06			102	70 - 130	100	%				
3399837	Dibromoethane	2009/09/06	85	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399837	Dichloromethane	2009/09/06	86	60 - 140	84	60 - 140	<0.1	mg/kg	NC	50		
3399837	Tetrachloroethene	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,2-dichloroethene	2009/09/06	112	60 - 140	108	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,3-dichloropropene	2009/09/06	53(1)	60 - 140	52(2)	60 - 140	<0.05	mg/kg	NC	50		
3399837	Trichloroethene	2009/09/06	113	60 - 140	109	60 - 140	<0.01	mg/kg	NC	50		
3399837	Trichlorofluoromethane	2009/09/06	108	40 - 150	105	40 - 150	<0.2	mg/kg	NC	50		
3399837	Vinyl chloride	2009/09/06	22(1)	40 - 150	20(2)	40 - 150	<0.08	mg/kg	NC	50		
3399837	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	50		
3399837	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	50		
3399909	F1 (C06-C10)	2009/09/07					<10	mg/kg	NC	50	87	80 - 120
3399912	F1 (C06-C10)	2009/09/06					<10	mg/kg	NC	50	97	80 - 120
3400091	O-TERPHENYL (sur.)	2009/09/08			96	50 - 130	101	%				
3400091	F2 (C10-C16 Hydrocarbons)	2009/09/08			98	80 - 120	<10	mg/kg	NC	40		

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400091	F3 (C16-C34 Hydrocarbons)	2009/09/08			105	80 - 120	<10	mg/kg	32.3	40		
3400091	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.3	40		
3400091	Reached Baseline at C50	2009/09/08			YES	N/A	YES, RDL=N/A	mg/kg	NC	50		
3400175	D10-ANTHRACENE (sur.)	2009/09/08			92	30 - 130	118	%				
3400175	D12-BENZO(A)PYRENE (sur.)	2009/09/08			88	30 - 130	111	%				
3400175	D8-ACENAPHTHYLENE (sur.)	2009/09/08			87	30 - 130	107	%				
3400175	TERPHENYL-D14 (sur.)	2009/09/08			86	30 - 130	108	%				
3400175	Naphthalene	2009/09/08			107	40 - 130	<0.01	mg/kg	NC	50		
3400175	2-Methylnaphthalene	2009/09/08			108	40 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthylene	2009/09/08			94	40 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthene	2009/09/08			99	40 - 130	<0.01	mg/kg	NC	50		
3400175	Fluorene	2009/09/08			96	40 - 130	<0.01	mg/kg	NC	50		
3400175	Phenanthrene	2009/09/08			110	40 - 130	<0.01	mg/kg	NC	50		
3400175	Anthracene	2009/09/08			106	40 - 130	<0.01	mg/kg	NC	50		
3400175	Fluoranthene	2009/09/08			106	40 - 130	<0.01	mg/kg	NC	50		
3400175	Pyrene	2009/09/08			100	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)anthracene	2009/09/08			101	40 - 130	<0.01	mg/kg	NC	50		
3400175	Chrysene	2009/09/08			100	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(b&j)fluoranthene	2009/09/08			106	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(k)fluoranthene	2009/09/08			108	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)pyrene	2009/09/08			105	40 - 130	<0.01	mg/kg	NC	50		
3400175	Indeno(1,2,3-cd)pyrene	2009/09/08			93	40 - 130	<0.02	mg/kg	NC	50		
3400175	Dibenz(a,h)anthracene	2009/09/08			93	40 - 130	<0.02	mg/kg	NC	50		
3400175	Benzo(g,h,i)perylene	2009/09/08			90	40 - 130	<0.02	mg/kg	NC	50		
3400184	D10-ANTHRACENE (sur.)	2009/09/09			92	30 - 130	115	%				
3400184	D12-BENZO(A)PYRENE (sur.)	2009/09/09			93	30 - 130	109	%				
3400184	D8-ACENAPHTHYLENE (sur.)	2009/09/09			92	30 - 130	103	%				
3400184	TERPHENYL-D14 (sur.)	2009/09/09			91	30 - 130	104	%				
3400184	Naphthalene	2009/09/09			101	40 - 130	<0.01	mg/kg	22.0	50		
3400184	2-Methylnaphthalene	2009/09/09			103	40 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthylene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthene	2009/09/09			97	40 - 130	<0.01	mg/kg	NC	50		
3400184	Fluorene	2009/09/09			100	40 - 130	<0.01	mg/kg	NC	50		
3400184	Phenanthrene	2009/09/09			99	40 - 130	<0.01	mg/kg	NC	50		
3400184	Anthracene	2009/09/09			98	40 - 130	<0.01	mg/kg	NC	50		
3400184	Fluoranthene	2009/09/09			97	40 - 130	<0.01	mg/kg	NC	50		
3400184	Pyrene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)anthracene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3400184	Chrysene	2009/09/09			92	40 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(b&j)fluoranthene	2009/09/09			94	40 - 130	<0.01	mg/kg	NC	50		

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Maxxam Analytics - Partial/Rush Results

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400184	Benzo(k)fluoranthene	2009/09/09			100	40 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)pyrene	2009/09/09			95	40 - 130	<0.01	mg/kg	NC	50		
3400184	Indeno(1,2,3-cd)pyrene	2009/09/09			97	40 - 130	<0.02	mg/kg	NC	50		
3400184	Dibenz(a,h)anthracene	2009/09/09			94	40 - 130	<0.02	mg/kg	NC	50		
3400184	Benzo(g,h,i)perylene	2009/09/09			97	40 - 130	<0.02	mg/kg	NC	50		
3401373	D10-ANTHRACENE (sur.)	2009/09/09			96	30 - 130	116	%				
3401373	D12-BENZO(A)PYRENE (sur.)	2009/09/09			92	30 - 130	106	%				
3401373	D8-ACENAPHTHYLENE (sur.)	2009/09/09			95	30 - 130	103	%				
3401373	TERPHENYL-D14 (sur.)	2009/09/09			92	30 - 130	102	%				
3401373	Naphthalene	2009/09/09			94	40 - 130	<0.01	mg/kg	NC	50		
3401373	2-Methylnaphthalene	2009/09/09			97	40 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthylene	2009/09/09			88	40 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthene	2009/09/09			96	40 - 130	<0.01	mg/kg	NC	50		
3401373	Fluorene	2009/09/09			99	40 - 130	<0.01	mg/kg	NC	50		
3401373	Phenanthrene	2009/09/09			101	40 - 130	<0.01	mg/kg	NC	50		
3401373	Anthracene	2009/09/09			89	40 - 130	<0.01	mg/kg	NC	50		
3401373	Fluoranthene	2009/09/09			95	40 - 130	<0.01	mg/kg	NC	50		
3401373	Pyrene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)anthracene	2009/09/09			90	40 - 130	<0.01	mg/kg	NC	50		
3401373	Chrysene	2009/09/09			89	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(b&j)fluoranthene	2009/09/09			92	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(k)fluoranthene	2009/09/09			93	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)pyrene	2009/09/09			94	40 - 130	<0.01	mg/kg	NC	50		
3401373	Indeno(1,2,3-cd)pyrene	2009/09/09			89	40 - 130	<0.02	mg/kg	NC	50		
3401373	Dibenz(a,h)anthracene	2009/09/09			89	40 - 130	<0.02	mg/kg	NC	50		
3401373	Benzo(g,h,i)perylene	2009/09/09			89	40 - 130	<0.02	mg/kg	NC	50		
3401543	Total Arsenic (As)	2009/09/09			100	75 - 125	<0.2	mg/kg	0.6	30	92	70 - 130
3401543	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3401543	Total Cadmium (Cd)	2009/09/09			103	75 - 125	<0.05	mg/kg	0.05	30	83	70 - 130
3401543	Total Chromium (Cr)	2009/09/09			102	75 - 125	<1	mg/kg	3.8	30	98	70 - 130
3401543	Total Cobalt (Co)	2009/09/09			102	75 - 125	<0.3	mg/kg	2.6	30	94	70 - 130
3401543	Total Copper (Cu)	2009/09/09			103	75 - 125	<0.5	mg/kg	0.4	30	94	70 - 130
3401543	Total Lead (Pb)	2009/09/09			100	75 - 125	<0.1	mg/kg	1.9	35	98	70 - 130
3401543	Total Mercury (Hg)	2009/09/09			107	75 - 125	<0.05	mg/kg	NC	35		
3401543	Total Nickel (Ni)	2009/09/09			104	75 - 125	<0.8	mg/kg	1.2	30	94	70 - 130
3401543	Total Selenium (Se)	2009/09/09			107	75 - 125	<0.5	mg/kg	NC	30		
3401543	Total Vanadium (V)	2009/09/09			122	75 - 125	2, RDL=2	mg/kg	0.9	30	124	70 - 130
3401543	Total Zinc (Zn)	2009/09/09			108	75 - 125	<1	mg/kg	1.4	30	97	70 - 130
3401543	Total Aluminum (Al)	2009/09/09					<100	mg/kg	1	35	107	70 - 130
3401543	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	1.4	30	100	70 - 130

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401543	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	1	35	111	70 - 130
3401543	Total Calcium (Ca)	2009/09/09					<100	mg/kg	0.5	30	91	70 - 130
3401543	Total Iron (Fe)	2009/09/09					<100	mg/kg	2.1	30	102	70 - 130
3401543	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.1	30	99	70 - 130
3401543	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	7.2	30	100	70 - 130
3401543	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	2.3	35	91	70 - 130
3401543	Total Phosphorus (P)	2009/09/09					<10	mg/kg	5.1	30	101	70 - 130
3401543	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	1.5	35	95	70 - 130
3401543	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	1.5	35	102	70 - 130
3401543	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	90	70 - 130
3401543	Total Titanium (Ti)	2009/09/09					<1	mg/kg	2.2	35	120	70 - 130
3401543	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	8.9	30		
3401543	Total Potassium (K)	2009/09/09					<100	mg/kg	4.8	35		
3401543	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401543	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	3.9	35		
3401543	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	17.3	30		
3401600	Total Arsenic (As)	2009/09/09	101	75 - 125	97	75 - 125	<0.2	mg/kg	2.3	30	83	70 - 130
3401600	Total Beryllium (Be)	2009/09/09	106	75 - 125	97	75 - 125	<0.1	mg/kg	NC	30		
3401600	Total Cadmium (Cd)	2009/09/09	106	75 - 125	98	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3401600	Total Chromium (Cr)	2009/09/09	109	75 - 125	103	75 - 125	<1	mg/kg	12.0	30	97	70 - 130
3401600	Total Cobalt (Co)	2009/09/09	104	75 - 125	103	75 - 125	<0.3	mg/kg	8.5	30	88	70 - 130
3401600	Total Copper (Cu)	2009/09/09	104	75 - 125	103	75 - 125	<0.5	mg/kg	11.1	30	89	70 - 130
3401600	Total Lead (Pb)	2009/09/09	103	75 - 125	100	75 - 125	<0.1	mg/kg	8.6	35	91	70 - 130
3401600	Total Mercury (Hg)	2009/09/09	107	75 - 125	106	75 - 125	<0.05	mg/kg	NC	35		
3401600	Total Nickel (Ni)	2009/09/09	102	75 - 125	101	75 - 125	<0.8	mg/kg	9.7	30	89	70 - 130
3401600	Total Selenium (Se)	2009/09/09	111	75 - 125	108	75 - 125	<0.5	mg/kg	NC	30		
3401600	Total Vanadium (V)	2009/09/09	NC	75 - 125	122	75 - 125	<2	mg/kg	10.1	30	119	70 - 130
3401600	Total Zinc (Zn)	2009/09/09	105	75 - 125	108	75 - 125	<1	mg/kg	12.8	30	92	70 - 130
3401600	Total Aluminum (Al)	2009/09/09					<100	mg/kg	12.0	35	103	70 - 130
3401600	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	83	70 - 130
3401600	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	8.7	35	103	70 - 130
3401600	Total Calcium (Ca)	2009/09/09					<100	mg/kg	4.2	30	89	70 - 130
3401600	Total Iron (Fe)	2009/09/09					<100	mg/kg	10.1	30	96	70 - 130
3401600	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.5	30	95	70 - 130
3401600	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	6.2	30	93	70 - 130
3401600	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	NC	35	94	70 - 130
3401600	Total Phosphorus (P)	2009/09/09					<10	mg/kg	2.8	30	94	70 - 130
3401600	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	84	70 - 130
3401600	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	8.0	35	94	70 - 130
3401600	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	78	70 - 130

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401600	Total Titanium (Ti)	2009/09/09					<1	mg/kg	11.0	35	113	70 - 130
3401600	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3401600	Total Potassium (K)	2009/09/09					<100	mg/kg	7.2	35		
3401600	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401600	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3401600	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	11.5	30		
3402570	Total Arsenic (As)	2009/09/10			101	75 - 125	<0.2	mg/kg	3.2	30	90	70 - 130
3402570	Total Beryllium (Be)	2009/09/10			103	75 - 125	<0.1	mg/kg	NC	30		
3402570	Total Cadmium (Cd)	2009/09/10			101	75 - 125	<0.05	mg/kg	2.3	30	78	70 - 130
3402570	Total Chromium (Cr)	2009/09/10			102	75 - 125	<1	mg/kg	1.3	30	88	70 - 130
3402570	Total Cobalt (Co)	2009/09/10			104	75 - 125	<0.3	mg/kg	1.2	30	87	70 - 130
3402570	Total Copper (Cu)	2009/09/10			106	75 - 125	<0.5	mg/kg	1.5	30	88	70 - 130
3402570	Total Lead (Pb)	2009/09/10			101	75 - 125	<0.1	mg/kg	1.3	35	93	70 - 130
3402570	Total Mercury (Hg)	2009/09/10			109	75 - 125	<0.05	mg/kg	NC	35		
3402570	Total Nickel (Ni)	2009/09/10			103	75 - 125	<0.8	mg/kg	0.9	30	86	70 - 130
3402570	Total Selenium (Se)	2009/09/10			108	75 - 125	<0.5	mg/kg	NC	30		
3402570	Total Vanadium (V)	2009/09/10			123	75 - 125	<2	mg/kg	2.3	30	110	70 - 130
3402570	Total Zinc (Zn)	2009/09/10			110	75 - 125	<1	mg/kg	3.4	30	90	70 - 130
3402570	Total Aluminum (Al)	2009/09/10					<100	mg/kg	15.4	35	88	70 - 130
3402570	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	89	70 - 130
3402570	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	2.3	35	106	70 - 130
3402570	Total Calcium (Ca)	2009/09/10					<100	mg/kg	4.6	30	89	70 - 130
3402570	Total Iron (Fe)	2009/09/10					<100	mg/kg	1	30	93	70 - 130
3402570	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.6	30	91	70 - 130
3402570	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	3.6	30	96	70 - 130
3402570	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	6.2	35	74	70 - 130
3402570	Total Phosphorus (P)	2009/09/10					<10	mg/kg	1.7	30	104	70 - 130
3402570	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	88	70 - 130
3402570	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	1.6	35	97	70 - 130
3402570	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	76	70 - 130
3402570	Total Titanium (Ti)	2009/09/10					<1	mg/kg	1.6	35	105	70 - 130
3402570	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402570	Total Potassium (K)	2009/09/10					<100	mg/kg	13.1	35		
3402570	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402570	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402570	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3402612	Total Arsenic (As)	2009/09/10			103	75 - 125	<0.2	mg/kg	0.6	30	86	70 - 130
3402612	Total Beryllium (Be)	2009/09/10			107	75 - 125	<0.1	mg/kg	NC	30		
3402612	Total Cadmium (Cd)	2009/09/10			103	75 - 125	<0.05	mg/kg	NC	30	81	70 - 130
3402612	Total Chromium (Cr)	2009/09/10			106	75 - 125	<1	mg/kg	1.3	30	91	70 - 130

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3402612	Total Cobalt (Co)	2009/09/10			107	75 - 125	<0.3	mg/kg	1.4	30	89	70 - 130
3402612	Total Copper (Cu)	2009/09/10			109	75 - 125	<0.5	mg/kg	4.8	30	88	70 - 130
3402612	Total Lead (Pb)	2009/09/10			106	75 - 125	<0.1	mg/kg	0.8	35	95	70 - 130
3402612	Total Mercury (Hg)	2009/09/10			112	75 - 125	<0.05	mg/kg	NC	35		
3402612	Total Nickel (Ni)	2009/09/10			105	75 - 125	<0.8	mg/kg	2.3	30	88	70 - 130
3402612	Total Selenium (Se)	2009/09/10			114	75 - 125	<0.5	mg/kg	NC	30		
3402612	Total Vanadium (V)	2009/09/10			115	75 - 125	<2	mg/kg	2.0	30	113	70 - 130
3402612	Total Zinc (Zn)	2009/09/10			115	75 - 125	<1	mg/kg	10.2	30	95	70 - 130
3402612	Total Aluminum (Al)	2009/09/10					<100	mg/kg	3.1	35	96	70 - 130
3402612	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	86	70 - 130
3402612	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	1.2	35	107	70 - 130
3402612	Total Calcium (Ca)	2009/09/10					<100	mg/kg	1.6	30	101	70 - 130
3402612	Total Iron (Fe)	2009/09/10					<100	mg/kg	7.4	30	87	70 - 130
3402612	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.2	30	111	70 - 130
3402612	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	7.5	30	99	70 - 130
3402612	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	NC	35	83	70 - 130
3402612	Total Phosphorus (P)	2009/09/10					<10	mg/kg	2.1	30	93	70 - 130
3402612	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	86	70 - 130
3402612	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	9.2	35	100	70 - 130
3402612	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	79	70 - 130
3402612	Total Titanium (Ti)	2009/09/10					<1	mg/kg	4.5	35	108	70 - 130
3402612	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402612	Total Potassium (K)	2009/09/10					<100	mg/kg	5.1	35		
3402612	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402612	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402612	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3404758	Total Arsenic (As)	2009/09/09			98	75 - 125	<0.2	mg/kg	5.0	30	86	70 - 130
3404758	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3404758	Total Cadmium (Cd)	2009/09/09			100	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Chromium (Cr)	2009/09/09			97	75 - 125	<1	mg/kg	0.1	30	92	70 - 130
3404758	Total Cobalt (Co)	2009/09/09			99	75 - 125	<0.3	mg/kg	0.2	30	86	70 - 130
3404758	Total Copper (Cu)	2009/09/09			101	75 - 125	<0.5	mg/kg	1.4	30	86	70 - 130
3404758	Total Lead (Pb)	2009/09/09			97	75 - 125	<0.1	mg/kg	0.3	35	94	70 - 130
3404758	Total Mercury (Hg)	2009/09/09			104	75 - 125	<0.05	mg/kg	NC	35		
3404758	Total Nickel (Ni)	2009/09/09			94	75 - 125	<0.8	mg/kg	1.5	30	87	70 - 130
3404758	Total Selenium (Se)	2009/09/09			106	75 - 125	<0.5	mg/kg	NC	30		
3404758	Total Vanadium (V)	2009/09/09			121	75 - 125	<2	mg/kg	1.7	30	123	70 - 130
3404758	Total Zinc (Zn)	2009/09/09			102	75 - 125	<1	mg/kg	1.9	30	88	70 - 130
3404758	Total Aluminum (Al)	2009/09/09					<100	mg/kg	8.6	35	105	70 - 130
3404758	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	103	70 - 130

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3404758	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	0.04	35	109	70 - 130
3404758	Total Calcium (Ca)	2009/09/09					<100	mg/kg	1.5	30	90	70 - 130
3404758	Total Iron (Fe)	2009/09/09					<100	mg/kg	3.3	30	93	70 - 130
3404758	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	1.9	30	95	70 - 130
3404758	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	0.7	30	95	70 - 130
3404758	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	8.5	35	89	70 - 130
3404758	Total Phosphorus (P)	2009/09/09					<10	mg/kg	3.6	30	91	70 - 130
3404758	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	94	70 - 130
3404758	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	0.04	35	99	70 - 130
3404758	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Titanium (Ti)	2009/09/09					<1	mg/kg	0.2	35	113	70 - 130
3404758	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3404758	Total Potassium (K)	2009/09/09					<100	mg/kg	11.5	35		
3404758	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3404758	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3404758	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	NC	30		
3404986	Extractable (Water) SULFOLANE (sur.)	2009/09/10			100	60 - 140	98	%				
3404986	Extractable (Water) Ethylene Glycol	2009/09/10			106	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Diethylene Glycol	2009/09/10			108	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Triethylene Glycol	2009/09/10			114	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Tetraethylene Glycol	2009/09/10			126	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Propylene Glycol	2009/09/10			97	30 - 130	<10	mg/kg	NC	40		
3405247	O-TERPHENYL (sur.)	2009/09/09			80	50 - 130	88	%				
3405247	F2 (C10-C16 Hydrocarbons)	2009/09/09	99	50 - 130	104	80 - 120	<10	mg/kg	NC	40		
3405247	F3 (C16-C34 Hydrocarbons)	2009/09/09	102	50 - 130	103	80 - 120	<10	mg/kg	NC	40		
3405247	F4 (C34-C50 Hydrocarbons)	2009/09/09	99	50 - 130	100	80 - 120	<10	mg/kg	NC	40		
3405247	Reached Baseline at C50	2009/09/09							NC	50		
3407604	Soluble (2:1) pH	2009/09/11			100	96 - 104			0	20		
3410083	O-TERPHENYL (sur.)	2009/09/11			88	50 - 130	92	%				
3410083	F2 (C10-C16 Hydrocarbons)	2009/09/11	109	50 - 130	99	80 - 120	<10	mg/kg	NC	40		
3410083	F3 (C16-C34 Hydrocarbons)	2009/09/11	116	50 - 130	102	80 - 120	<10	mg/kg	5.1	40		
3410083	F4 (C34-C50 Hydrocarbons)	2009/09/11	121	50 - 130	111	80 - 120	<10	mg/kg	NC	40		
3410083	Reached Baseline at C50	2009/09/11							NC	50		

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A947822
Report Date: 2009/09/18

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3410846	Soluble (2:1) pH	2009/09/12			100	96 - 104			0.8	20		
3412134	Soluble (2:1) pH	2009/09/12			100	96 - 104			0	20		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) - LCS outside acceptance criteria (10% of analytes failure allowed)

Maxxam Analytics - Partial/Rush Results

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80795 A-947822

CHAIN OF CUSTODY

Page: 1 of 48

Invoice To: Require Report? Yes ☐ No ☐

Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: jsmith@franzenvironmental.com and jkeenliside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1743-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PCB	VOC	PAH	WATERS: BTEX F1 ☐ VOCs	BTEX F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[2] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	3-09-1-1	S	09/08/29	X								X	X											3
2	3-09-2-1	S			X																			2
3	3-09-2-2	S		X								[illegible]	[illegible]											2
4	3-09-3-1	S																					X	2
5	3-09-3-2	S		X																				1
6	3-09-4H1	S																					X	3
7	3-09-4H2	S		X	X																			3
8	3-09-4H-3	S		X							X	X	X											3
9	3-09-DUP-1	S		X								X	X											3
10	3-09-5H-1	S																					X	3
11	3-09-5H-2	S		X																				3
12	3-09-5H-3	S																					X	3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Viviane Date/Time: Aug 31 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 1590	2.2.2 4.5.6 9.9.9	9.1.0.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80794 **CHAIN OF CUSTODY** Page: 2 of 8

Invoice To: Require Report? Yes ☐ No ☐

Company Name: FRANZ ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND ST. VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9941

Report To:

Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS: BTEX F1 ☐ VOCs	BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[4] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): 8 glycols	Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	3-09-6M-1	S	2009/08/29																				X	3
2	3-09-6M-2	S																					X	3
3	3-09-6M-3	S		X																				3
4	3-09-DUP-2	S		X																				3
5	1-09-1M-1	S		X																				5
6	1-09-2M-1	S		X			X				X	X	X									X	X	5
7	1-09-3M-1	S		X			X																	5
8																								
9																								
10																								
11																								
12																								

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vicki Dolo **Date/Time:** Aug 31, 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15 50	2.1 2 9.10.9	
	CUSTODY SEAL YES / NO	4.5.6 9.9.9	

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80792

CHAIN OF CUSTODY

Page: 3 of 8

Invoice To: Require Report? Yes ☐ No ☐

Company Name: Franz environmental
Contact Name: 308-1080 mainland
Address: Vancouver
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
jsmith@franzenvironmental.com
and jvanliside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: FAB-0901
Project Name: Cambridge Bay
Location:
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☑ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS: ☐ VOCs	☐ BTEX F1 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	1-09-4M-1	S	2009/08/30	X			X																	2
2	1-09-SM-1	S		X			X				X													2
3	1-09-6M-1	S		X	X		X				X	X	X											3
4	1-09-DUP-1	S		X																				2
5	4a-09-1M-1	S		X																				3
6	4a-09-2M-1	S		X																				3
7	4a-09-3M-1	S		X			X				X		X											3
8	4a-09-DUP-1	S		X																				3
9	4A-09-4-1	S		X			X				X		X											3
10	4A-09-5-1	S		X			X				X		X											3
11	4A-09-6-1	S		X																				3
12	4A-09-6-2	S		X																				3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vicaire Dolo Date/Time: Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By 09/09/12 MA 15:50	Temperature 2/2/12 4/5/6 9/9/9	Ice 9/09/09
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80793 **CHAIN OF CUSTODY** Page: 4 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND ST VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: SAME AS invoice
jsmith@franzenvironmental.com and jteenhuis@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: MC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[2]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	4A-09-71	S	2009/08/30	X																3
2	4A-09-8-1	S	2009/08/30	X																3
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivian Dodd **Date/Time:** Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 02/09/09 15:50	2,2,2 4,5,6 9,9,9	9,10,9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80791 **CHAIN OF CUSTODY**
Page: 5 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
JSmith@franzenvironmental.com and jkennedside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 7448-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb- ☐ F	Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Filtered	REGULATED METALS (CCME / AT1)[2]	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	5-09TP3-3	S	2009/08/30																				X	3
2	5-09TP3-4	S		[illegible]			[illegible]				[illegible]	[illegible]											X	3
3	5-09TP4-1	S																					X	3
4	5-09TP4-2	S																					X	3
5	5-09TP4[illegible]-3	S		X			X				X	X												3
6	6-09TP1-2	S																					X	3
7	6-09TP1-1	S																					X	3
8	6-09TP1-3	S		X			X				X	X												3
9	[illegible] BG-1	S					X																	1
10	BG2	S					X																	1
11	BG-3	S					X																	1
12																								

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

MaxXam Job #:

Relinquished By: Vanessa Date **Date/Time:** Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2,2,2 4,5,6 9,9,9	9,10,9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80785 **CHAIN OF CUSTODY** # 6 Page: 6 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name:
Address: James Smith - Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To: James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☑ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	☐ Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Tier1 ☐ F	REGULATED METALS (CCME / AT1)[3]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	5-09-TP1-1	S	2009/08/30	X			X				X	X										3
2	5-09-TP1-2	S																			X	3
3	5-09-TP1-3	S																			X	3
4	5-09-TP2-1	S		X			X				X	X										3
5	5-09-TP2-2	S																			X	3
6	5-09-TP2-3	S																			X	3
7	5-09-TP3-1	S		X			X				X	X										3
8	5-09-TP3-2	S																			X	3
9																						
10																						
11																						
12																						

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vanessa Stolz **Date/Time:** Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 4.5.6. 9.9.9. 9.10.9	
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80786 **CHAIN OF CUSTODY** Page: 7 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: VANCOUVER
Prov: PC:
Contact #s: Ph: 604-632-9941 Fax:

Report To: James Smith
jsmith@franzenvironmental.com
jkeenliside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0991
Project Name: Cambridge Bay
Location:
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOCs	PAH	PCB	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[2]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): Restriction?	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP1 1	S	2009/08/29										X											5
2	2-09-TP1-2	S		X			X				X													3
3	2-09TP2-1	S																					X	5
4	2-09-TP2-2	S		X			X				X	X	X								X			5
5	2-09-TP3-1	S		X			X				X	X	X											3
6	2-09-TP3-2	S																					X	3
7	2-09-TP4	S		X			X				X													3
8	2-09-TP5-1	S		X			X				X													3
9	2-09-TP6-1	S		X			X				X													3
10	2-09-TP7-1	S		X			X				X													3
11	2-09-TP8-1	S		X			X														X			3
12	2-09-TP9-1	S	↓	X			X					X	X											3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Viviane Dolet Date/Time: Aug 31/2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2,2,2 4,5,6 9,9,9	9,10,9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80787 **CHAIN OF CUSTODY** Page: 8 of 8

Invoice To: Require Report? Yes ☒ No ☐
Company Name: Fraser environmental
Contact Name:
Address: Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To:
James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1348-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOCs	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[1]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP10-1	S	2009/08/29	X			X				X											3
2	GR2	S	2009/08/29	X			X				X									{ if not enough jars just perform BTEX/metals }		3
3	2-09-TPDUP-1	S	2009/08/29	X			X				X											2
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivienne Dodo **Date/Time:** Aug 31 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 4.5.6. 9.9.9.	9.10.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Your Project #: A947822
Your C.O.C. #: n/a

Attention: Kimberley Webber
Maxxam Analytics
8577 Commerce Crt
Burnaby, BC
V5A 4N5

Report Date: 2009/09/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B6098
Received: 2009/09/04, 10:40

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
MOISTURE	8	N/A	2009/09/09	CAM SOP-00445	McKeague 2nd ed 1978
OC Pesticides (Selected) & PCB (1)	3	2009/09/09	2009/09/09	CAM SOP-00307	SW846 8081, 8082
Polychlorinated Biphenyl in Soil	7	2009/09/08	2009/09/08	CAM SOP-00309	SW846 8082

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

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DP3378	DP3379	DP3380	DP3381	DP3382		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**Q57104 \ 2-09-TP3-1**	**RDL**	**QC Batch**
Moisture	%	9.8	8.7	11	22	5.9	0.2	1933152

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DP3383	DP3384	DP7276		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q57110 \ 2-09-TP8-1**	**Q57111 \ 2-09-TP9-1**	**Q56940 \ 3-09-4M-3**	**RDL**	**QC Batch**
Moisture	%	14	18	8.9	0.2	1933152

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3379	DP3380	DP3381		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**RDL**	**QC Batch**
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Total PCB	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Surrogate Recovery (%)							
2,4,5,6-Tetrachloro-m-xylene	%	76	83	77	89	N/A	1931812
Decachlorobiphenyl	%	79	80	74	75	N/A	1931812

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3382	DP3384	DP7276		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q57104 \ 2-09-TP3-1**	**Q57111 \ 2-09-TP9-1**	**Q56940 \ 3-09-4M-3**	**RDL**	**QC Batch**
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Total PCB	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	70	68	65	N/A	1931812
Decachlorobiphenyl	%	75	69	70	N/A	1931812

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Hexachlorobutadiene	ug/g	<0.01	<0.01	<0.01	0.01	1933312
Aldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
b-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
d-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
g-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Chlordane (Total)	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD + p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE + p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT + p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
DDT+ Metabolites	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Dieldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan I	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan II	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan sulfate	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Total Endosulfan	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin aldehyde	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin ketone	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor epoxide	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Hexachlorobenzene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Lindane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Methoxychlor	ug/g	<0.008	<0.008	<0.008	0.008	1933312
Mirex	ug/g	<0.002	<0.002	<0.002	0.002	1933312

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Octachlorostyrene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Toxaphene	ug/g	<0.08	<0.08	<0.08	0.08	1933312
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	73	70	73	N/A	1933312
Decachlorobiphenyl	%	90	91	93	N/A	1933312

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

Package 1	8.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report

Maxxam Job Number: MA9B6098

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1931812	LGA	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2009/09/08		94	%	40 - 130
			Decachlorobiphenyl	2009/09/08		85	%	40 - 130
			Aroclor 1260	2009/09/08		112	%	30 - 130
			Total PCB	2009/09/08		112	%	30 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/08		100	%	40 - 130
			Decachlorobiphenyl	2009/09/08		83	%	40 - 130
			Aroclor 1260	2009/09/08		108	%	30 - 130
			Total PCB	2009/09/08		108	%	30 - 130
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/08		96	%	40 - 130
			Decachlorobiphenyl	2009/09/08		83	%	40 - 130
			Aroclor 1262	2009/09/08	<0.01		ug/g	
			Aroclor 1016	2009/09/08	<0.01		ug/g	
			Aroclor 1221	2009/09/08	<0.01		ug/g	
			Aroclor 1232	2009/09/08	<0.01		ug/g	
			Aroclor 1242	2009/09/08	<0.01		ug/g	
			Aroclor 1248	2009/09/08	<0.01		ug/g	
			Aroclor 1254	2009/09/08	<0.01		ug/g	
			Aroclor 1260	2009/09/08	<0.01		ug/g	
			Aroclor 1268	2009/09/08	<0.01		ug/g	
			Total PCB	2009/09/08	<0.01		ug/g	
		RPD	Aroclor 1262	2009/09/08	NC		%	50
			Aroclor 1016	2009/09/08	NC		%	50
			Aroclor 1221	2009/09/08	NC		%	50
			Aroclor 1232	2009/09/08	NC		%	50
			Aroclor 1242	2009/09/08	NC		%	50
			Aroclor 1248	2009/09/08	NC		%	50
			Aroclor 1254	2009/09/08	NC		%	50
			Aroclor 1260	2009/09/08	NC		%	50
			Aroclor 1268	2009/09/08	NC		%	50
			Total PCB	2009/09/08	NC		%	50
1933152	FF	RPD	Moisture	2009/09/09	0.6		%	50
1933312	DH	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2009/09/09		45	%	40 - 130
			Decachlorobiphenyl	2009/09/09		87	%	40 - 130
			Hexachlorobutadiene	2009/09/09		34	%	N/A
			Aldrin	2009/09/09		68	%	40 - 130
			a-BHC	2009/09/09		54	%	40 - 130
			b-BHC	2009/09/09		75	%	40 - 130
			d-BHC	2009/09/09		89	%	40 - 130
			a-Chlordane	2009/09/09		79	%	40 - 130
			g-Chlordane	2009/09/09		86	%	40 - 130
			o,p-DDD	2009/09/09		89	%	40 - 130
			p,p-DDD	2009/09/09		93	%	40 - 130
			o,p-DDE	2009/09/09		81	%	40 - 130
			p,p-DDE	2009/09/09		86	%	40 - 130
			o,p-DDT	2009/09/09		85	%	40 - 130
			p,p-DDT	2009/09/09		99	%	40 - 130
			Dieldrin	2009/09/09		90	%	40 - 130
			Endosulfan I	2009/09/09		79	%	40 - 130
			Endosulfan II	2009/09/09		95	%	40 - 130
			Endosulfan sulfate	2009/09/09		92	%	40 - 130
			Endrin	2009/09/09		85	%	40 - 130
			Endrin aldehyde	2009/09/09		77	%	40 - 130
			Endrin ketone	2009/09/09		99	%	40 - 130
			Heptachlor	2009/09/09		59	%	40 - 130
			Heptachlor epoxide	2009/09/09		71	%	40 - 130

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA9B6098

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1933312	DH	Matrix Spike	Hexachlorobenzene	2009/09/09		53	%	20 - 130
			Lindane	2009/09/09		71	%	40 - 130
			Methoxychlor	2009/09/09		87	%	40 - 130
			Mirex	2009/09/09		87	%	40 - 130
			Octachlorostyrene	2009/09/09		76	%	40 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/09		67	%	40 - 130
			Decachlorobiphenyl	2009/09/09		84	%	40 - 130
			Hexachlorobutadiene	2009/09/09		73	%	N/A
			Aldrin	2009/09/09		79	%	40 - 130
			a-BHC	2009/09/09		69	%	40 - 130
			b-BHC	2009/09/09		79	%	40 - 130
			d-BHC	2009/09/09		94	%	40 - 130
			a-Chlordane	2009/09/09		83	%	40 - 130
			g-Chlordane	2009/09/09		89	%	40 - 130
			o,p-DDD	2009/09/09		90	%	40 - 130
			p,p-DDD	2009/09/09		104	%	40 - 130
			o,p-DDE	2009/09/09		87	%	40 - 130
			p,p-DDE	2009/09/09		87	%	40 - 130
			o,p-DDT	2009/09/09		97	%	40 - 130
			p,p-DDT	2009/09/09		114	%	40 - 130
			Dieldrin	2009/09/09		95	%	40 - 130
			Endosulfan I	2009/09/09		85	%	40 - 130
			Endosulfan II	2009/09/09		101	%	40 - 130
			Endosulfan sulfate	2009/09/09		95	%	40 - 130
			Endrin	2009/09/09		92	%	40 - 130
			Endrin aldehyde	2009/09/09		112	%	40 - 130
			Endrin ketone	2009/09/09		100	%	40 - 130
			Heptachlor	2009/09/09		68	%	40 - 130
			Heptachlor epoxide	2009/09/09		74	%	40 - 130
			Hexachlorobenzene	2009/09/09		67	%	20 - 130
			Lindane	2009/09/09		87	%	40 - 130
			Methoxychlor	2009/09/09		94	%	40 - 130
			Mirex	2009/09/09		83	%	40 - 130
			Octachlorostyrene	2009/09/09		90	%	40 - 130
		RPD	Toxaphene	2009/09/09	NC		%	50
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/09		68	%	40 - 130
			Decachlorobiphenyl	2009/09/09		89	%	40 - 130
			Hexachlorobutadiene	2009/09/09	<0.01		ug/g	
			Aldrin	2009/09/09	<0.002		ug/g	
			a-BHC	2009/09/09	<0.002		ug/g	
			b-BHC	2009/09/09	<0.002		ug/g	
			d-BHC	2009/09/09	<0.002		ug/g	
			a-Chlordane	2009/09/09	<0.002		ug/g	
			g-Chlordane	2009/09/09	<0.002		ug/g	
			Chlordane (Total)	2009/09/09	<0.002		ug/g	
			o,p-DDD	2009/09/09	<0.002		ug/g	
			p,p-DDD	2009/09/09	<0.002		ug/g	
			o,p-DDD + p,p-DDD	2009/09/09	<0.002		ug/g	
			o,p-DDE	2009/09/09	<0.002		ug/g	
			p,p-DDE	2009/09/09	<0.002		ug/g	
			o,p-DDE + p,p-DDE	2009/09/09	<0.002		ug/g	
			o,p-DDT	2009/09/09	<0.002		ug/g	
			p,p-DDT	2009/09/09	<0.002		ug/g	
			o,p-DDT + p,p-DDT	2009/09/09	<0.002		ug/g	
			DDT+ Metabolites	2009/09/09	<0.002		ug/g	

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA9B6098

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1933312	DH	Method Blank	Dieldrin	2009/09/09	<0.002		ug/g	
			Endosulfan I	2009/09/09	<0.002		ug/g	
			Endosulfan II	2009/09/09	<0.002		ug/g	
			Endosulfan sulfate	2009/09/09	<0.002		ug/g	
			Total Endosulfan	2009/09/09	<0.002		ug/g	
			Endrin	2009/09/09	<0.002		ug/g	
			Endrin aldehyde	2009/09/09	<0.002		ug/g	
			Endrin ketone	2009/09/09	<0.002		ug/g	
			Heptachlor	2009/09/09	<0.002		ug/g	
			Heptachlor epoxide	2009/09/09	<0.002		ug/g	
			Hexachlorobenzene	2009/09/09	<0.002		ug/g	
			Lindane	2009/09/09	<0.002		ug/g	
			Methoxychlor	2009/09/09	<0.008		ug/g	
			Mirex	2009/09/09	<0.002		ug/g	
			Octachlorostyrene	2009/09/09	<0.002		ug/g	
			Toxaphene	2009/09/09	<0.08		ug/g	
		RPD	Hexachlorobutadiene	2009/09/09	NC		%	50
			Aldrin	2009/09/09	NC		%	50
			a-BHC	2009/09/09	NC		%	50
			b-BHC	2009/09/09	NC		%	50
			d-BHC	2009/09/09	NC		%	50
			a-Chlordane	2009/09/09	NC		%	50
			g-Chlordane	2009/09/09	NC		%	50
			Chlordane (Total)	2009/09/09	NC		%	50
			o,p-DDD	2009/09/09	NC		%	50
			p,p-DDD	2009/09/09	NC		%	50
			o,p-DDD + p,p-DDD	2009/09/09	NC		%	50
			o,p-DDE	2009/09/09	NC		%	50
			p,p-DDE	2009/09/09	NC		%	50
			o,p-DDE + p,p-DDE	2009/09/09	NC		%	50
			o,p-DDT	2009/09/09	NC		%	50
			p,p-DDT	2009/09/09	NC		%	50
			o,p-DDT + p,p-DDT	2009/09/09	NC		%	50
			DDT+ Metabolites	2009/09/09	NC		%	50
			Dieldrin	2009/09/09	NC		%	50
			Endosulfan I	2009/09/09	NC		%	50
			Endosulfan II	2009/09/09	NC		%	50
			Endosulfan sulfate	2009/09/09	NC		%	50
			Total Endosulfan	2009/09/09	NC		%	50
			Endrin	2009/09/09	NC		%	50
			Endrin aldehyde	2009/09/09	NC		%	50
			Endrin ketone	2009/09/09	NC		%	50
			Heptachlor	2009/09/09	NC		%	50
			Heptachlor epoxide	2009/09/09	NC		%	50
			Hexachlorobenzene	2009/09/09	NC		%	50
			Lindane	2009/09/09	NC		%	50
			Methoxychlor	2009/09/09	NC		%	50
			Mirex	2009/09/09	NC		%	50
			Octachlorostyrene	2009/09/09	NC		%	50

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA9B6098

reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B6098

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

CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst

CRISTINA CARRIERE, 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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: A947822
Your C.O.C. #: na

Attention: Kimberley Webber
Maxxam Analytics
8577 Commerce Crt
Burnaby, BC
V5A 4N5

Report Date: 2009/09/18

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B7918
Received: 2009/09/09, 13:17

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PFOS and PFOA in soil	5	2009/09/11	2009/09/16	CAM SOP-00894	In house method

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

Encryption Key

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DQ3180		DQ3181		
Sampling Date		2009/08/29		2009/08/29		
	Units	**Q56933-03R\3-09-1-1**	**QC Batch**	**Q56937-01R\3-09-3-2**	**RDL**	**QC Batch**
Miscellaneous Parameters						
Perfluoro-1-Octanesulfonate (PFOS)	ng/g	830	1942158	<25	25	1936161
Perfluoro-n-Octanoic Acid (PFOA)	ng/g	<2.5	1936161	5.8	2.5	1936161

Maxxam ID		DQ3182	DQ3183		DQ3184		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		
	Units	**Q56940-03R\3-09-4M-3**	**Q56941-03R\3-09-DUP-1**	**QC Batch**	**Q56947-03R\3-09-6M-3**	**RDL**	**QC Batch**
Miscellaneous Parameters							
Perfluoro-1-Octanesulfonate (PFOS)	ng/g	620	820	1936161	53	25	1942158
Perfluoro-n-Octanoic Acid (PFOA)	ng/g	9.6	3.2	1936161	5.5	2.5	1936161

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

PFOS and PFOA in soil: The recovery of PFOS in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.
Duplicate results exceeded RPD acceptance criteria for PFOS. This may be due to sample heterogeneity.

Sample DQ3180, PFOS and PFOA in soil: Test repeated.
PFOS and PFOA in soil: The recovery of PFOS in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.

Sample DQ3184, PFOS and PFOA in soil: Test repeated.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1936161	Perfluoro-1-Octanesulfonate (PFOS)	2009/09/16	NC	N/A	113	N/A	<25	ng/g		
1936161	Perfluoro-n-Octanoic Acid (PFOA)	2009/09/16	112	N/A	88	N/A	<2.5	ng/g	NC	20
1942158	Perfluoro-1-Octanesulfonate (PFOS)	2009/09/18	N/C	N/A	108	N/A	<25	ng/g	NC	20

N/A = Not Applicable
RPD = Relative Percent Difference
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B7918

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

ADAM ROBINSON, Technical Service

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1748-0901
Site: CAMBRIDGE BAY
Your C.O.C. #: 80795, 80794, 80792, 80793, 80791, 80785, 80786, 80787

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2009/09/22

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A947822
Received: 2009/09/02, 15:50

Sample Matrix: Soil
Samples Received: 47

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/MTBE Soil LH, VH, F1 SIM/MS	10	2009/09/04	2009/09/05	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	8	2009/09/04	2009/09/06	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	1	2009/09/04	2009/09/07	BRN-SOP-0304 R10.0	EPA SW846 8260B
Volatile F1-BTEX	1	N/A	2009/09/07		
Volatile F1-BTEX	17	N/A	2009/09/08		
Volatile F1-BTEX	21	N/A	2009/09/09		
Volatile F1-BTEX	3	N/A	2009/09/10		
CCME Hydrocarbons (F2-F4 in soil)	26	2009/09/04	2009/09/08	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	11	2009/09/04	2009/09/09	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	5	2009/09/04	2009/09/11	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons-SilicaGel (F4 in soil)	3	2009/09/22	2009/09/22	ORG420 Rev. 0.0	CCME Soil Tier1
Ethylene, Di, Tri & Tetraethylene glycol	1	2009/09/09	2009/09/10	BRN SOP-00307R6	Based on EPA 8015B
Elements by ICPMS (total)	8	2009/09/08	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	17	2009/09/08	2009/09/10	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	2	2009/09/09	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Particulate Mesh 200 Ø	3	N/A	2009/09/08	NA	NA
Moisture	42	N/A	2009/09/05	BRN SOP-00321 R5.0	Ont MOE -E 3139
PAH in Soil by GC/MS (SIM)	5	2009/09/04	2009/09/05	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	3	2009/09/04	2009/09/06	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	1	2009/09/04	2009/09/08	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	7	2009/09/04	2009/09/09	BRN SOP-00332 R9.0	Based on EPA 8270D
Total LMW, HMW, Total PAH Calc	8	N/A	2009/09/08		
Total LMW, HMW, Total PAH Calc	1	N/A	2009/09/09		
Total LMW, HMW, Total PAH Calc	7	N/A	2009/09/10		
pH (2:1 DI Water Extract) Ø	4	2009/09/09	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) Ø	4	2009/09/10	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) Ø	19	2009/09/11	2009/09/12	BRN SOP-00266 R6.0	Carter, SSMA 16.2
CCME F1 C6-C10 in Soil by GC/FID Ø	8	2009/09/04	2009/09/06		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID Ø	12	2009/09/04	2009/09/07		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID Ø	3	2009/09/04	2009/09/10		Based on EPA SW8260B
Sublet (Inorganics) Ø	5	N/A	2009/09/16		
VOCs in Soil by HS GC/MS	7	2009/09/04	2009/09/06	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	15	2009/09/04	2009/09/07	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	1	2009/09/04	2009/09/09	BRN SOP-00311 R8.0	Based on EPA 8260B
Pesticides, OC Soil Subcontract Ø	3	2009/09/11	2009/09/09		
PCB Soil Subcontract Ø	7	2009/09/14	2009/09/08		

* Results relate only to the items tested.

(1) This test was performed by Maxxam Ontario (From Burnaby)
(2) SCC/CAEAL
(3) SCC/CAEAL/NELAC

Encryption Key

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

KIMBERLEY WEBBER, BBY Customer Service
Email: kim.webber@maxxamanalytics.com
Phone# (604) 444-4808 Ext:259

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q56933	Q56934		Q56935		Q56937	Q56939	Q56940	Q56941	Q56943		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**3-09-1-1**	**3-09-2-1**	**QC Batch**	**3-09-2-2**	**QC Batch**	**3-09-3-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-DUP-1**	**3-09-5M-2**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A	ATTACHED		3159742			ATTACHED		ATTACHED	ATTACHED		N/A	3159742
Physical Properties													
<200 mesh (>.075 mm)	%		43.7	3398902				59.3				0.1	3398902
>200 mesh (<.075 mm)	%		56.3	3398902				40.8				0.1	3398902
Moisture	%	5.6		3395524	7.3	3395624	6.5	8.4	8.9	5.8	5.3	0.3	3395524

Maxxam ID		Q56947	Q56948	Q56949		Q56950	Q56951		Q56978	Q56979	Q56980		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/30	2009/08/30	2009/08/30		
	Units	**3-09-6M-3**	**3-09-DUP-2**	**1-09-1M-1**	**QC Batch**	**1-09-2M-1**	**1-09-3M-1**	**QC Batch**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A	ATTACHED			3159742	ATTACHED		2627069			ATTACHED	N/A	3145118
Physical Properties													
<200 mesh (>.075 mm)	%				3398902						36.4	0.1	3398902
>200 mesh (<.075 mm)	%				3398902						63.6	0.1	3398902
Moisture	%	10	9.5	7.4	3395524	9.1	9.5	3395524	11	8.6	10	0.3	3395624

Maxxam ID		Q56981	Q56982	Q56983	Q56984	Q56985	Q56986	Q56987	Q56988	Q56989		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-DUP-1**	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**4A-09-4-1**	**4A-09-5-1**	**4A-09-6-1**	**4A-09-6-2**	**RDL**	**QC Batch**
Physical Properties												
Moisture	%	11	11	8.7	12	11	9.9	9.7	5.6	11	0.3	3395624

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q57022	Q57023		Q57029	Q57032	Q57059	Q57062	Q57065	Q57100	Q57101		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-7-1**	**4A-09-8-1**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-1**	**2-09-TP1-2**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A			3145118						ATTACHED		N/A	3145118
Physical Properties													
Moisture	%	8.8	12	3395624	6.2	11	19	21	13		15	0.3	3395627

Maxxam ID		Q57103		Q57104	Q57106	Q57107	Q57108	Q57109		
Sampling Date		2009/08/29		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP2-2**	**QC Batch**	**2-09-TP3-1**	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**RDL**	**QC Batch**
Parameter										
Subcontract Parameter	N/A	ATTACHED	2627069	ATTACHED					N/A	3145118
Physical Properties										
Moisture	%	24	3395627	16	22	8.9	17	11	0.3	3395627

Maxxam ID		Q57110	Q57110		Q57111	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP8-1**	**2-09-TP8-1 Lab-Dup**	**QC Batch**	**2-09-TP9-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Parameter									
Subcontract Parameter	N/A	ATTACHED		2627069	ATTACHED			N/A	3145118
Physical Properties									
Moisture	%	9.3	10	3395627	32	27	2.4	0.3	3395627

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q56933	Q56935	Q56937	Q56939	Q56940	Q56941	Q56943	Q56947		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**3-09-1-1**	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-DUP-1**	**3-09-5M-2**	**3-09-6M-3**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon											
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	16	27	<10	1700	850	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	220	<10	<10	13	17	430	30	160	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	190	<10	<10	<10	<10	190	<10	<10	10	3398109
Reached Baseline at C50	mg/kg	NO	YES	YES	YES	YES	YES	YES	YES	N/A	3398109
OIL & GREASE											
F4SG (Heavy Hydrocarbons-SilicaGel)	mg/kg	3300								100	3437023
Surrogate Recovery (%)											
O-TERPHENYL (sur.)	%	89	92	102	101	100	85	97	100		3398109

Maxxam ID		Q56948	Q56949	Q56950	Q56951		Q56978	Q56979	Q56980		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/30	2009/08/30	2009/08/30		
	Units	**3-09-DUP-2**	**1-09-1M-1**	**1-09-2M-1**	**1-09-3M-1**	**QC Batch**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon											
F2 (C10-C16 Hydrocarbons)	mg/kg	860	<10	<10	<10	3400091	<10	<10	<10	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	180	<10	<10	<10	3400091	<10	10	<10	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	<10	3400091	<10	<10	<10	10	3398109
Reached Baseline at C50	mg/kg	YES	YES	YES	YES	3400091	YES	YES	YES	N/A	3398109
Surrogate Recovery (%)											
O-TERPHENYL (sur.)	%	106	100	97	102	3400091	76	110	105		3398109

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q56981	Q56981		Q56982	Q56983	Q56984	Q56985		Q56986		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30		
	Units	**1-09-DUP-1**	**1-09-DUP-1 Lab-Dup**	**QC Batch**	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**QC Batch**	**4A-09-4-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	740	<10	3400091	3700	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	14	3405247	22	<10	140	<10	3400091	520	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	<10	<10	3400091	11	10	3398109
Reached Baseline at C50	mg/kg	YES	YES	3405247	YES	YES	YES	YES	3400091	YES	N/A	3398109
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	79	69	3405247	106	105	93	97	3400091	69		3398109

Maxxam ID		Q56987	Q56988	Q56989	Q56989	Q57022		Q57023	Q57029	Q57032		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-5-1**	**4A-09-6-1**	**4A-09-6-2**	**4A-09-6-2 Lab-Dup**	**4A-09-7-1**	**QC Batch**	**4A-09-8-1**	**5-09TP4-3**	**6-09TP1-3**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	12000	<10	<10		<10	3398109	150	<10	<10	10	3405247
F3 (C16-C34 Hydrocarbons)	mg/kg	6400	110	27		<10	3398109	120	<10	35	10	3405247
F4 (C34-C50 Hydrocarbons)	mg/kg	3900	94	15		<10	3398109	<10	<10	<10	10	3405247
Reached Baseline at C50	mg/kg	YES	NO	NO		YES	3398109	YES	YES	YES	N/A	3405247
OIL & GREASE												
F4SG (Heavy Hydrocarbons-SilicaGel)	mg/kg		5500	2300	2500		3437023				100	
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	93	103	91		94	3398109	82	82	70		3405247

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104	Q57106		Q57107		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	<10	<10	<10	<10	3405247	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	47	350	50	19	<10	<10	3405247	66	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	23	<10	<10	<10	<10	3405247	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	YES	YES	YES	YES	YES	YES	3405247	YES	N/A	3410083
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	76	87	83	91	88	84	77	3405247	91		3410083

Maxxam ID		Q57107	Q57108	Q57109		Q57110	Q57111		Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29		
	Units	**2-09-TP5-1 Lab-Dup**	**2-09-TP6-1**	**2-09-TP7-1**	**QC Batch**	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	3410083	13	31	3400091	13	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	63	65	23	3410083	120	52	3400091	39	74	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	3410083	18	<10	3400091	<10	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	YES	YES	3410083	YES	YES	3400091	YES	YES	N/A	3410083
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	91	97	93	3410083	99	96	3400091	92	94		3410083

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

GLYCOLS BY GC-FID (SOIL)

Maxxam ID		Q56950		
Sampling Date		2009/08/29		
	Units	**1-09-2M-1**	**RDL**	**QC Batch**
Glycols				
Extractable (Water) Ethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Diethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Triethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Tetraethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Propylene Glycol	mg/kg	<10	10	3404986
Surrogate Recovery (%)				
Extractable (Water) SULFOLANE (sur.)	%	86		3404986

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56935	Q56937	Q56939	Q56943		Q56947	Q56947		Q56948		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/29		
	Units	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-5M-2**	**QC Batch**	**3-09-6M-3**	**3-09-6M-3 Lab-Dup**	**QC Batch**	**3-09-DUP-2**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	28	110	3393756	120		3393756	88	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	0.015	<0.005	0.86	<0.005	3398448	0.005	<0.005	3398449	<0.005	0.005	3398448
Ethylbenzene	mg/kg	<0.01	<0.01	0.05	<0.01	3398448	0.08	0.08	3398449	0.10	0.01	3398448
m & p-Xylene	mg/kg	<0.1	<0.1	0.3	<0.1	3398448	2.1	2.0	3398449	1.6	0.1	3398448
o-Xylene	mg/kg	<0.1	<0.1	0.1	<0.1	3398448	0.9	0.8	3398449	0.6	0.1	3398448
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Toluene	mg/kg	0.07	<0.05	0.16	<0.05	3398448	<0.05	<0.05	3398449	<0.05	0.05	3398448
Xylenes (Total)	mg/kg	<0.1	<0.1	0.5	<0.1	3398448	2.9	2.8	3398449	2.3	0.1	3398448
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	29	110	3398448	120	110	3398449	90	10	3398448
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	101	100	99	106	3398448	109	108	3398449	115		3398448
D10-ETHYLBENZENE (sur.)	%	102	98	102	101	3398448	107	106	3398449	102		3398448
D4-1,2-DICHLOROETHANE (sur.)	%	93	93	93	94	3398448	98	97	3398449	94		3398448
D8-TOLUENE (sur.)	%	103	102	102	98	3398448	100	100	3398449	98		3398448

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56949	Q56951	Q56978	Q56981	Q56982		Q56983	Q56983	Q56985		
Sampling Date		2009/08/29	2009/08/29	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-1M-1**	**1-09-3M-1**	**1-09-4M-1**	**1-09-DUP-1**	**4A-09-1M-1**	**QC Batch**	**4A-09-2M-1**	**4A-09-2M-1 Lab-Dup**	**4A-09-DUP-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	3393756	<10		<10	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	3398448	<0.005	<0.005	0.009	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	3398448	<0.01	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	3398448	<0.05	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	<10	<10	<10	3398448	<10	<10	<10	10	3399617
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	106	101	101	100	99	3398448	101	100	101		3399617
D10-ETHYLBENZENE (sur.)	%	101	100	96	102	94	3398448	100	100	100		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	92	94	100	97	101	3398448	102	103	104		3399617
D8-TOLUENE (sur.)	%	102	102	101	101	102	3398448	97	98	98		3399617

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56988	Q56989	Q57022	Q57023	Q57110	Q57111		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-6-1**	**4A-09-6-2**	**4A-09-7-1**	**4A-09-8-1**	**2-09-TP8-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	32	180	<10	<10	10	3393756
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	0.046	<0.005	<0.005	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	0.02	0.07	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	2.0	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	2.5	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons									
(C6-C10)	mg/kg	<10	<10	32	180	<10	<10	10	3399617
Volatiles									
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	100	101	102	111	100	103		3399617
D10-ETHYLBENZENE (sur.)	%	103	100	102	100	99	98		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	102	104	103	105	103	105		3399617
D8-TOLUENE (sur.)	%	98	98	98	99	97	97		3399617

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56950		Q56951	Q56978	Q56979	Q56980	Q56980	Q56984	Q56986		
Sampling Date		2009/08/29		2009/08/29	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-2M-1**	**QC Batch**	**1-09-3M-1**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**1-09-6M-1 Lab-Dup**	**4A-09-3M-1**	**4A-09-4-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.39	3407604	8.10	8.28	7.87	8.17	8.17	7.98	8.03	0.01	3407604
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	7100	3401543	7540	8490	3540	8170	9210	4310	4280	100	3401600
Total Antimony (Sb)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.1	3401600
Total Arsenic (As)	mg/kg	1.3	3401543	1.2	1.7	1.0	1.9	1.9	2.7	1.9	0.2	3401600
Total Barium (Ba)	mg/kg	37.3	3401543	35.2	40.3	21.7	38.6	42.0	27.2	28.3	0.1	3401600
Total Beryllium (Be)	mg/kg	0.5	3401543	0.5	0.5	0.2	0.4	0.5	0.3	0.2	0.1	3401600
Total Bismuth (Bi)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3401600
Total Cadmium (Cd)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.08	0.05	3401600
Total Calcium (Ca)	mg/kg	42600	3401543	31700	35600	44800	49100	51200	75700	75900	100	3401600
Total Chromium (Cr)	mg/kg	18	3401543	14	21	7	18	20	11	10	1	3401600
Total Cobalt (Co)	mg/kg	5.4	3401543	5.6	5.2	3.1	5.7	6.2	3.9	3.4	0.3	3401600
Total Copper (Cu)	mg/kg	12.2	3401543	23.8	12.0	16.5	12.3	13.7	9.0	8.2	0.5	3401600
Total Iron (Fe)	mg/kg	12500	3401543	10700	13700	7990	12500	13900	10600	9540	100	3401600
Total Lead (Pb)	mg/kg	5.1	3401543	4.9	4.9	3.5	5.1	5.6	13.5	14.4	0.1	3401600
Total Magnesium (Mg)	mg/kg	26300	3401543	19500	23200	24300	29000	31200	40300	43100	100	3401600
Total Manganese (Mn)	mg/kg	231	3401543	192	229	187	247	262	328	275	0.2	3401600
Total Mercury (Hg)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3401600
Total Molybdenum (Mo)	mg/kg	0.5	3401543	0.2	0.4	0.3	0.3	0.3	0.6	0.5	0.1	3401600
Total Nickel (Ni)	mg/kg	12.4	3401543	11.8	12.2	6.2	13.1	14.5	10.0	9.0	0.8	3401600
Total Phosphorus (P)	mg/kg	484	3401543	458	505	383	512	526	625	451	10	3401600
Total Potassium (K)	mg/kg	3180	3401543	3990	3320	1520	3470	3720	1900	1890	100	3401600
Total Selenium (Se)	mg/kg	<0.5	3401543	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3401600
Total Silver (Ag)	mg/kg	0.06	3401543	0.06	0.06	<0.05	0.06	0.06	<0.05	<0.05	0.05	3401600
Total Sodium (Na)	mg/kg	310	3401543	266	337	143	310	336	184	180	100	3401600
Total Strontium (Sr)	mg/kg	27.7	3401543	23.5	25.1	20.2	26.5	28.7	43.5	38.7	0.1	3401600
Total Thallium (Tl)	mg/kg	0.12	3401543	0.15	0.12	0.08	0.14	0.15	0.10	0.09	0.05	3401600
Total Tin (Sn)	mg/kg	0.3	3401543	0.3	0.4	0.1	0.3	0.4	0.2	0.2	0.1	3401600
Total Titanium (Ti)	mg/kg	415	3401543	219	562	157	433	483	184	192	1	3401600
Total Vanadium (V)	mg/kg	28	3401543	20	33	15	28	31	22	19	2	3401600
Total Zinc (Zn)	mg/kg	21	3401543	13	23	7	19	22	13	11	1	3401600
Total Zirconium (Zr)	mg/kg	5.7	3401543	5.9	5.8	2.1	5.6	6.3	2.9	2.8	0.5	3401600

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56987		Q57029	Q57029		Q57032	Q57033		Q57034		
Sampling Date		2009/08/30		2009/08/30	2009/08/30		2009/08/30	2009/08/30		2009/08/30		
	Units	**4A-09-5-1**	**QC Batch**	**5-09TP4-3**	**5-09TP4-3 Lab-Dup**	**QC Batch**	**6-09TP1-3**	**BG-1**	**QC Batch**	**BG-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.55	3407604	8.49	8.42	3410846	7.96	8.17	3412134	8.29	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3940	3401600	4420		3402570	4830	2470	3402612	2800	100	3402570
Total Antimony (Sb)	mg/kg	0.2	3401600	<0.1		3402570	0.1	<0.1	3402612	<0.1	0.1	3402570
Total Arsenic (As)	mg/kg	1.5	3401600	0.7		3402570	0.7	0.5	3402612	1.4	0.2	3402570
Total Barium (Ba)	mg/kg	25.3	3401600	33.3		3402570	32.3	21.6	3402612	18.6	0.1	3402570
Total Beryllium (Be)	mg/kg	0.4	3401600	0.3		3402570	0.3	0.2	3402612	0.3	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3401600	<0.1		3402570	<0.1	<0.1	3402612	<0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	0.39	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	92900	3401600	57400		3402570	53100	64600	3402612	51800	100	3402570
Total Chromium (Cr)	mg/kg	9	3401600	9		3402570	12	7	3402612	7	1	3402570
Total Cobalt (Co)	mg/kg	3.7	3401600	4.7		3402570	4.7	2.6	3402612	3.6	0.3	3402570
Total Copper (Cu)	mg/kg	10.8	3401600	9.3		3402570	10.4	8.7	3402612	8.4	0.5	3402570
Total Iron (Fe)	mg/kg	10100	3401600	9010		3402570	10400	9690	3402612	7750	100	3402570
Total Lead (Pb)	mg/kg	294	3401600	7.5		3402570	5.9	4.3	3402612	3.9	0.1	3402570
Total Magnesium (Mg)	mg/kg	53500	3401600	30400		3402570	31000	37000	3402612	28500	100	3402570
Total Manganese (Mn)	mg/kg	350	3401600	247		3402570	257	295	3402612	230	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.7	3401600	0.3		3402570	0.3	0.2	3402612	0.1	0.1	3402570
Total Nickel (Ni)	mg/kg	9.5	3401600	10.7		3402570	10.8	6.8	3402612	8.0	0.8	3402570
Total Phosphorus (P)	mg/kg	373	3401600	460		3402570	560	541	3402612	681	10	3402570
Total Potassium (K)	mg/kg	2250	3401600	2250		3402570	2220	1110	3402612	1520	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3401600	<0.5		3402570	<0.5	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3401600	0.06		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Sodium (Na)	mg/kg	195	3401600	229		3402570	149	<100	3402612	119	100	3402570
Total Strontium (Sr)	mg/kg	35.6	3401600	21.6		3402570	27.3	23.6	3402612	21.0	0.1	3402570
Total Thallium (Tl)	mg/kg	0.08	3401600	0.11		3402570	0.12	0.08	3402612	0.08	0.05	3402570
Total Tin (Sn)	mg/kg	0.3	3401600	0.2		3402570	0.2	0.1	3402612	0.2	0.1	3402570
Total Titanium (Ti)	mg/kg	122	3401600	188		3402570	260	121	3402612	126	1	3402570
Total Vanadium (V)	mg/kg	17	3401600	14		3402570	20	13	3402612	12	2	3402570
Total Zinc (Zn)	mg/kg	13	3401600	13		3402570	16	7	3402612	10	1	3402570
Total Zirconium (Zr)	mg/kg	3.1	3401600	3.9		3402570	2.9	2.5	3402612	3.7	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57035	Q57059		Q57062		Q57065	Q57101		Q57103		
Sampling Date		2009/08/30	2009/08/30		2009/08/30		2009/08/30	2009/08/29		2009/08/29		
	Units	**BG-3**	**5-09-TP1-1**	**QC Batch**	**5-09-TP2-1**	**QC Batch**	**5-09-TP3-1**	**2-09-TP1-2**	**QC Batch**	**2-09-TP2-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.34	8.28	3412134	8.29	3410846	8.60	7.30	3412134	7.75	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3310	6630	3402612	2640	3402570	3300	3560	3402612	8920	100	3404758
Total Antimony (Sb)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	0.3	0.2	3402612	0.2	0.1	3404758
Total Arsenic (As)	mg/kg	0.9	2.1	3402612	2.4	3402570	1.6	1.8	3402612	8.5	0.2	3404758
Total Barium (Ba)	mg/kg	19.4	35.5	3402612	28.2	3402570	35.6	41.4	3402612	60.3	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.3	3402612	0.4	3402570	0.3	0.3	3402612	0.6	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	<0.1	<0.1	3402612	<0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	0.14	3402612	<0.05	3402570	0.05	0.07	3402612	0.11	0.05	3404758
Total Calcium (Ca)	mg/kg	53000	53900	3402612	95400	3402570	91400	67900	3402612	54200	100	3404758
Total Chromium (Cr)	mg/kg	8	15	3402612	12	3402570	9	11	3402612	27	1	3404758
Total Cobalt (Co)	mg/kg	3.7	6.7	3402612	7.1	3402570	3.6	3.3	3402612	5.1	0.3	3404758
Total Copper (Cu)	mg/kg	8.0	11.8	3402612	13.7	3402570	8.0	28.7	3402612	12.5	0.5	3404758
Total Iron (Fe)	mg/kg	7400	13100	3402612	15200	3402570	9350	9650	3402612	16300	100	3404758
Total Lead (Pb)	mg/kg	3.5	6.5	3402612	10.6	3402570	16.9	4.9	3402612	6.2	0.1	3404758
Total Magnesium (Mg)	mg/kg	30900	32300	3402612	54000	3402570	51600	35400	3402612	33400	100	3404758
Total Manganese (Mn)	mg/kg	212	340	3402612	535	3402570	322	265	3402612	224	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402612	<0.05	3402570	<0.05	<0.05	3402612	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	0.2	0.5	3402612	0.7	3402570	0.6	0.8	3402612	3.4	0.1	3404758
Total Nickel (Ni)	mg/kg	8.7	14.8	3402612	18.2	3402570	8.7	14.4	3402612	15.5	0.8	3404758
Total Phosphorus (P)	mg/kg	464	583	3402612	1240	3402570	514	717	3402612	713	10	3404758
Total Potassium (K)	mg/kg	1690	2530	3402612	1750	3402570	1790	1500	3402612	3590	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402612	<0.5	3402570	<0.5	0.9	3402612	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	<0.05	0.06	3402612	0.07	3402570	<0.05	0.05	3402612	0.08	0.05	3404758
Total Sodium (Na)	mg/kg	135	179	3402612	180	3402570	163	329	3402612	585	100	3404758
Total Strontium (Sr)	mg/kg	20.2	26.9	3402612	47.4	3402570	34.5	27.2	3402612	35.6	0.1	3404758
Total Thallium (Tl)	mg/kg	0.09	0.13	3402612	0.08	3402570	0.09	0.13	3402612	0.14	0.05	3404758
Total Tin (Sn)	mg/kg	0.2	0.3	3402612	0.2	3402570	0.2	0.2	3402612	0.4	0.1	3404758
Total Titanium (Ti)	mg/kg	142	299	3402612	69	3402570	134	156	3402612	604	1	3404758
Total Vanadium (V)	mg/kg	13	22	3402612	21	3402570	14	18	3402612	43	2	3404758
Total Zinc (Zn)	mg/kg	9	34	3402612	8	3402570	12	15	3402612	32	1	3404758
Total Zirconium (Zr)	mg/kg	3.3	4.8	3402612	5.2	3402570	2.4	4.4	3402612	6.3	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57104		Q57106		Q57107		Q57108		Q57109		
Sampling Date		2009/08/29		2009/08/29		2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP3-1**	**QC Batch**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**QC Batch**	**2-09-TP6-1**	**QC Batch**	**2-09-TP7-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	7.90	3410846	8.49	3412134	8.02	3412134	8.09	3412134	8.12	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	4800	3402570	2950	3402612	4050	3402570	3860	3402612	3850	100	3402570
Total Antimony (Sb)	mg/kg	<0.1	3402570	<0.1	3402612	0.1	3402570	0.6	3402612	0.2	0.1	3402570
Total Arsenic (As)	mg/kg	1.8	3402570	1.6	3402612	3.3	3402570	40.6	3402612	6.5	0.2	3402570
Total Barium (Ba)	mg/kg	27.1	3402570	24.0	3402612	20.2	3402570	32.3	3402612	19.9	0.1	3402570
Total Beryllium (Be)	mg/kg	0.3	3402570	0.3	3402612	0.5	3402570	0.7	3402612	0.6	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3402570	<0.1	3402612	0.2	3402570	0.1	3402612	0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	<0.05	3402570	<0.05	3402612	1.45	3402570	0.06	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	54700	3402570	85900	3402612	81100	3402570	40800	3402612	31600	100	3402570
Total Chromium (Cr)	mg/kg	12	3402570	8	3402612	20	3402570	16	3402612	15	1	3402570
Total Cobalt (Co)	mg/kg	4.3	3402570	3.6	3402612	6.1	3402570	10.1	3402612	13.7	0.3	3402570
Total Copper (Cu)	mg/kg	12.0	3402570	8.5	3402612	94.5	3402570	24.5	3402612	20.0	0.5	3402570
Total Iron (Fe)	mg/kg	11100	3402570	8520	3402612	16200	3402570	51000	3402612	18200	100	3402570
Total Lead (Pb)	mg/kg	3.6	3402570	3.6	3402612	21.4	3402570	24.5	3402612	21.2	0.1	3402570
Total Magnesium (Mg)	mg/kg	32500	3402570	53300	3402612	48000	3402570	22600	3402612	17000	100	3402570
Total Manganese (Mn)	mg/kg	292	3402570	259	3402612	561	3402570	433	3402612	333	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3402570	<0.05	3402612	<0.05	3402570	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.4	3402570	0.3	3402612	1.3	3402570	7.4	3402612	4.9	0.1	3402570
Total Nickel (Ni)	mg/kg	10.4	3402570	8.5	3402612	32.1	3402570	25.5	3402612	20.9	0.8	3402570
Total Phosphorus (P)	mg/kg	539	3402570	636	3402612	1010	3402570	1820	3402612	798	10	3402570
Total Potassium (K)	mg/kg	1400	3402570	1890	3402612	1680	3402570	2570	3402612	2590	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3402570	<0.5	3402612	<0.5	3402570	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3402570	<0.05	3402612	0.09	3402570	<0.05	3402612	0.09	0.05	3402570
Total Sodium (Na)	mg/kg	215	3402570	333	3402612	231	3402570	1220	3402612	712	100	3402570
Total Strontium (Sr)	mg/kg	25.1	3402570	29.8	3402612	75.7	3402570	58.0	3402612	35.1	0.1	3402570
Total Thallium (Tl)	mg/kg	0.07	3402570	0.08	3402612	0.09	3402570	0.09	3402612	0.09	0.05	3402570
Total Tin (Sn)	mg/kg	0.2	3402570	0.1	3402612	0.4	3402570	0.4	3402612	0.5	0.1	3402570
Total Titanium (Ti)	mg/kg	285	3402570	135	3402612	110	3402570	75	3402612	84	1	3402570
Total Vanadium (V)	mg/kg	25	3402570	12	3402612	22	3402570	69	3402612	22	2	3402570
Total Zinc (Zn)	mg/kg	16	3402570	10	3402612	110	3402570	24	3402612	16	1	3402570
Total Zirconium (Zr)	mg/kg	2.5	3402570	2.0	3402612	4.5	3402570	4.3	3402612	6.1	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57110	Q57111		Q57114		Q57115		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**QC Batch**	**GR2**	**RDL**	**QC Batch**
Misc. Inorganics									
Soluble (2:1) pH	pH Units	8.14	8.32	3410846	8.10	3412134	7.90	0.01	3412134
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	2860	3180	3402570	3900	3402570	4980	100	3404758
Total Antimony (Sb)	mg/kg	0.2	0.1	3402570	0.2	3402570	0.1	0.1	3404758
Total Arsenic (As)	mg/kg	5.2	8.7	3402570	9.1	3402570	2.0	0.2	3404758
Total Barium (Ba)	mg/kg	41.5	17.1	3402570	25.7	3402570	24.5	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.7	3402570	0.7	3402570	0.3	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	0.1	3402570	0.1	3402570	0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	1.71	0.05	3404758
Total Calcium (Ca)	mg/kg	53800	111000	3402570	72900	3402570	72800	100	3404758
Total Chromium (Cr)	mg/kg	13	13	3402570	17	3402570	22	1	3404758
Total Cobalt (Co)	mg/kg	12.1	6.0	3402570	16.0	3402570	5.0	0.3	3404758
Total Copper (Cu)	mg/kg	18.2	11.3	3402570	22.4	3402570	102	0.5	3404758
Total Iron (Fe)	mg/kg	22200	22200	3402570	24300	3402570	11900	100	3404758
Total Lead (Pb)	mg/kg	22.9	15.2	3402570	25.6	3402570	20.8	0.1	3404758
Total Magnesium (Mg)	mg/kg	29600	63200	3402570	40800	3402570	40800	100	3404758
Total Manganese (Mn)	mg/kg	490	807	3402570	639	3402570	495	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	3.7	2.7	3402570	4.7	3402570	0.9	0.1	3404758
Total Nickel (Ni)	mg/kg	23.4	13.0	3402570	24.0	3402570	29.7	0.8	3404758
Total Phosphorus (P)	mg/kg	659	1600	3402570	1030	3402570	901	10	3404758
Total Potassium (K)	mg/kg	2080	2000	3402570	2480	3402570	1660	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402570	<0.5	3402570	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	0.11	0.05	3402570	0.07	3402570	0.07	0.05	3404758
Total Sodium (Na)	mg/kg	476	1300	3402570	1730	3402570	216	100	3404758
Total Strontium (Sr)	mg/kg	31.1	57.2	3402570	54.6	3402570	79.4	0.1	3404758
Total Thallium (Tl)	mg/kg	0.21	0.05	3402570	0.10	3402570	0.10	0.05	3404758
Total Tin (Sn)	mg/kg	0.4	0.3	3402570	0.5	3402570	0.5	0.1	3404758
Total Titanium (Ti)	mg/kg	61	80	3402570	110	3402570	147	1	3404758
Total Vanadium (V)	mg/kg	23	30	3402570	34	3402570	20	2	3404758
Total Zinc (Zn)	mg/kg	12	10	3402570	18	3402570	97	1	3404758
Total Zirconium (Zr)	mg/kg	5.7	6.2	3402570	4.9	3402570	3.1	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56933		Q56940	Q56941		Q56950	Q56950	Q56980		
Sampling Date		2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/30		
	Units	**3-09-1-1**	**QC Batch**	**3-09-4M-3**	**3-09-DUP-1**	**QC Batch**	**1-09-2M-1**	**1-09-2M-1 Lab-Dup**	**1-09-6M-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	<0.01	3393461	0.40	<0.01	3393461	<0.01		<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02	3393461	<0.02	<0.02	3393461	<0.02		<0.02	0.02	3393461
Total PAH	mg/kg	<0.02	3393461	0.40	<0.02	3393461	<0.02		<0.02	0.02	3393461
Naphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
2-Methylnaphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthylene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluorene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Phenanthrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Chrysene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(b&j)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(k)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Dibenz(a,h)anthracene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Benzo(g,h,i)perylene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	88	3396608	95	95	3397567	91	88	90		3396608
D12-BENZO(A)PYRENE (sur.)	%	84	3396608	91	89	3397567	86	85	85		3396608
D8-ACENAPHTHYLENE (sur.)	%	84	3396608	90	91	3397567	86	84	86		3396608
TERPHENYL-D14 (sur.)	%	87	3396608	96	94	3397567	91	88	88		3396608

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56984			Q56986		Q56987			Q57029	Q57032		
Sampling Date		2009/08/30			2009/08/30		2009/08/30			2009/08/30	2009/08/30		
	Units	**4A-09-3M-1**	**RDL**	**QC Batch**	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**RDL**	**QC Batch**
Polycyclic Aromatics													
Low Molecular Weight PAH`s	mg/kg	5.6	0.1	3393461	16	0.1	58	0.4	3393461	<0.01	<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	0.03	0.02	3393461	<0.2	0.2	<0.2	0.2	3393461	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	5.6	0.1	3393461	16	0.2	58	0.4	3393461	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	1.3	0.01	3400175	4.3(1)	0.1	13(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
2-Methylnaphthalene	mg/kg	4.0	0.01	3400175	11(1)	0.1	39(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Acenaphthylene	mg/kg	<0.1(2)	0.1	3400175	<0.1(2)	0.1	<0.4(2)	0.4	3397567	<0.01	<0.01	0.01	3401373
Acenaphthene	mg/kg	<0.03(2)	0.03	3400175	0.2(1)	0.1	0.8(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Fluorene	mg/kg	0.14	0.01	3400175	0.5(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Phenanthrene	mg/kg	0.13	0.01	3400175	0.3(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.3(2)	0.3	3397567	<0.01	<0.01	0.01	3401373
Fluoranthene	mg/kg	0.02	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Pyrene	mg/kg	0.01	0.01	3400175	<0.1(1)	0.1	0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Chrysene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(b&j)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(k)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)pyrene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Dibenz(a,h)anthracene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Benzo(g,h,i)perylene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Surrogate Recovery (%)													
D10-ANTHRACENE (sur.)	%	104		3400175	120		120		3397567	107	101		3401373
D12-BENZO(A)PYRENE (sur.)	%	101		3400175	110		110		3397567	99	94		3401373
D8-ACENAPHTHYLENE (sur.)	%	99		3400175	100		90		3397567	96	91		3401373
TERPHENYL-D14 (sur.)	%	96		3400175	110		100		3397567	94	91		3401373

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.
(2) - RDL raised due to sample matrix interference.

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q57059	Q57059		Q57062	Q57065	Q57103	Q57104	Q57111		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP1-1 Lab-Dup**	**QC Batch**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP2-2**	**2-09-TP3-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	0.01		3393461	<0.01	0.61	<0.01	<0.01	0.02	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02		3393461	<0.02	2.1	<0.02	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	<0.02		3393461	<0.02	2.7	<0.02	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	0.01	<0.01	3399651	<0.01	0.03	<0.01	<0.01	<0.01	0.01	3400184
2-Methylnaphthalene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	0.02	0.01	3400184
Acenaphthylene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3400184
Acenaphthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Fluorene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Phenanthrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.60	<0.01	<0.01	<0.01	0.01	3400184
Pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.18	<0.01	<0.01	<0.01	0.01	3400184
Chrysene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Benzo(b&j)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.27	<0.01	<0.01	<0.01	0.01	3400184
Benzo(k)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Dibenz(a,h)anthracene	mg/kg	<0.02	<0.02	3399651	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	3400184
Benzo(g,h,i)perylene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	95	95	3399651	108	107	112	115	114		3400184
D12-BENZO(A)PYRENE (sur.)	%	92	92	3399651	103	102	107	109	108		3400184
D8-ACENAPHTHYLENE (sur.)	%	90	90	3399651	98	98	99	102	102		3400184
TERPHENYL-D14 (sur.)	%	92	94	3399651	95	95	100	101	101		3400184

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10		44	<10	<10	<10	<10	10	4700	300	3393756
Chlorobenzenes												
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	1.2	0.006	<0.005	<0.005	<0.005	0.005	1.0	0.005	3399824
Ethylbenzene	mg/kg	<0.01	<0.01	0.08	<0.01	<0.01	<0.01	<0.01	0.01	5.6	0.01	3399824
m & p-Xylene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	0.1	22	0.1	3399824
o-Xylene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	7.0	0.1	3399824
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Toluene	mg/kg	<0.03	<0.03	0.28	<0.03	<0.03	<0.03	<0.03	0.03	15	0.03	3399824
Xylenes (Total)	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	<0.1	0.1	29	0.1	3399824

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Volatiles												
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<2(1)	2	3399824
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.3	3399824
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
cis-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	3399824
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	0.2	3399824
Vinyl chloride	mg/kg	<0.08(2)	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	<0.08	0.08	3399824
Volatile Hydrocarbons												
F1 (C06-C10)	mg/kg	<10	<10	47	<10	<10	<10	<10	10	4800(3)	300	3399909

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	84	85	92	86	84	85	85		72		3399824
D10-ETHYLBENZENE (sur.)	%	107	109	112	106	109	106	108		89		3399824
D4-1,2-DICHLOROETHANE (sur.)	%	82	83	80	82	82	81	82		80		3399824
D8-TOLUENE (sur.)	%	99	100	103	100	99	100	99		101		3399824

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters											
F1 (C06-C10) - BTEX	mg/kg	4400	300	4300	300	3393756	<10	<10		10	3393756
Chlorobenzenes											
1,2-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics											
Benzene	mg/kg	2.9	0.005	4.6	0.005	3399824	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	6.8	0.01	6.5	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	100(1)	0.5	65(1)	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	34(1)	0.5	11	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	37(1)	0.1	1.5	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	140	0.5	76	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Volatiles											
1,1,1,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<9(1)	9	<6(1)	6	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	0.3	<0.3	0.3	3399824	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05(2)	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	0.01	<0.01	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	0.2	<0.2	0.2	3399824	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	0.08	<0.08	0.08	3399824	<0.08	<0.08(2)	<0.08	0.08	3399837
Volatile Hydrocarbons											
F1 (C06-C10)	mg/kg	4600(3)	300	4400(3)	300	3399909	<10	<10	<10	10	3399912

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Surrogate Recovery (%)											
4-BROMOFLUOROBENZENE (sur.)	%	74		80		3399824	86	87	86		3399837
D10-ETHYLBENZENE (sur.)	%	89		89		3399824	109	107	104		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	81		84		3399824	80	81	81		3399837
D8-TOLUENE (sur.)	%	106		103		3399824	101	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	96	86	86	87	86	85		3399837
D10-ETHYLBENZENE (sur.)	%	99	106	107	94	109	106		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	102	81	79	81	79	79		3399837
D8-TOLUENE (sur.)	%	99	100	100	100	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	85	86	84	85	85	90		3399837
D10-ETHYLBENZENE (sur.)	%	104	105	106	101	103	91		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	80	81	80	79	79	83		3399837
D8-TOLUENE (sur.)	%	100	100	99	99	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Package 1	2.0°C
Package 2	5.0°C
Package 3	9.0°C
Package 4	9.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3395524	Moisture	2009/09/05					<0.3	%	2.6	20		
3395624	Moisture	2009/09/05					<0.3	%	0	20		
3395627	Moisture	2009/09/05					<0.3	%	9.2	20		
3396608	D10-ANTHRACENE (sur.)	2009/09/05			86	30 - 130	101	%				
3396608	D12-BENZO(A)PYRENE (sur.)	2009/09/05			84	30 - 130	94	%				
3396608	D8-ACENAPHTHYLENE (sur.)	2009/09/05			82	30 - 130	96	%				
3396608	TERPHENYL-D14 (sur.)	2009/09/05			86	30 - 130	100	%				
3396608	Naphthalene	2009/09/05	87	40 - 130	100	40 - 130	<0.01	mg/kg	NC	50		
3396608	2-Methylnaphthalene	2009/09/05	88	40 - 130	101	40 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthylene	2009/09/05	80	40 - 130	90	40 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthene	2009/09/05	86	40 - 130	98	40 - 130	<0.01	mg/kg	NC	50		
3396608	Fluorene	2009/09/05	81	40 - 130	96	40 - 130	<0.01	mg/kg	NC	50		
3396608	Phenanthrene	2009/09/05	88	40 - 130	101	40 - 130	<0.01	mg/kg	NC	50		
3396608	Anthracene	2009/09/05	83	40 - 130	96	40 - 130	<0.01	mg/kg	NC	50		
3396608	Fluoranthene	2009/09/05	83	40 - 130	100	40 - 130	<0.01	mg/kg	NC	50		
3396608	Pyrene	2009/09/05	85	40 - 130	97	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)anthracene	2009/09/05	81	40 - 130	91	40 - 130	<0.01	mg/kg	NC	50		
3396608	Chrysene	2009/09/05	81	40 - 130	92	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(b&j)fluoranthene	2009/09/05	85	40 - 130	101	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(k)fluoranthene	2009/09/05	82	40 - 130	95	40 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)pyrene	2009/09/05	86	40 - 130	97	40 - 130	<0.01	mg/kg	NC	50		
3396608	Indeno(1,2,3-cd)pyrene	2009/09/05	75	40 - 130	78	40 - 130	<0.02	mg/kg	NC	50		
3396608	Dibenz(a,h)anthracene	2009/09/05	72	40 - 130	76	40 - 130	<0.02	mg/kg	NC	50		
3396608	Benzo(g,h,i)perylene	2009/09/05	75	40 - 130	82	40 - 130	<0.02	mg/kg	NC	50		
3397567	D10-ANTHRACENE (sur.)	2009/09/05			91	30 - 130	101	%				
3397567	D12-BENZO(A)PYRENE (sur.)	2009/09/05			87	30 - 130	93	%				
3397567	D8-ACENAPHTHYLENE (sur.)	2009/09/05			89	30 - 130	96	%				
3397567	TERPHENYL-D14 (sur.)	2009/09/05			90	30 - 130	97	%				
3397567	Naphthalene	2009/09/05			106	40 - 130	<0.01	mg/kg	3.9	50		
3397567	2-Methylnaphthalene	2009/09/05			108	40 - 130	<0.01	mg/kg	2.8	50		
3397567	Acenaphthylene	2009/09/05			101	40 - 130	<0.01	mg/kg	3.0	50		
3397567	Acenaphthene	2009/09/05			102	40 - 130	<0.01	mg/kg	9.6	50		
3397567	Fluorene	2009/09/05			106	40 - 130	<0.01	mg/kg	9.0	50		
3397567	Phenanthrene	2009/09/05			110	40 - 130	<0.01	mg/kg	5.6	50		
3397567	Anthracene	2009/09/05			110	40 - 130	<0.01	mg/kg	7.4	50		
3397567	Fluoranthene	2009/09/05			109	40 - 130	<0.01	mg/kg	0.2	50		
3397567	Pyrene	2009/09/05			105	40 - 130	<0.01	mg/kg	1.4	50		
3397567	Benzo(a)anthracene	2009/09/05			102	40 - 130	<0.01	mg/kg	8.3	50		
3397567	Chrysene	2009/09/05			104	40 - 130	<0.01	mg/kg	5.4	50		
3397567	Benzo(b&j)fluoranthene	2009/09/05			103	40 - 130	<0.01	mg/kg	4.3	50		

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3397567	Benzo(k)fluoranthene	2009/09/05			108	40 - 130	<0.01	mg/kg	3.5	50		
3397567	Benzo(a)pyrene	2009/09/05			107	40 - 130	<0.01	mg/kg	1.8	50		
3397567	Indeno(1,2,3-cd)pyrene	2009/09/05			101	40 - 130	<0.02	mg/kg	6.1	50		
3397567	Dibenz(a,h)anthracene	2009/09/05			102	40 - 130	<0.02	mg/kg	5.1	50		
3397567	Benzo(g,h,i)perylene	2009/09/05			103	40 - 130	<0.02	mg/kg	5.6	50		
3398109	O-TERPHENYL (sur.)	2009/09/08			75	50 - 130	82	%				
3398109	F2 (C10-C16 Hydrocarbons)	2009/09/08			104	80 - 120	<10	mg/kg	NC	40		
3398109	F3 (C16-C34 Hydrocarbons)	2009/09/08			110	80 - 120	<10	mg/kg	3.3	40		
3398109	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.9	40		
3398109	Reached Baseline at C50	2009/09/08					YES, RDL=N/A	mg/kg	NC	50		
3398448	Benzene	2009/09/05			95	80 - 120	<0.005	mg/kg	NC	40		
3398448	Ethylbenzene	2009/09/05			108	80 - 120	<0.01	mg/kg	NC	40		
3398448	m & p-Xylene	2009/09/05			108	80 - 120	<0.1	mg/kg	NC	40		
3398448	o-Xylene	2009/09/05			110	80 - 120	<0.1	mg/kg	NC	40		
3398448	Toluene	2009/09/05			98	80 - 120	<0.05	mg/kg	NC	40		
3398448	4-BROMOFLUOROBENZENE (sur.)	2009/09/04			100	70 - 130	98	%			99	70 - 130
3398448	D10-ETHYLBENZENE (sur.)	2009/09/04			91	50 - 130	95	%			91	50 - 130
3398448	D4-1,2-DICHLOROETHANE (sur.)	2009/09/04			94	70 - 130	101	%			96	70 - 130
3398448	D8-TOLUENE (sur.)	2009/09/04			102	70 - 130	102	%			104	70 - 130
3398448	(C6-C10)	2009/09/05					<10	mg/kg	NC	40	83	80 - 120
3398448	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Xylenes (Total)	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Benzene	2009/09/05	97	60 - 140	97	80 - 120	<0.005	mg/kg	NC	40		
3398449	Ethylbenzene	2009/09/05	102	60 - 140	108	80 - 120	<0.01	mg/kg	3.5	40		
3398449	m & p-Xylene	2009/09/05	94	60 - 140	106	80 - 120	<0.1	mg/kg	5.2	40		
3398449	o-Xylene	2009/09/05	98	60 - 140	107	80 - 120	<0.1	mg/kg	9.7	40		
3398449	Toluene	2009/09/05	95	60 - 140	96	80 - 120	<0.05	mg/kg	NC	40		
3398449	4-BROMOFLUOROBENZENE (sur.)	2009/09/05			102	70 - 130	98	%			102	70 - 130
3398449	D10-ETHYLBENZENE (sur.)	2009/09/05			96	50 - 130	107	%			96	50 - 130
3398449	D4-1,2-DICHLOROETHANE (sur.)	2009/09/05			99	70 - 130	97	%			99	70 - 130
3398449	D8-TOLUENE (sur.)	2009/09/05			102	70 - 130	102	%			102	70 - 130
3398449	(C6-C10)	2009/09/05					<10	mg/kg	9.7	40	103	80 - 120
3398449	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Xylenes (Total)	2009/09/05					<0.1	mg/kg	6.6	40		
3398449	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398902	<200 mesh (>.075 mm)	2009/09/08							0.7	30		
3398902	>200 mesh (<.075 mm)	2009/09/08							1.2	30		
3399617	Benzene	2009/09/06	95	60 - 140	87	80 - 120	<0.005	mg/kg	NC	40		
3399617	Ethylbenzene	2009/09/06	100	60 - 140	95	80 - 120	<0.01	mg/kg	NC	40		

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399617	m & p-Xylene	2009/09/06	99	60 - 140	95	80 - 120	<0.1	mg/kg	NC	40		
3399617	o-Xylene	2009/09/06	103	60 - 140	98	80 - 120	<0.1	mg/kg	NC	40		
3399617	Toluene	2009/09/06	93	60 - 140	87	80 - 120	<0.05	mg/kg	NC	40		
3399617	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			103	70 - 130	99	%			102	70 - 130
3399617	D10-ETHYLBENZENE (sur.)	2009/09/06			92	50 - 130	99	%			91	50 - 130
3399617	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			102	70 - 130	98	%			104	70 - 130
3399617	D8-TOLUENE (sur.)	2009/09/06			99	70 - 130	100	%			99	70 - 130
3399617	(C6-C10)	2009/09/06					<10	mg/kg	NC	40	83	80 - 120
3399617	Styrene	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	40		
3399651	D10-ANTHRACENE (sur.)	2009/09/06			96	30 - 130	99	%				
3399651	D12-BENZO(A)PYRENE (sur.)	2009/09/06			93	30 - 130	93	%				
3399651	D8-ACENAPHTHYLENE (sur.)	2009/09/06			91	30 - 130	94	%				
3399651	TERPHENYL-D14 (sur.)	2009/09/06			91	30 - 130	96	%				
3399651	Naphthalene	2009/09/06	91	40 - 130	86	40 - 130	<0.01	mg/kg	NC	50		
3399651	2-Methylnaphthalene	2009/09/06	93	40 - 130	86	40 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthylene	2009/09/06	84	40 - 130	78	40 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthene	2009/09/06	89	40 - 130	84	40 - 130	<0.01	mg/kg	NC	50		
3399651	Fluorene	2009/09/06	88	40 - 130	82	40 - 130	<0.01	mg/kg	NC	50		
3399651	Phenanthrene	2009/09/06	91	40 - 130	88	40 - 130	<0.01	mg/kg	NC	50		
3399651	Anthracene	2009/09/06	88	40 - 130	83	40 - 130	<0.01	mg/kg	NC	50		
3399651	Fluoranthene	2009/09/06	90	40 - 130	84	40 - 130	<0.01	mg/kg	NC	50		
3399651	Pyrene	2009/09/06	86	40 - 130	82	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)anthracene	2009/09/06	86	40 - 130	78	40 - 130	<0.01	mg/kg	NC	50		
3399651	Chrysene	2009/09/06	83	40 - 130	80	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(b&j)fluoranthene	2009/09/06	90	40 - 130	80	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(k)fluoranthene	2009/09/06	92	40 - 130	88	40 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)pyrene	2009/09/06	93	40 - 130	86	40 - 130	<0.01	mg/kg	NC	50		
3399651	Indeno(1,2,3-cd)pyrene	2009/09/06	90	40 - 130	82	40 - 130	<0.02	mg/kg	NC	50		
3399651	Dibenz(a,h)anthracene	2009/09/06	91	40 - 130	83	40 - 130	<0.02	mg/kg	NC	50		
3399651	Benzo(g,h,i)perylene	2009/09/06	88	40 - 130	81	40 - 130	<0.02	mg/kg	NC	50		
3399824	1,2-dichlorobenzene	2009/09/07	104	60 - 140	101	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,3-dichlorobenzene	2009/09/07	108	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,4-dichlorobenzene	2009/09/07	99	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorobenzene	2009/09/07	102	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	Benzene	2009/09/07	102	60 - 140	95	60 - 140	<0.005	mg/kg	NC	50		
3399824	Ethylbenzene	2009/09/07	111	60 - 140	103	60 - 140	<0.01	mg/kg	NC	50		
3399824	m & p-Xylene	2009/09/07	115	60 - 140	106	60 - 140	<0.1	mg/kg	NC	50		
3399824	o-Xylene	2009/09/07	105	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399824	Styrene	2009/09/07	100	60 - 140	94	60 - 140	<0.1	mg/kg	NC	50		
3399824	Toluene	2009/09/07	99	60 - 140	91	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1,2-tetrachloroethane	2009/09/07	103	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1-trichloroethane	2009/09/07	113	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2,2-tetrachloroethane	2009/09/07	80	60 - 140	78	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2-trichloroethane	2009/09/07	87	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethane	2009/09/07	106	60 - 140	98	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethene	2009/09/07	117	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloroethane	2009/09/07	89	60 - 140	82	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloropropane	2009/09/07	101	60 - 140	94	60 - 140	<0.03	mg/kg	NC	50		
3399824	4-BROMOFLUOROBENZENE (sur.)	2009/09/07			101	70 - 130	86	%				
3399824	Bromodichloromethane	2009/09/07	96	60 - 140	88	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromoform	2009/09/07	72	60 - 140	68	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromomethane	2009/09/07	69	40 - 150	71	40 - 150	<0.3	mg/kg	NC	50		
3399824	Carbon tetrachloride	2009/09/07	118	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorodibromomethane	2009/09/07	92	60 - 140	86	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloroethane	2009/09/07	52	40 - 150	107	40 - 150	<0.1	mg/kg	NC	50		
3399824	Chloroform	2009/09/07	103	60 - 140	95	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloromethane	2009/09/07	99	40 - 150	94	40 - 150	<0.1	mg/kg	NC	50		
3399824	cis-1,2-dichloroethene	2009/09/07	104	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	cis-1,3-dichloropropene	2009/09/07	55 (1)	60 - 140	57 (2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	D10-ETHYLBENZENE (sur.)	2009/09/07			97	50 - 130	105	%				
3399824	D4-1,2-DICHLOROETHANE (sur.)	2009/09/07			85	70 - 130	82	%				
3399824	D8-TOLUENE (sur.)	2009/09/07			103	70 - 130	100	%				
3399824	Dibromoethane	2009/09/07	85	60 - 140	79	60 - 140	<0.03	mg/kg	NC	50		
3399824	Dichloromethane	2009/09/07	87	60 - 140	80	60 - 140	<0.1	mg/kg	NC	50		
3399824	Tetrachloroethene	2009/09/07	115	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,2-dichloroethene	2009/09/07	112	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,3-dichloropropene	2009/09/07	41 (1)	60 - 140	44 (2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	Trichloroethene	2009/09/07	114	60 - 140	105	60 - 140	<0.01	mg/kg	NC	50		
3399824	Trichlorofluoromethane	2009/09/07	116	40 - 150	106	40 - 150	<0.2	mg/kg	NC	50		
3399824	Vinyl chloride	2009/09/07	24 (1)	40 - 150	24 (2)	40 - 150	<0.08	mg/kg	NC	50		
3399824	Xylenes (Total)	2009/09/07					<0.1	mg/kg	NC	50		
3399824	Methyl-tert-butylether(MTBE)	2009/09/07					<0.1	mg/kg	NC	50		
3399837	1,2-dichlorobenzene	2009/09/06	106	60 - 140	102	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,3-dichlorobenzene	2009/09/06	108	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,4-dichlorobenzene	2009/09/06	99	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorobenzene	2009/09/06	102	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Benzene	2009/09/06	102	60 - 140	99	60 - 140	<0.005	mg/kg	NC	50		
3399837	Ethylbenzene	2009/09/06	111	60 - 140	107	60 - 140	<0.01	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399837	m & p-Xylene	2009/09/06	116	60 - 140	112	60 - 140	<0.1	mg/kg	NC	50		
3399837	o-Xylene	2009/09/06	107	60 - 140	103	60 - 140	<0.1	mg/kg	NC	50		
3399837	Styrene	2009/09/06	103	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		
3399837	Toluene	2009/09/06	98	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1,2-tetrachloroethane	2009/09/06	104	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1-trichloroethane	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2,2-tetrachloroethane	2009/09/06	81	60 - 140	81	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2-trichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethane	2009/09/06	106	60 - 140	103	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethene	2009/09/06	115	60 - 140	109	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloropropane	2009/09/06	101	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			99	70 - 130	84	%				
3399837	Bromodichloromethane	2009/09/06	96	60 - 140	92	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromoform	2009/09/06	73	60 - 140	70	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromomethane	2009/09/06	72	40 - 150	66	40 - 150	<0.3	mg/kg	NC	50		
3399837	Carbon tetrachloride	2009/09/06	116	60 - 140	111	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorodibromomethane	2009/09/06	93	60 - 140	89	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloroethane	2009/09/06	110	40 - 150	48	40 - 150	<0.1	mg/kg	NC	50		
3399837	Chloroform	2009/09/06	102	60 - 140	99	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloromethane	2009/09/06	87	40 - 150	88	40 - 150	<0.1	mg/kg	NC	50		
3399837	cis-1,2-dichloroethene	2009/09/06	103	60 - 140	100	60 - 140	<0.03	mg/kg	NC	50		
3399837	cis-1,3-dichloropropene	2009/09/06	69	60 - 140	67	60 - 140	<0.05	mg/kg	NC	50		
3399837	D10-ETHYLBENZENE (sur.)	2009/09/06			99	50 - 130	106	%				
3399837	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			84	70 - 130	79	%				
3399837	D8-TOLUENE (sur.)	2009/09/06			102	70 - 130	100	%				
3399837	Dibromoethane	2009/09/06	85	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399837	Dichloromethane	2009/09/06	86	60 - 140	84	60 - 140	<0.1	mg/kg	NC	50		
3399837	Tetrachloroethene	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,2-dichloroethene	2009/09/06	112	60 - 140	108	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,3-dichloropropene	2009/09/06	53(1)	60 - 140	52(2)	60 - 140	<0.05	mg/kg	NC	50		
3399837	Trichloroethene	2009/09/06	113	60 - 140	109	60 - 140	<0.01	mg/kg	NC	50		
3399837	Trichlorofluoromethane	2009/09/06	108	40 - 150	105	40 - 150	<0.2	mg/kg	NC	50		
3399837	Vinyl chloride	2009/09/06	22(1)	40 - 150	20(2)	40 - 150	<0.08	mg/kg	NC	50		
3399837	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	50		
3399837	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	50		
3399909	F1 (C06-C10)	2009/09/07					<10	mg/kg	NC	50	87	80 - 120
3399912	F1 (C06-C10)	2009/09/06					<10	mg/kg	NC	50	97	80 - 120
3400091	O-TERPHENYL (sur.)	2009/09/08			96	50 - 130	101	%				
3400091	F2 (C10-C16 Hydrocarbons)	2009/09/08			98	80 - 120	<10	mg/kg	NC	40		

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400091	F3 (C16-C34 Hydrocarbons)	2009/09/08			105	80 - 120	<10	mg/kg	32.3	40		
3400091	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.3	40		
3400091	Reached Baseline at C50	2009/09/08			YES	N/A	YES, RDL=N/A	mg/kg	NC	50		
3400175	D10-ANTHRACENE (sur.)	2009/09/08			92	30 - 130	118	%				
3400175	D12-BENZO(A)PYRENE (sur.)	2009/09/08			88	30 - 130	111	%				
3400175	D8-ACENAPHTHYLENE (sur.)	2009/09/08			87	30 - 130	107	%				
3400175	TERPHENYL-D14 (sur.)	2009/09/08			86	30 - 130	108	%				
3400175	Naphthalene	2009/09/08			107	40 - 130	<0.01	mg/kg	NC	50		
3400175	2-Methylnaphthalene	2009/09/08			108	40 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthylene	2009/09/08			94	40 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthene	2009/09/08			99	40 - 130	<0.01	mg/kg	NC	50		
3400175	Fluorene	2009/09/08			96	40 - 130	<0.01	mg/kg	NC	50		
3400175	Phenanthrene	2009/09/08			110	40 - 130	<0.01	mg/kg	NC	50		
3400175	Anthracene	2009/09/08			106	40 - 130	<0.01	mg/kg	NC	50		
3400175	Fluoranthene	2009/09/08			106	40 - 130	<0.01	mg/kg	NC	50		
3400175	Pyrene	2009/09/08			100	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)anthracene	2009/09/08			101	40 - 130	<0.01	mg/kg	NC	50		
3400175	Chrysene	2009/09/08			100	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(b&j)fluoranthene	2009/09/08			106	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(k)fluoranthene	2009/09/08			108	40 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)pyrene	2009/09/08			105	40 - 130	<0.01	mg/kg	NC	50		
3400175	Indeno(1,2,3-cd)pyrene	2009/09/08			93	40 - 130	<0.02	mg/kg	NC	50		
3400175	Dibenz(a,h)anthracene	2009/09/08			93	40 - 130	<0.02	mg/kg	NC	50		
3400175	Benzo(g,h,i)perylene	2009/09/08			90	40 - 130	<0.02	mg/kg	NC	50		
3400184	D10-ANTHRACENE (sur.)	2009/09/09			92	30 - 130	115	%				
3400184	D12-BENZO(A)PYRENE (sur.)	2009/09/09			93	30 - 130	109	%				
3400184	D8-ACENAPHTHYLENE (sur.)	2009/09/09			92	30 - 130	103	%				
3400184	TERPHENYL-D14 (sur.)	2009/09/09			91	30 - 130	104	%				
3400184	Naphthalene	2009/09/09			101	40 - 130	<0.01	mg/kg	22.0	50		
3400184	2-Methylnaphthalene	2009/09/09			103	40 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthylene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthene	2009/09/09			97	40 - 130	<0.01	mg/kg	NC	50		
3400184	Fluorene	2009/09/09			100	40 - 130	<0.01	mg/kg	NC	50		
3400184	Phenanthrene	2009/09/09			99	40 - 130	<0.01	mg/kg	NC	50		
3400184	Anthracene	2009/09/09			98	40 - 130	<0.01	mg/kg	NC	50		
3400184	Fluoranthene	2009/09/09			97	40 - 130	<0.01	mg/kg	NC	50		
3400184	Pyrene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)anthracene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3400184	Chrysene	2009/09/09			92	40 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(b&j)fluoranthene	2009/09/09			94	40 - 130	<0.01	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400184	Benzo(k)fluoranthene	2009/09/09			100	40 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)pyrene	2009/09/09			95	40 - 130	<0.01	mg/kg	NC	50		
3400184	Indeno(1,2,3-cd)pyrene	2009/09/09			97	40 - 130	<0.02	mg/kg	NC	50		
3400184	Dibenz(a,h)anthracene	2009/09/09			94	40 - 130	<0.02	mg/kg	NC	50		
3400184	Benzo(g,h,i)perylene	2009/09/09			97	40 - 130	<0.02	mg/kg	NC	50		
3401373	D10-ANTHRACENE (sur.)	2009/09/09			96	30 - 130	116	%				
3401373	D12-BENZO(A)PYRENE (sur.)	2009/09/09			92	30 - 130	106	%				
3401373	D8-ACENAPHTHYLENE (sur.)	2009/09/09			95	30 - 130	103	%				
3401373	TERPHENYL-D14 (sur.)	2009/09/09			92	30 - 130	102	%				
3401373	Naphthalene	2009/09/09			94	40 - 130	<0.01	mg/kg	NC	50		
3401373	2-Methylnaphthalene	2009/09/09			97	40 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthylene	2009/09/09			88	40 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthene	2009/09/09			96	40 - 130	<0.01	mg/kg	NC	50		
3401373	Fluorene	2009/09/09			99	40 - 130	<0.01	mg/kg	NC	50		
3401373	Phenanthrene	2009/09/09			101	40 - 130	<0.01	mg/kg	NC	50		
3401373	Anthracene	2009/09/09			89	40 - 130	<0.01	mg/kg	NC	50		
3401373	Fluoranthene	2009/09/09			95	40 - 130	<0.01	mg/kg	NC	50		
3401373	Pyrene	2009/09/09			91	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)anthracene	2009/09/09			90	40 - 130	<0.01	mg/kg	NC	50		
3401373	Chrysene	2009/09/09			89	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(b&j)fluoranthene	2009/09/09			92	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(k)fluoranthene	2009/09/09			93	40 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)pyrene	2009/09/09			94	40 - 130	<0.01	mg/kg	NC	50		
3401373	Indeno(1,2,3-cd)pyrene	2009/09/09			89	40 - 130	<0.02	mg/kg	NC	50		
3401373	Dibenz(a,h)anthracene	2009/09/09			89	40 - 130	<0.02	mg/kg	NC	50		
3401373	Benzo(g,h,i)perylene	2009/09/09			89	40 - 130	<0.02	mg/kg	NC	50		
3401543	Total Arsenic (As)	2009/09/09			100	75 - 125	<0.2	mg/kg	0.6	30	92	70 - 130
3401543	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3401543	Total Cadmium (Cd)	2009/09/09			103	75 - 125	<0.05	mg/kg	0.05	30	83	70 - 130
3401543	Total Chromium (Cr)	2009/09/09			102	75 - 125	<1	mg/kg	3.8	30	98	70 - 130
3401543	Total Cobalt (Co)	2009/09/09			102	75 - 125	<0.3	mg/kg	2.6	30	94	70 - 130
3401543	Total Copper (Cu)	2009/09/09			103	75 - 125	<0.5	mg/kg	0.4	30	94	70 - 130
3401543	Total Lead (Pb)	2009/09/09			100	75 - 125	<0.1	mg/kg	1.9	35	98	70 - 130
3401543	Total Mercury (Hg)	2009/09/09			107	75 - 125	<0.05	mg/kg	NC	35		
3401543	Total Nickel (Ni)	2009/09/09			104	75 - 125	<0.8	mg/kg	1.2	30	94	70 - 130
3401543	Total Selenium (Se)	2009/09/09			107	75 - 125	<0.5	mg/kg	NC	30		
3401543	Total Vanadium (V)	2009/09/09			122	75 - 125	2, RDL=2	mg/kg	0.9	30	124	70 - 130
3401543	Total Zinc (Zn)	2009/09/09			108	75 - 125	<1	mg/kg	1.4	30	97	70 - 130
3401543	Total Aluminum (Al)	2009/09/09					<100	mg/kg	1	35	107	70 - 130
3401543	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	1.4	30	100	70 - 130

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401543	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	1	35	111	70 - 130
3401543	Total Calcium (Ca)	2009/09/09					<100	mg/kg	0.5	30	91	70 - 130
3401543	Total Iron (Fe)	2009/09/09					<100	mg/kg	2.1	30	102	70 - 130
3401543	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.1	30	99	70 - 130
3401543	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	7.2	30	100	70 - 130
3401543	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	2.3	35	91	70 - 130
3401543	Total Phosphorus (P)	2009/09/09					<10	mg/kg	5.1	30	101	70 - 130
3401543	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	1.5	35	95	70 - 130
3401543	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	1.5	35	102	70 - 130
3401543	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	90	70 - 130
3401543	Total Titanium (Ti)	2009/09/09					<1	mg/kg	2.2	35	120	70 - 130
3401543	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	8.9	30		
3401543	Total Potassium (K)	2009/09/09					<100	mg/kg	4.8	35		
3401543	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401543	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	3.9	35		
3401543	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	17.3	30		
3401600	Total Arsenic (As)	2009/09/09	101	75 - 125	97	75 - 125	<0.2	mg/kg	2.3	30	83	70 - 130
3401600	Total Beryllium (Be)	2009/09/09	106	75 - 125	97	75 - 125	<0.1	mg/kg	NC	30		
3401600	Total Cadmium (Cd)	2009/09/09	106	75 - 125	98	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3401600	Total Chromium (Cr)	2009/09/09	109	75 - 125	103	75 - 125	<1	mg/kg	12.0	30	97	70 - 130
3401600	Total Cobalt (Co)	2009/09/09	104	75 - 125	103	75 - 125	<0.3	mg/kg	8.5	30	88	70 - 130
3401600	Total Copper (Cu)	2009/09/09	104	75 - 125	103	75 - 125	<0.5	mg/kg	11.1	30	89	70 - 130
3401600	Total Lead (Pb)	2009/09/09	103	75 - 125	100	75 - 125	<0.1	mg/kg	8.6	35	91	70 - 130
3401600	Total Mercury (Hg)	2009/09/09	107	75 - 125	106	75 - 125	<0.05	mg/kg	NC	35		
3401600	Total Nickel (Ni)	2009/09/09	102	75 - 125	101	75 - 125	<0.8	mg/kg	9.7	30	89	70 - 130
3401600	Total Selenium (Se)	2009/09/09	111	75 - 125	108	75 - 125	<0.5	mg/kg	NC	30		
3401600	Total Vanadium (V)	2009/09/09	NC	75 - 125	122	75 - 125	<2	mg/kg	10.1	30	119	70 - 130
3401600	Total Zinc (Zn)	2009/09/09	105	75 - 125	108	75 - 125	<1	mg/kg	12.8	30	92	70 - 130
3401600	Total Aluminum (Al)	2009/09/09					<100	mg/kg	12.0	35	103	70 - 130
3401600	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	83	70 - 130
3401600	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	8.7	35	103	70 - 130
3401600	Total Calcium (Ca)	2009/09/09					<100	mg/kg	4.2	30	89	70 - 130
3401600	Total Iron (Fe)	2009/09/09					<100	mg/kg	10.1	30	96	70 - 130
3401600	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.5	30	95	70 - 130
3401600	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	6.2	30	93	70 - 130
3401600	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	NC	35	94	70 - 130
3401600	Total Phosphorus (P)	2009/09/09					<10	mg/kg	2.8	30	94	70 - 130
3401600	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	84	70 - 130
3401600	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	8.0	35	94	70 - 130
3401600	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	78	70 - 130

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401600	Total Titanium (Ti)	2009/09/09					<1	mg/kg	11.0	35	113	70 - 130
3401600	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3401600	Total Potassium (K)	2009/09/09					<100	mg/kg	7.2	35		
3401600	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401600	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3401600	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	11.5	30		
3402570	Total Arsenic (As)	2009/09/10			101	75 - 125	<0.2	mg/kg	3.2	30	90	70 - 130
3402570	Total Beryllium (Be)	2009/09/10			103	75 - 125	<0.1	mg/kg	NC	30		
3402570	Total Cadmium (Cd)	2009/09/10			101	75 - 125	<0.05	mg/kg	2.3	30	78	70 - 130
3402570	Total Chromium (Cr)	2009/09/10			102	75 - 125	<1	mg/kg	1.3	30	88	70 - 130
3402570	Total Cobalt (Co)	2009/09/10			104	75 - 125	<0.3	mg/kg	1.2	30	87	70 - 130
3402570	Total Copper (Cu)	2009/09/10			106	75 - 125	<0.5	mg/kg	1.5	30	88	70 - 130
3402570	Total Lead (Pb)	2009/09/10			101	75 - 125	<0.1	mg/kg	1.3	35	93	70 - 130
3402570	Total Mercury (Hg)	2009/09/10			109	75 - 125	<0.05	mg/kg	NC	35		
3402570	Total Nickel (Ni)	2009/09/10			103	75 - 125	<0.8	mg/kg	0.9	30	86	70 - 130
3402570	Total Selenium (Se)	2009/09/10			108	75 - 125	<0.5	mg/kg	NC	30		
3402570	Total Vanadium (V)	2009/09/10			123	75 - 125	<2	mg/kg	2.3	30	110	70 - 130
3402570	Total Zinc (Zn)	2009/09/10			110	75 - 125	<1	mg/kg	3.4	30	90	70 - 130
3402570	Total Aluminum (Al)	2009/09/10					<100	mg/kg	15.4	35	88	70 - 130
3402570	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	89	70 - 130
3402570	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	2.3	35	106	70 - 130
3402570	Total Calcium (Ca)	2009/09/10					<100	mg/kg	4.6	30	89	70 - 130
3402570	Total Iron (Fe)	2009/09/10					<100	mg/kg	1	30	93	70 - 130
3402570	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.6	30	91	70 - 130
3402570	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	3.6	30	96	70 - 130
3402570	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	6.2	35	74	70 - 130
3402570	Total Phosphorus (P)	2009/09/10					<10	mg/kg	1.7	30	104	70 - 130
3402570	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	88	70 - 130
3402570	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	1.6	35	97	70 - 130
3402570	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	76	70 - 130
3402570	Total Titanium (Ti)	2009/09/10					<1	mg/kg	1.6	35	105	70 - 130
3402570	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402570	Total Potassium (K)	2009/09/10					<100	mg/kg	13.1	35		
3402570	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402570	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402570	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3402612	Total Arsenic (As)	2009/09/10			103	75 - 125	<0.2	mg/kg	0.6	30	86	70 - 130
3402612	Total Beryllium (Be)	2009/09/10			107	75 - 125	<0.1	mg/kg	NC	30		
3402612	Total Cadmium (Cd)	2009/09/10			103	75 - 125	<0.05	mg/kg	NC	30	81	70 - 130
3402612	Total Chromium (Cr)	2009/09/10			106	75 - 125	<1	mg/kg	1.3	30	91	70 - 130

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3402612	Total Cobalt (Co)	2009/09/10			107	75 - 125	<0.3	mg/kg	1.4	30	89	70 - 130
3402612	Total Copper (Cu)	2009/09/10			109	75 - 125	<0.5	mg/kg	4.8	30	88	70 - 130
3402612	Total Lead (Pb)	2009/09/10			106	75 - 125	<0.1	mg/kg	0.8	35	95	70 - 130
3402612	Total Mercury (Hg)	2009/09/10			112	75 - 125	<0.05	mg/kg	NC	35		
3402612	Total Nickel (Ni)	2009/09/10			105	75 - 125	<0.8	mg/kg	2.3	30	88	70 - 130
3402612	Total Selenium (Se)	2009/09/10			114	75 - 125	<0.5	mg/kg	NC	30		
3402612	Total Vanadium (V)	2009/09/10			115	75 - 125	<2	mg/kg	2.0	30	113	70 - 130
3402612	Total Zinc (Zn)	2009/09/10			115	75 - 125	<1	mg/kg	10.2	30	95	70 - 130
3402612	Total Aluminum (Al)	2009/09/10					<100	mg/kg	3.1	35	96	70 - 130
3402612	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	86	70 - 130
3402612	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	1.2	35	107	70 - 130
3402612	Total Calcium (Ca)	2009/09/10					<100	mg/kg	1.6	30	101	70 - 130
3402612	Total Iron (Fe)	2009/09/10					<100	mg/kg	7.4	30	87	70 - 130
3402612	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.2	30	111	70 - 130
3402612	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	7.5	30	99	70 - 130
3402612	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	NC	35	83	70 - 130
3402612	Total Phosphorus (P)	2009/09/10					<10	mg/kg	2.1	30	93	70 - 130
3402612	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	86	70 - 130
3402612	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	9.2	35	100	70 - 130
3402612	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	79	70 - 130
3402612	Total Titanium (Ti)	2009/09/10					<1	mg/kg	4.5	35	108	70 - 130
3402612	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402612	Total Potassium (K)	2009/09/10					<100	mg/kg	5.1	35		
3402612	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402612	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402612	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3404758	Total Arsenic (As)	2009/09/09			98	75 - 125	<0.2	mg/kg	5.0	30	86	70 - 130
3404758	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3404758	Total Cadmium (Cd)	2009/09/09			100	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Chromium (Cr)	2009/09/09			97	75 - 125	<1	mg/kg	0.1	30	92	70 - 130
3404758	Total Cobalt (Co)	2009/09/09			99	75 - 125	<0.3	mg/kg	0.2	30	86	70 - 130
3404758	Total Copper (Cu)	2009/09/09			101	75 - 125	<0.5	mg/kg	1.4	30	86	70 - 130
3404758	Total Lead (Pb)	2009/09/09			97	75 - 125	<0.1	mg/kg	0.3	35	94	70 - 130
3404758	Total Mercury (Hg)	2009/09/09			104	75 - 125	<0.05	mg/kg	NC	35		
3404758	Total Nickel (Ni)	2009/09/09			94	75 - 125	<0.8	mg/kg	1.5	30	87	70 - 130
3404758	Total Selenium (Se)	2009/09/09			106	75 - 125	<0.5	mg/kg	NC	30		
3404758	Total Vanadium (V)	2009/09/09			121	75 - 125	<2	mg/kg	1.7	30	123	70 - 130
3404758	Total Zinc (Zn)	2009/09/09			102	75 - 125	<1	mg/kg	1.9	30	88	70 - 130
3404758	Total Aluminum (Al)	2009/09/09					<100	mg/kg	8.6	35	105	70 - 130
3404758	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	103	70 - 130

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3404758	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	0.04	35	109	70 - 130
3404758	Total Calcium (Ca)	2009/09/09					<100	mg/kg	1.5	30	90	70 - 130
3404758	Total Iron (Fe)	2009/09/09					<100	mg/kg	3.3	30	93	70 - 130
3404758	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	1.9	30	95	70 - 130
3404758	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	0.7	30	95	70 - 130
3404758	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	8.5	35	89	70 - 130
3404758	Total Phosphorus (P)	2009/09/09					<10	mg/kg	3.6	30	91	70 - 130
3404758	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	94	70 - 130
3404758	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	0.04	35	99	70 - 130
3404758	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Titanium (Ti)	2009/09/09					<1	mg/kg	0.2	35	113	70 - 130
3404758	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3404758	Total Potassium (K)	2009/09/09					<100	mg/kg	11.5	35		
3404758	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3404758	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3404758	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	NC	30		
3404986	Extractable (Water) SULFOLANE (sur.)	2009/09/10			100	60 - 140	98	%				
3404986	Extractable (Water) Ethylene Glycol	2009/09/10			106	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Diethylene Glycol	2009/09/10			108	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Triethylene Glycol	2009/09/10			114	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Tetraethylene Glycol	2009/09/10			126	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Propylene Glycol	2009/09/10			97	30 - 130	<10	mg/kg	NC	40		
3405247	O-TERPHENYL (sur.)	2009/09/09			80	50 - 130	88	%				
3405247	F2 (C10-C16 Hydrocarbons)	2009/09/09	99	50 - 130	104	80 - 120	<10	mg/kg	NC	40		
3405247	F3 (C16-C34 Hydrocarbons)	2009/09/09	102	50 - 130	103	80 - 120	<10	mg/kg	NC	40		
3405247	F4 (C34-C50 Hydrocarbons)	2009/09/09	99	50 - 130	100	80 - 120	<10	mg/kg	NC	40		
3405247	Reached Baseline at C50	2009/09/09							NC	50		
3407604	Soluble (2:1) pH	2009/09/11			100	96 - 104			0	20		
3410083	O-TERPHENYL (sur.)	2009/09/11			88	50 - 130	92	%				
3410083	F2 (C10-C16 Hydrocarbons)	2009/09/11	109	50 - 130	99	80 - 120	<10	mg/kg	NC	40		
3410083	F3 (C16-C34 Hydrocarbons)	2009/09/11	116	50 - 130	102	80 - 120	<10	mg/kg	5.1	40		
3410083	F4 (C34-C50 Hydrocarbons)	2009/09/11	121	50 - 130	111	80 - 120	<10	mg/kg	NC	40		
3410083	Reached Baseline at C50	2009/09/11							NC	50		
3410846	Soluble (2:1) pH	2009/09/12			100	96 - 104			0.8	20		

Maxxam Job #: A947822
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3412134	Soluble (2:1) pH	2009/09/12			100	96 - 104			0	20		
3437023	F4SG (Heavy Hydrocarbons-SilicaGel)	2009/09/22			109	N/A	<100	mg/kg	7.8	30		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) - LCS outside acceptance criteria (10% of analytes failure allowed)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80795 A-947822

CHAIN OF CUSTODY

Page: 1 of 8

Invoice To: Require Report? Yes ☐ No ☐

Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: jsmith@franzenvironmental.com and jkeenliside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1743-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PCB	VOC	PAH	WATERS: ☐ VOCs	☐ BTEX F1	☐ BTEX F1-F2	☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved	Filtered ☐ Not Filtered	REGULATED METALS (CCME / AT1)[1]	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	3-09-1-1	S	09/08/29	X								X	X															3
2	3-09-2-1	S			X																							2
3	3-09-2-2	S		X																								2
4	3-09-3-1	S																									X	2
5	3-09-3-2	S		X																								1
6	3-09-4H1	S																									X	3
7	3-09-4H2	S		X	X																							3
8	3-09-4H-3	S		X							X	X	X															3
9	3-09-DUP-1	S		X								X	X															3
10	3-09-5H-1	S																									X	3
11	3-09-5H-2	S		X																								3
12	3-09-5H-3	S																									X	3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Viviane Date/Time: Aug 31 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 1590	2.2.2 4.5.6 9.9.9	9.10.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80794 **CHAIN OF CUSTODY** Page: 2 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRASE ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND ST. VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9941

Report To:
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb- ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): Glycols	Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	3-09-6M-1	S	2009/08/29																				X	3
2	3-09-6M-2	S																					X	3
3	3-09-6M-3	S		X																				3
4	3-09-DUP-2	S		X																				3
5	1-09-1M-1	S		X																				5
6	1-09-2M-1	S		X			X				X	X	X									X	X		5
7	1-09-3M-1	S		X			X																		5
8																									
9																									1
10																									
11																									
12																									

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Date/Time: Aug 31, 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 1550	2.2 | 2 9 | 10 | 9 4 | 5 | 6 9 | 9 | 9	
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80792

CHAIN OF CUSTODY

Page: 3 of 8

Invoice To: Require Report? Yes ☐ No ☐

Company Name: Franz environmental
Contact Name: 308-1080 mainland
Address: Vancouver
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
jsmith@franzenvironmental.com
and jkennedside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 248-0901
Project Name: Cambridge Bay
Location:
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):
_____
_____
_____

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	☐ Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb[1] ☐ F	Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Filtered	REGULATED METALS (CCME / AT1)[1] ☐ Preserved ☐ Not Filtered ☐ Dissolved	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	1-09-4M-1	S	2009/08/30	X			X																	2
2	1-09-5M-1	S		X			X				X													2
3	1-09-6M-1	S		X	X		X				X	X	X											3
4	1-09-DUP-1	S		X																				2
5	4a-09-1M-1	S		X																				3
6	4a-09-2M-1	S		X																				3
7	4a-09-3M-1	S		X			X				X		X											3
8	4a-09-DUP-1	S		X																				3
9	4A-09-4-1	S		X			X				X		X											3
10	4A-09-5-1	S		X			X				X		X											3
11	4A-09-6-1	S		X																				3
12	4A-09-6-2	S		X																				3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vincent Doto **Date/Time:** Aug 31, 2009

Sign and Print: _____

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	09/09/12 MA 15:50	2/2/12 4/5/6 9/9/9	9/09/09
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL-FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80793 **CHAIN OF CUSTODY** Page: 4 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND ST VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: SAME AS invoice
jsmith@franzenvironmental.com and jkenlside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: MC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved	☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	4A-09-7-1	S	2009/08/30	X																		3
2	4A-09-8-1	S	2009/08/30	X																		3
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivane Doiron **Date/Time:** Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 02/09/09 15:50	2.2.2 4.5.6 9.9.9	9.10.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80791 **CHAIN OF CUSTODY** Page: 5 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
JSmith@franzenvironmental.com and jkenlside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb- ☐ F	REGULATED METALS (CCME / AT1)[3] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	5-09TP3-3	S	2009/08/30																			X	3
2	5-09TP3-4	S		[illegible]			[illegible]				[illegible]	[illegible]										X	3
3	5-09TP4-1	S																				X	3
4	5-09TP4-2	S																				X	3
5	5-09TP4[illegible]-3	S		X			X				X	X											3
6	6-09TP1-2	S																				X	3
7	6-09TP1-1	S																				X	3
8	6-09TP1-3	S		X			X				X	X											3
9	[illegible] BG-1	S					X																1
10	BG2	S					X																1
11	BG-3	S					X																1
12																							

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vanessa Date Date/Time: Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2, 2, 2, 1 / 4, 5, 6 / 9, 9, 9, 1	9, 10, 9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80785 **CHAIN OF CUSTODY** Page: 6 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name:
Address: James Smith - Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To: James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☑ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	S-09-TP1-1	S	2009/08/30	X			X				X	X											3
2	S-09-TP1-2	S																				X	3
3	S-09-TP1-3	S																				X	3
4	S-09-TP2-1	S		X			X				X	X											3
5	S-09-TP2-2	S																				X	3
6	S-09-TP2-3	S																				X	3
7	S-09-TP3-1	S		X			X				X	X											3
8	S-09-TP3-2	S																				X	3
9																							
10																							
11																							
12																							

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vanessa Stolz **Date/Time:** Aug 31/2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 / 4.5.6. / 9.9.9.	9.1 w.i. 9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80786 **CHAIN OF CUSTODY** Page: 7 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: VANCOUVER
Prov: PC:
Contact #s: Ph: 604-632-9941 Fax:

Report To: James Smith
jsmith@franzenvironmental.com
jkenlisside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-09 01
Project Name: Cambridge Bay
Location:
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOCs	BTEX F1 ☐ VOCs	BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb. ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP1 1	S	2009/08/29																			5
2	2-09-TP1-2	S		X			X				X											3
3	2-09TP2-1	S																			X	5
4	2-09-TP2-2	S		X			X				X								X			5
5	2-09-TP3-1	S		X			X				X											3
6	2-09-TP3-2	S																			X	3
7	2-09-TP4	S		X			X				X											3
8	2-09-TP5-1	S		X			X				X											3
9	2-09-TP6-1	S		X			X				X											3
10	2-09-TP7-1	S		X			X				X											3
11	2-09-TP8-1	S		X			X												X			3
12	2-09-TP9-1	S	↓	X			X					X										3

Restricted

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivian Date Date/Time: Aug 31/2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2,2,2 / 4,5,6 / 9,9,9	9,10,9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80787 **CHAIN OF CUSTODY** # 8 Page: 8 of 8

Invoice To: Require Report? Yes [X] No [ ]
Company Name: Fraser environmental
Contact Name:
Address: Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To:
James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1348-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
[ ] AT1
[X] CCME
[ ] OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
[ ] **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
[X] REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter	pH (1:1)	TCLP	BTEX	Metals	WATERS: BTEX F1 VOCs	BTEX F1-F2	BTEX F1-F4	Routine Water Package	Turb	F	Total Preserved	Not Preserved	Dissolved Preserved	Not Preserved	Filtered	Not Filtered	REGULATED METALS (CCME / AT1)[2]	Mercury Total	Dissolved	Ammonia	TKN	COD	TOC	DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP10-1	S	2009/08/29	X			X						X	VOCs																						3
2	GR2	S	2009/08/29	X			X						X																					if not enough jars just perform BTEX/metals		3
3	2-09-TPDUP-1	S	2009/08/29	X			X						X																							2
4																																				
5																																				
6																																				
7																																				
8																																				
9																																				
10																																				
11																																				
12																																				

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivienne Dodo Date/Time: Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

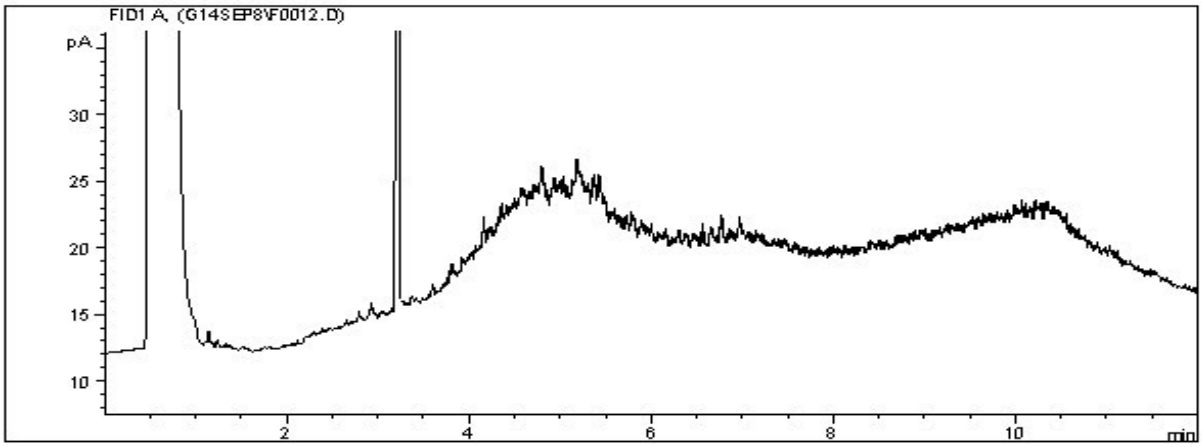
# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 4.5.6. 9.9.9.	9/10/09
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

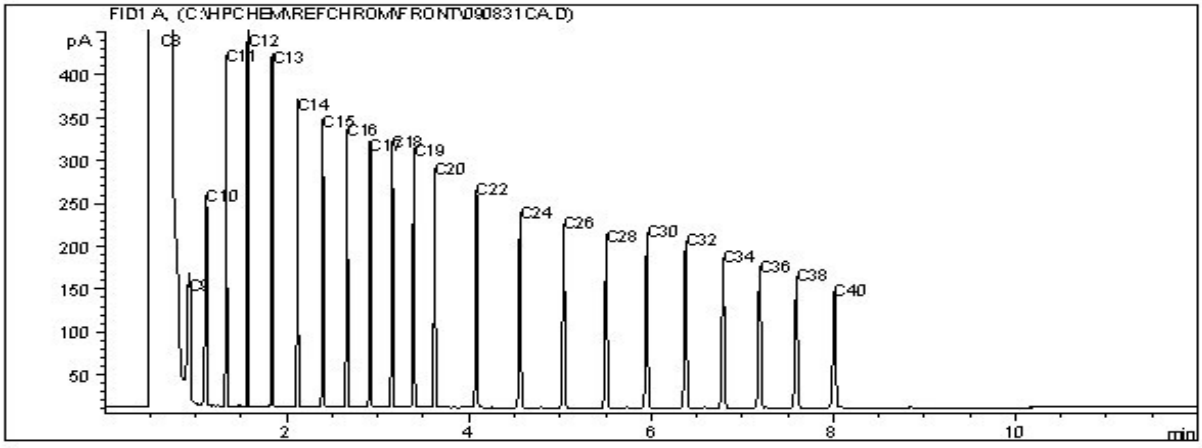
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56933

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-1-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

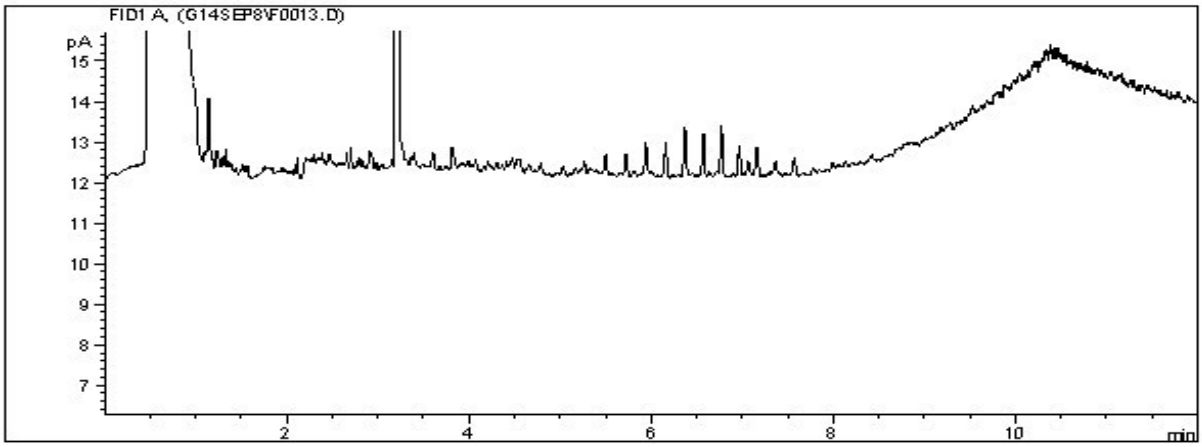
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

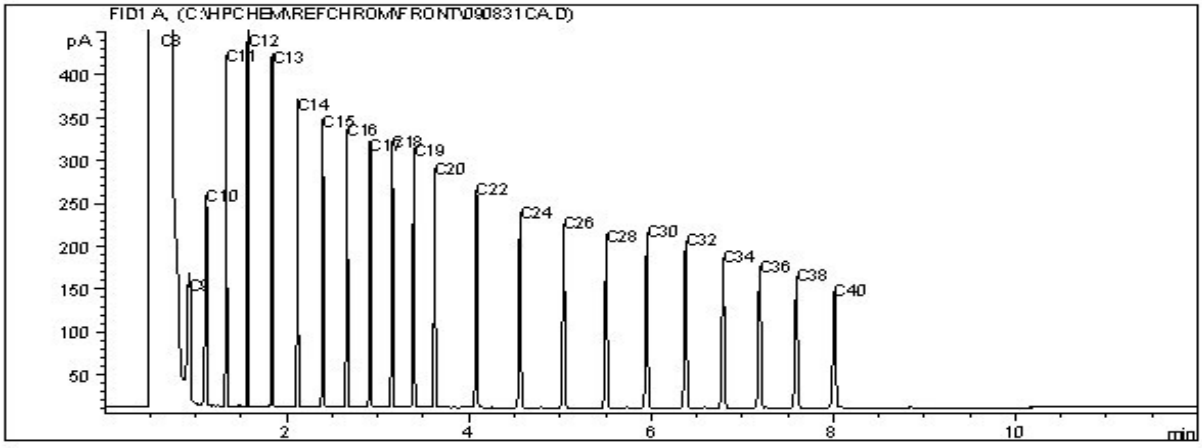
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56935

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-2-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

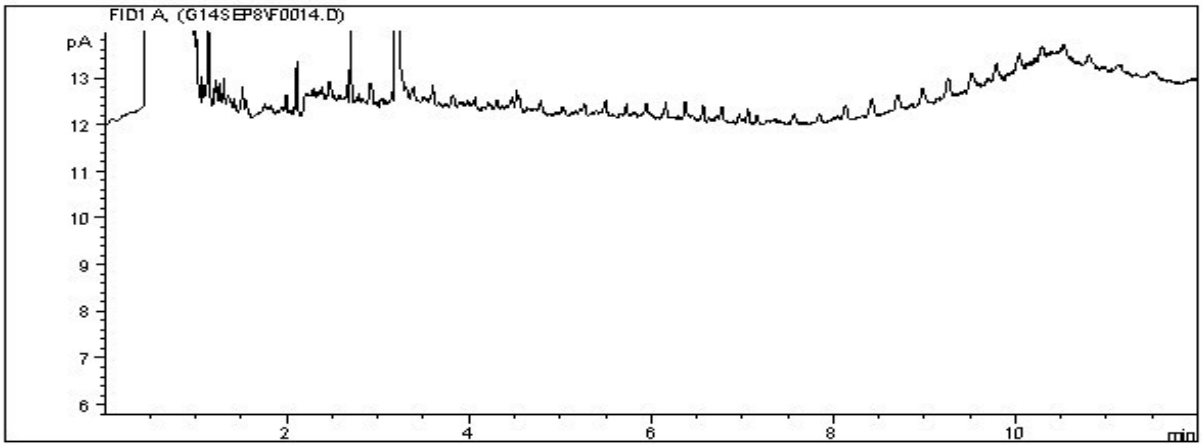
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

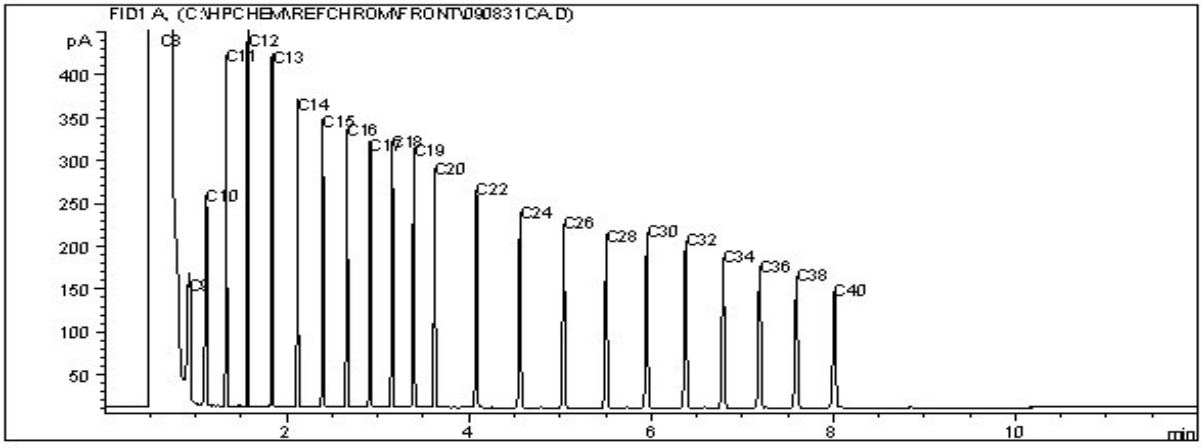
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56937

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-3-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

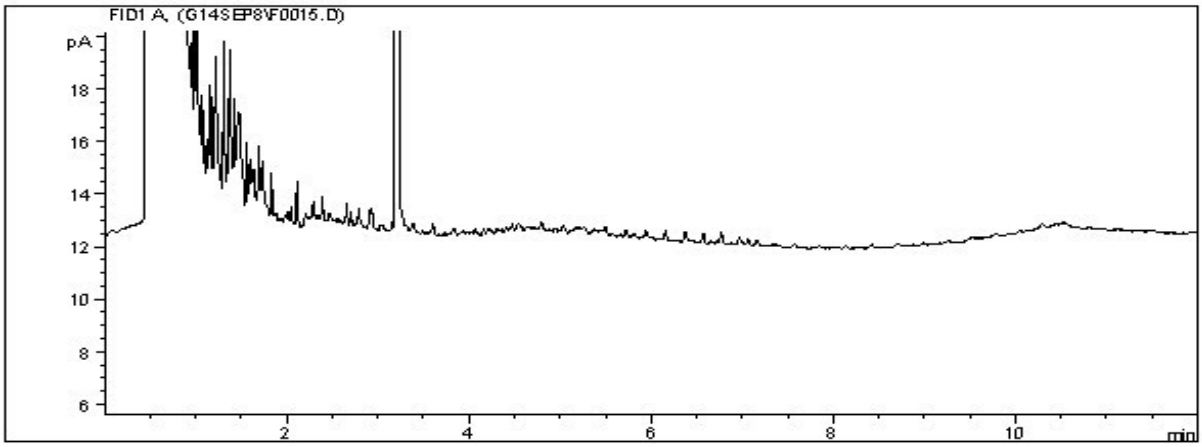
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

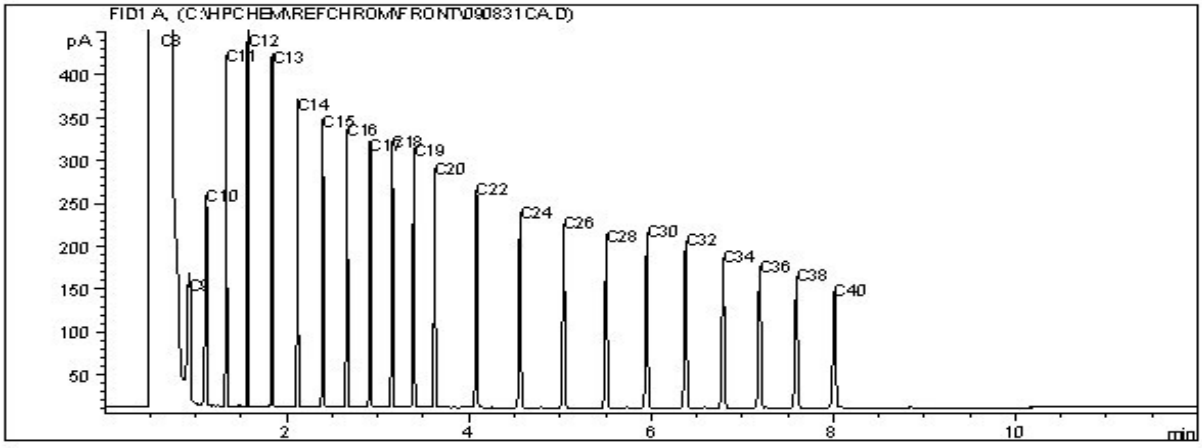
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56939

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-4M-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

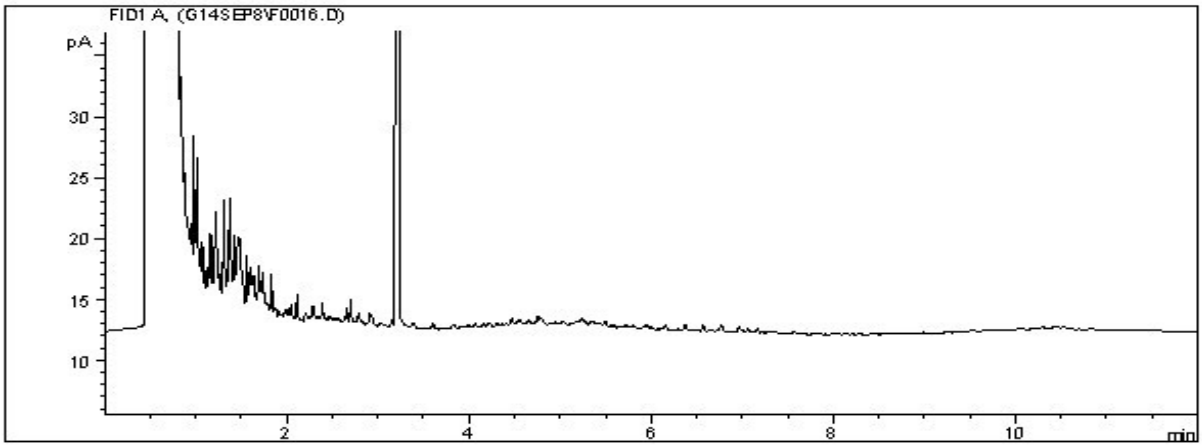
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

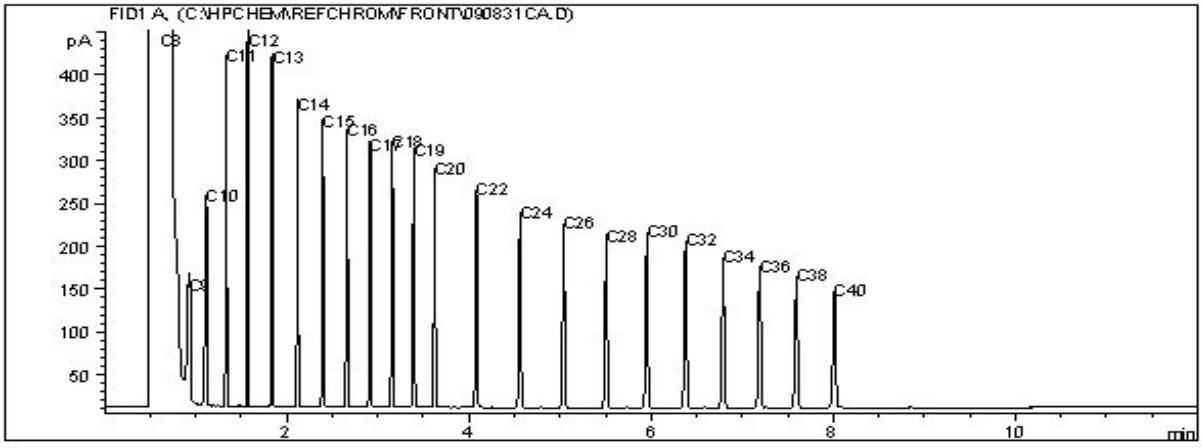
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56940

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-4M-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

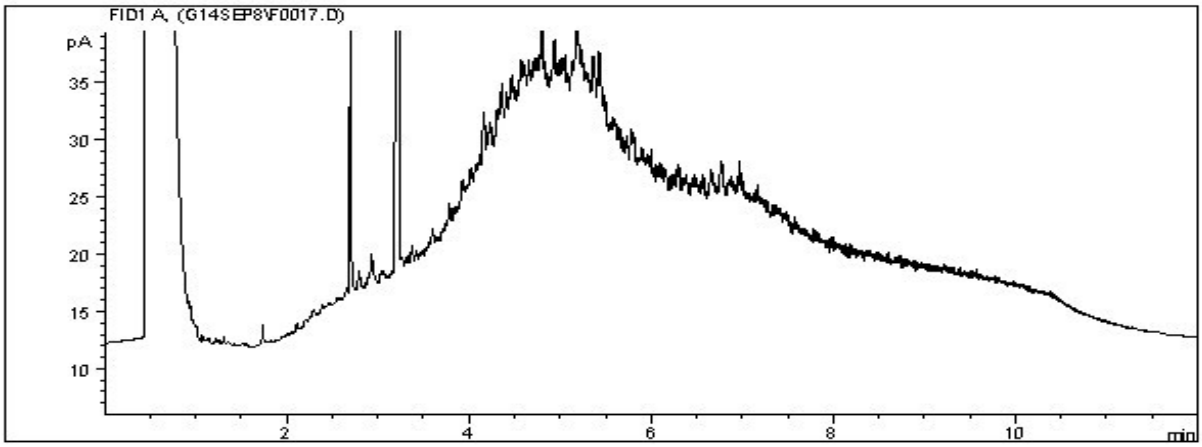
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

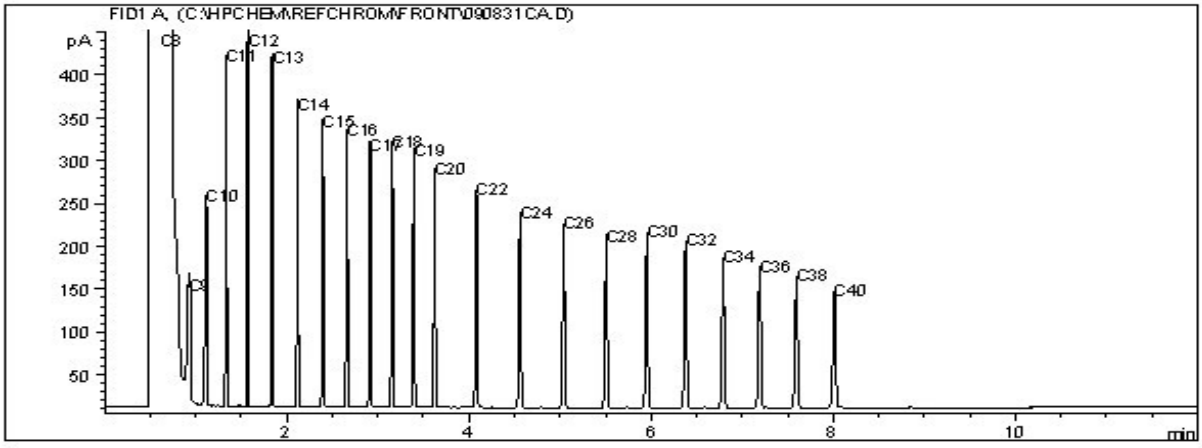
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56941

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

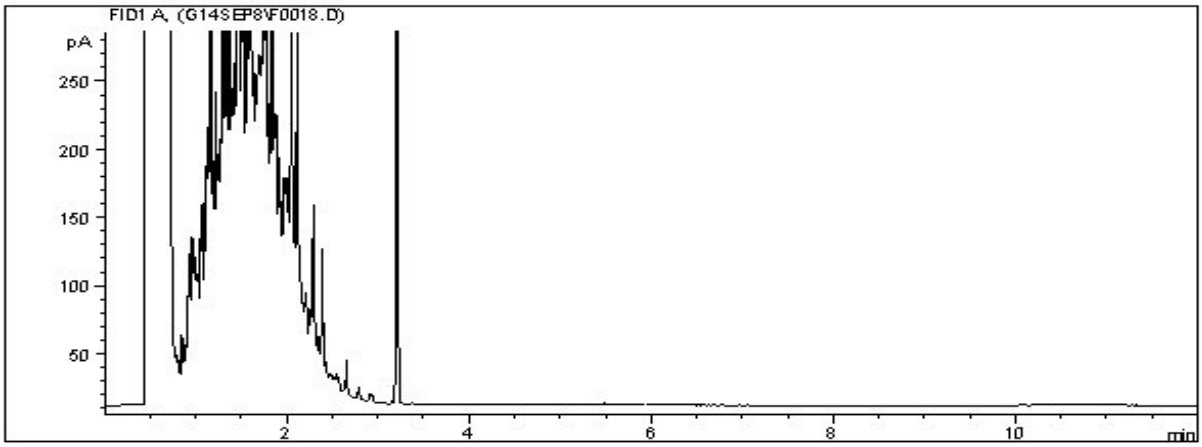
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

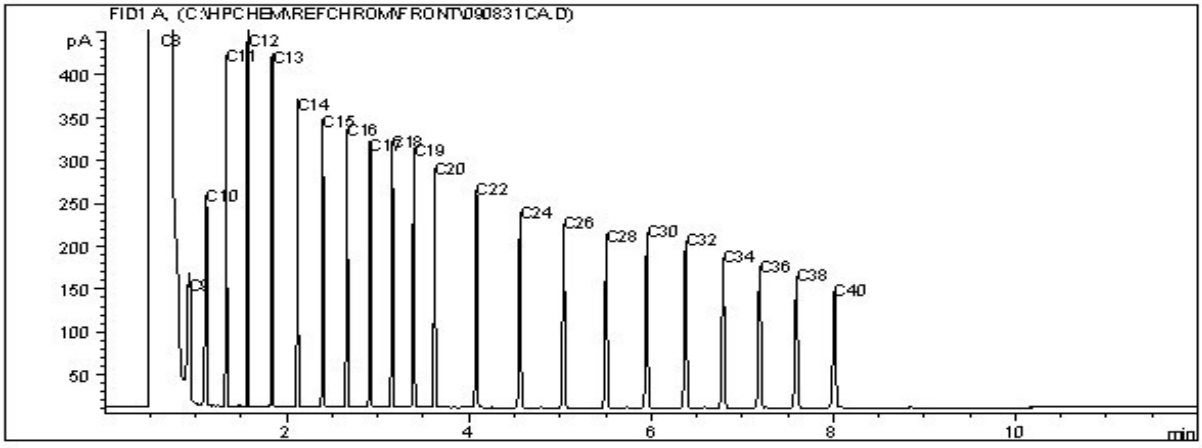
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56943

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-5M-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

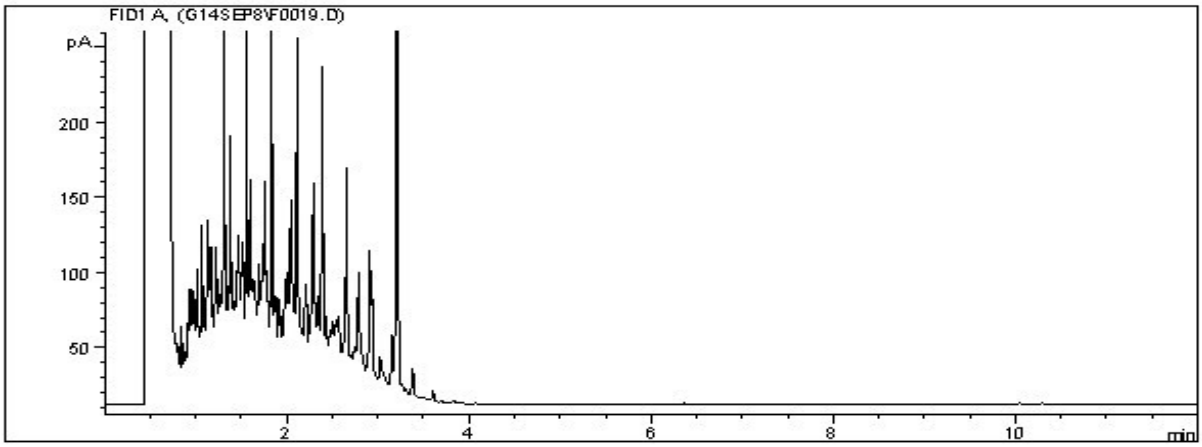
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

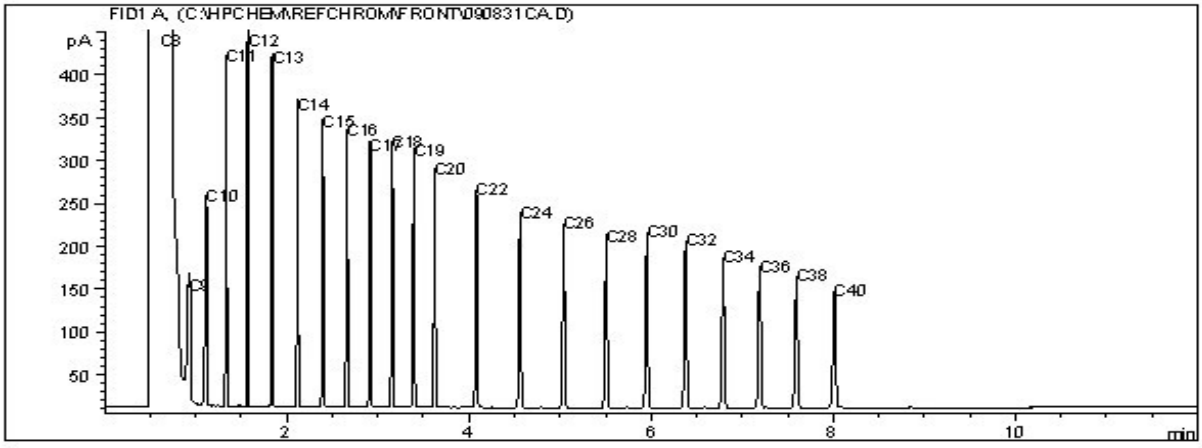
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56947

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-6M-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

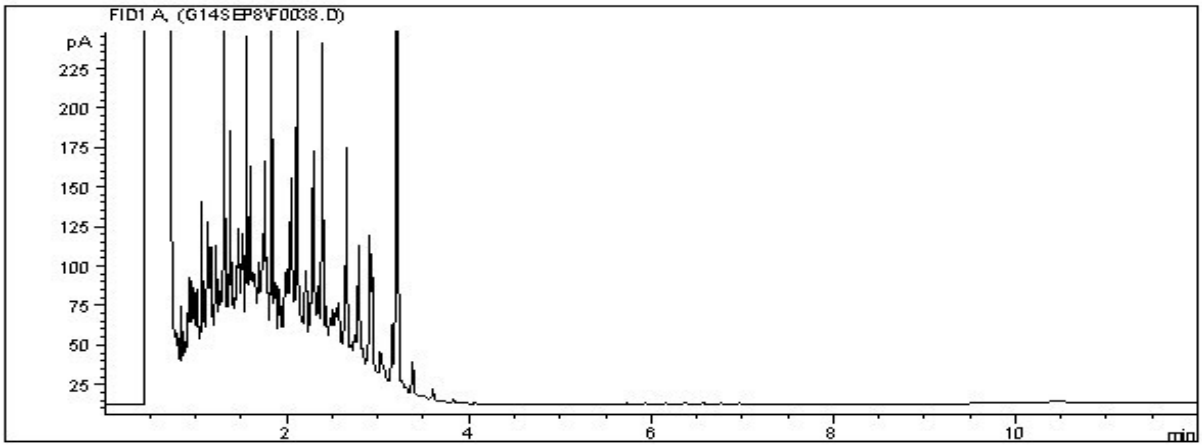
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

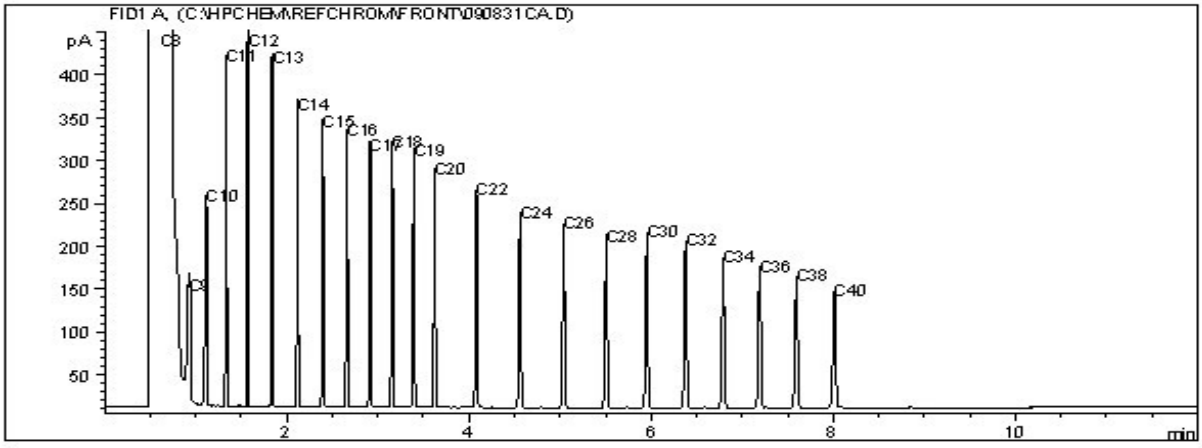
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56948

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-DUP-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

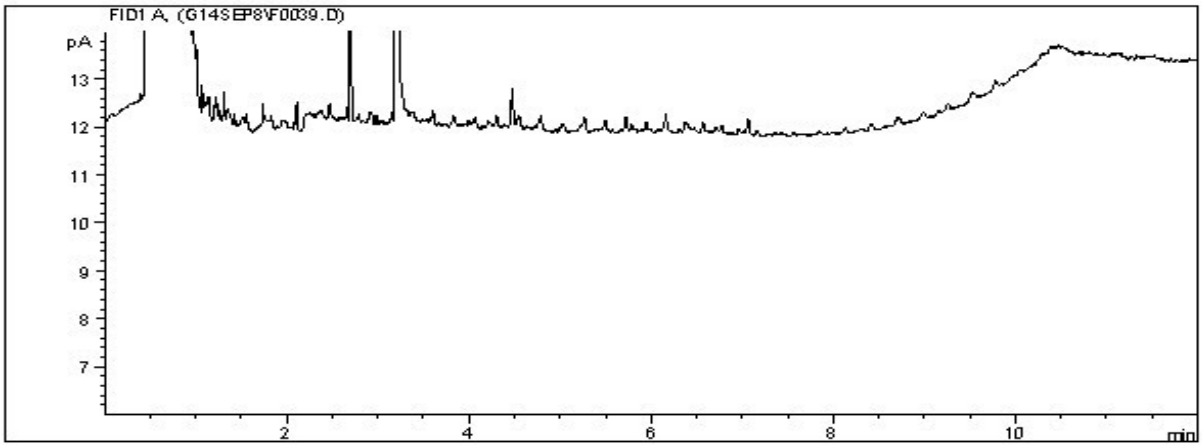
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

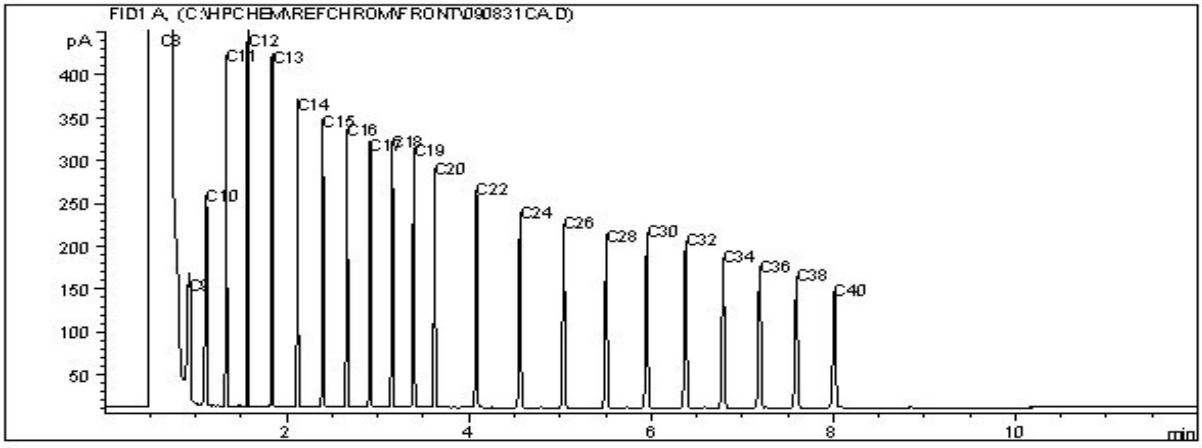
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56949

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-1M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

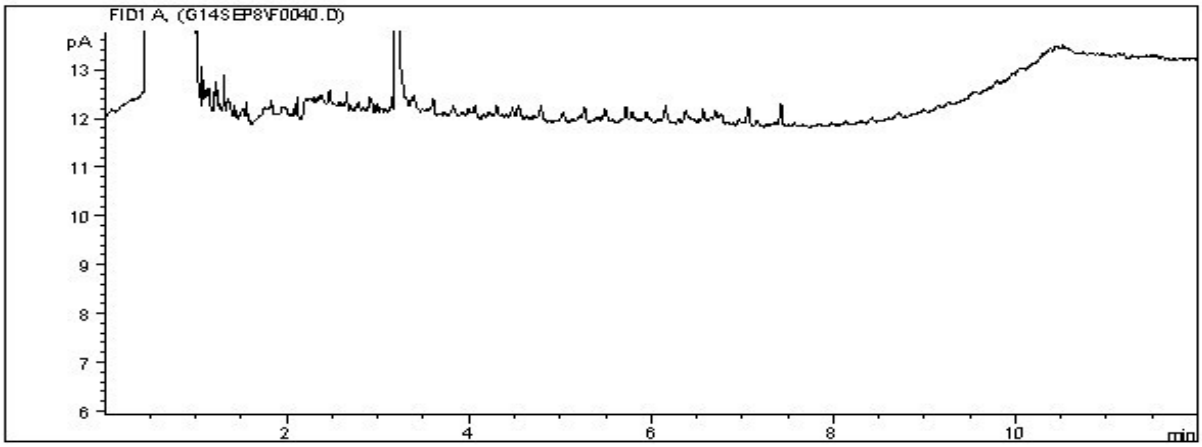
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

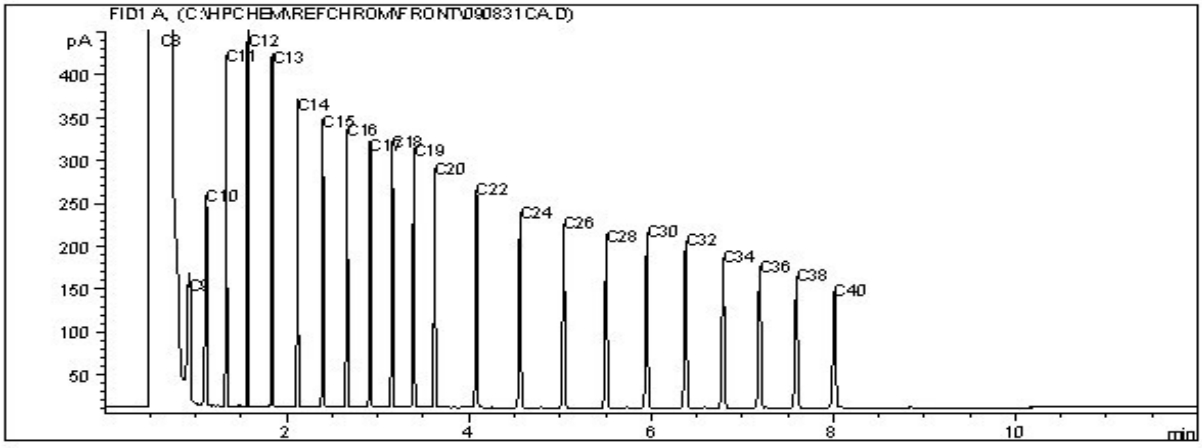
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56950

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-2M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

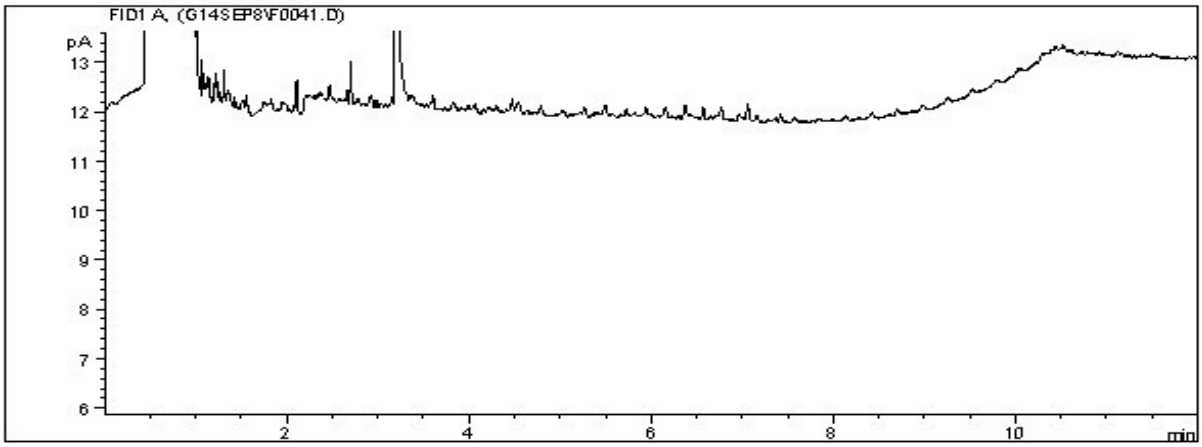
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

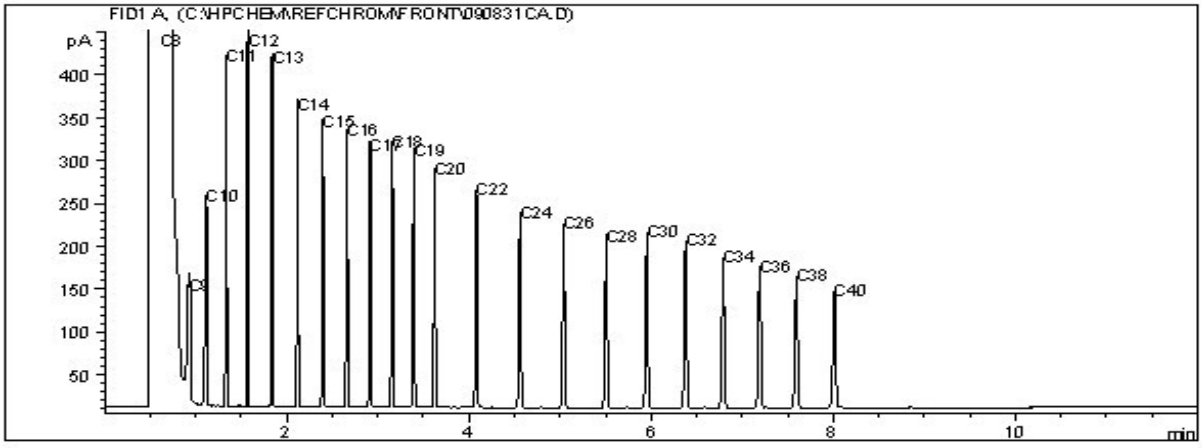
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56951

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-3M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

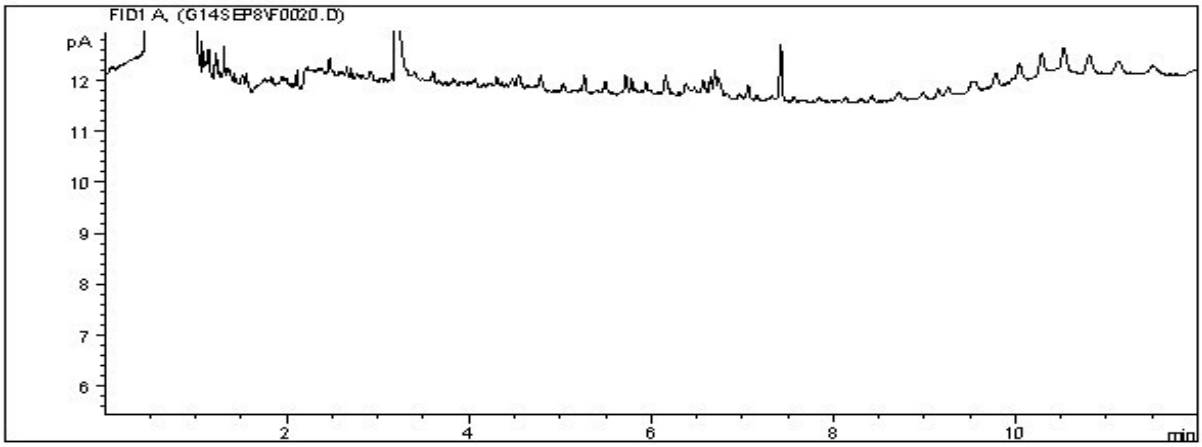
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

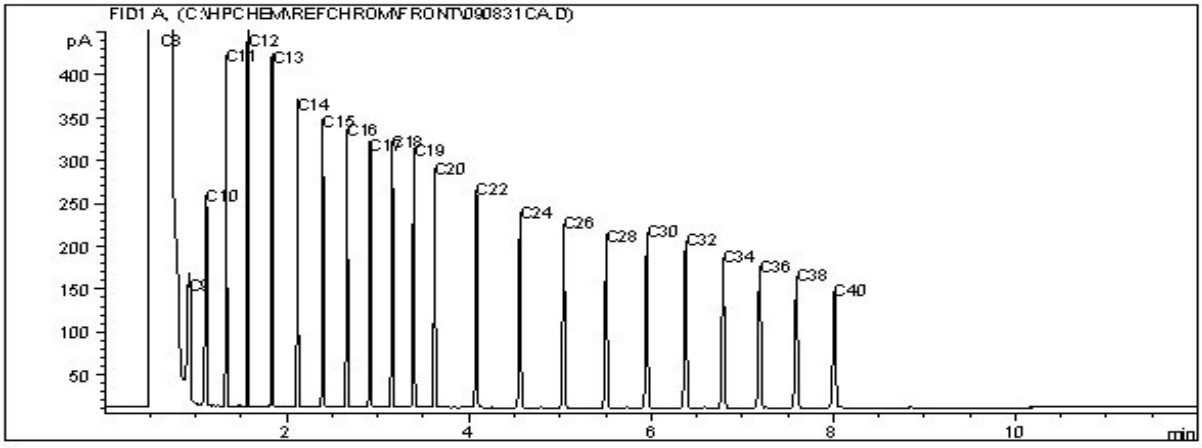
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56978

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-4M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

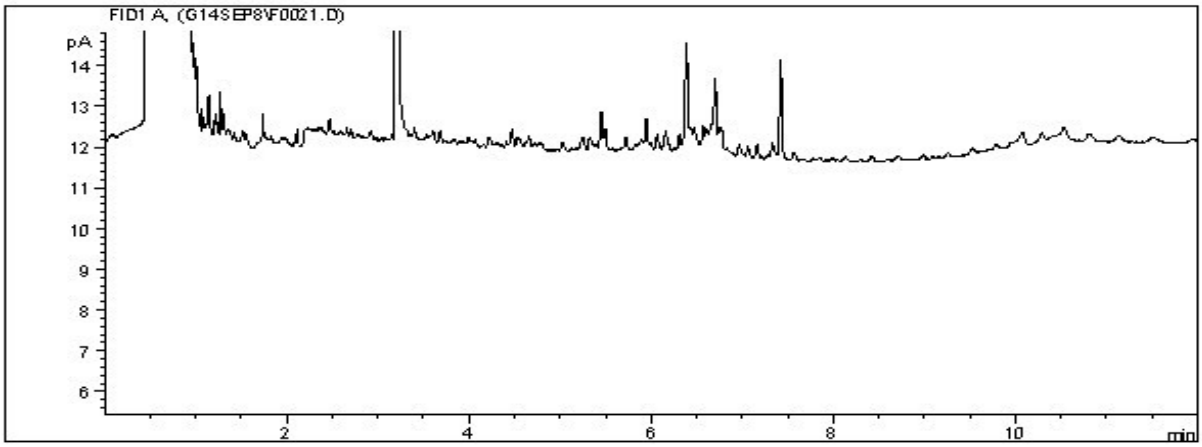
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

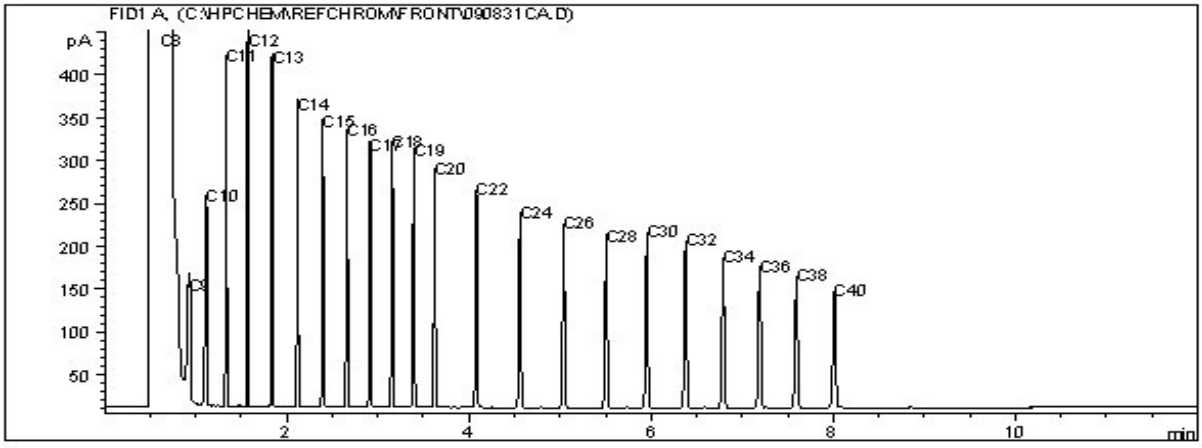
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56979

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-5M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

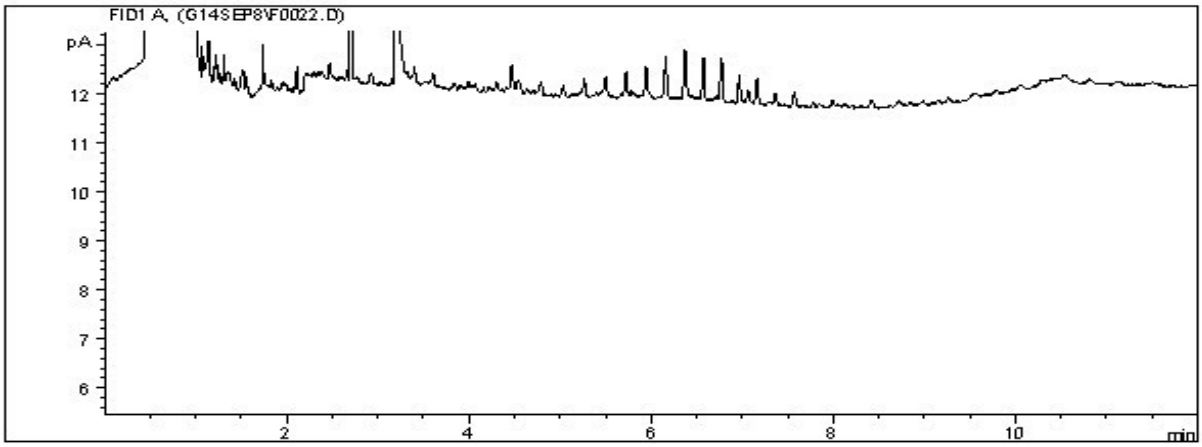
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

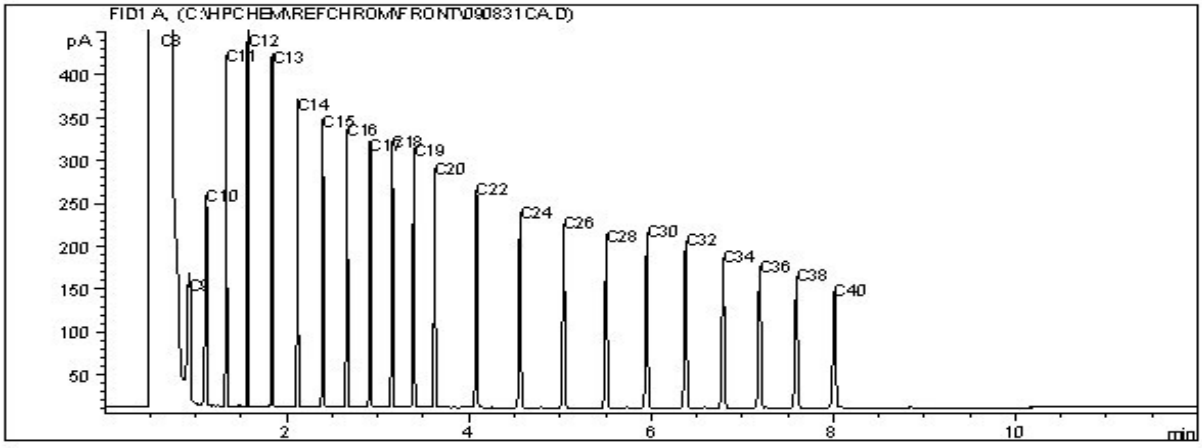
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56980

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-6M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

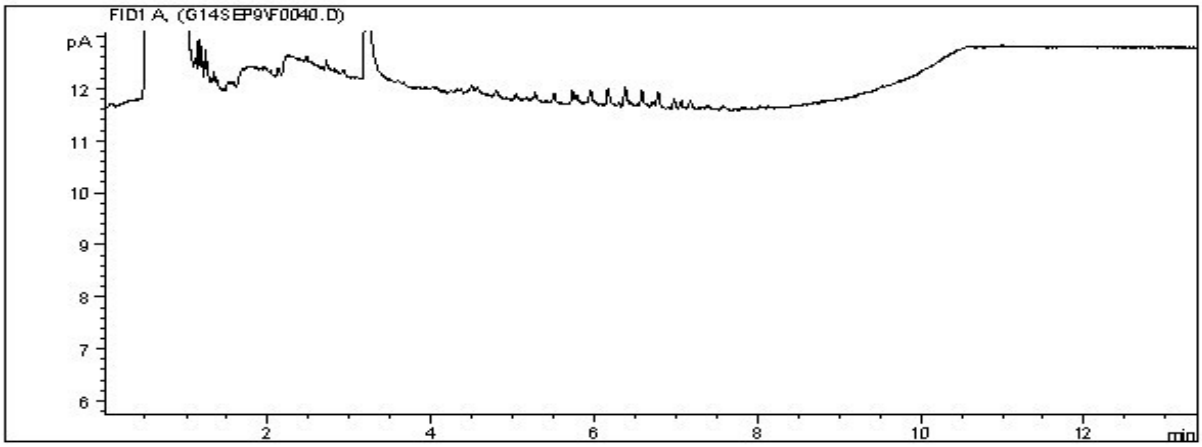
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

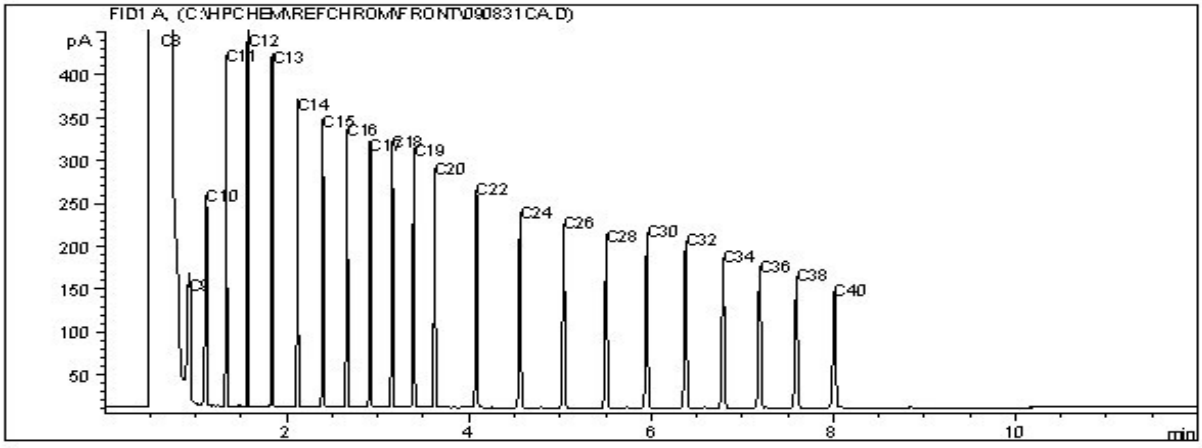
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56981

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

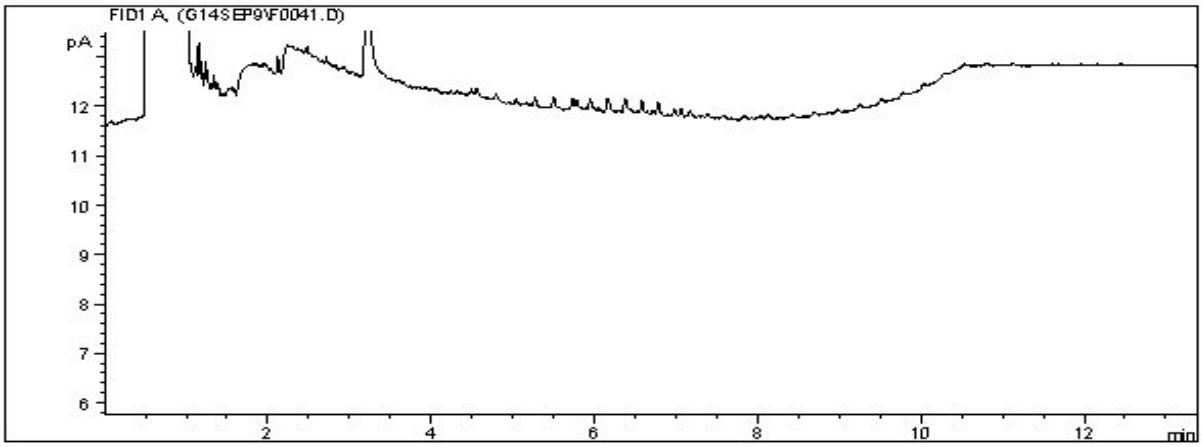
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

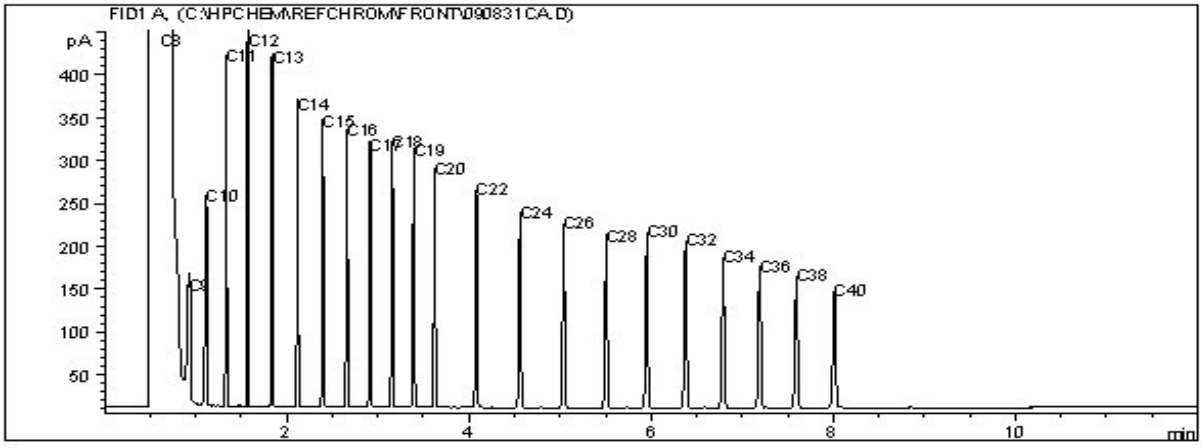
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56981

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

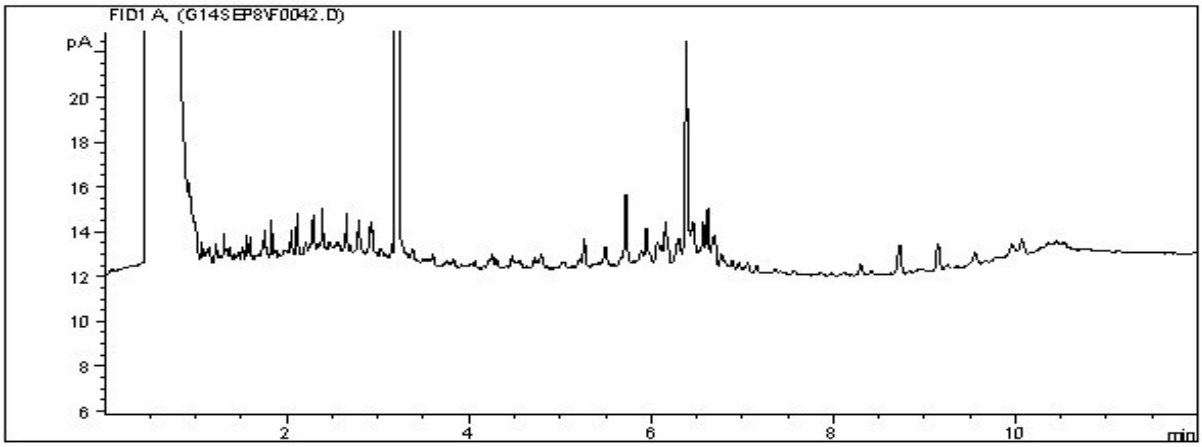
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

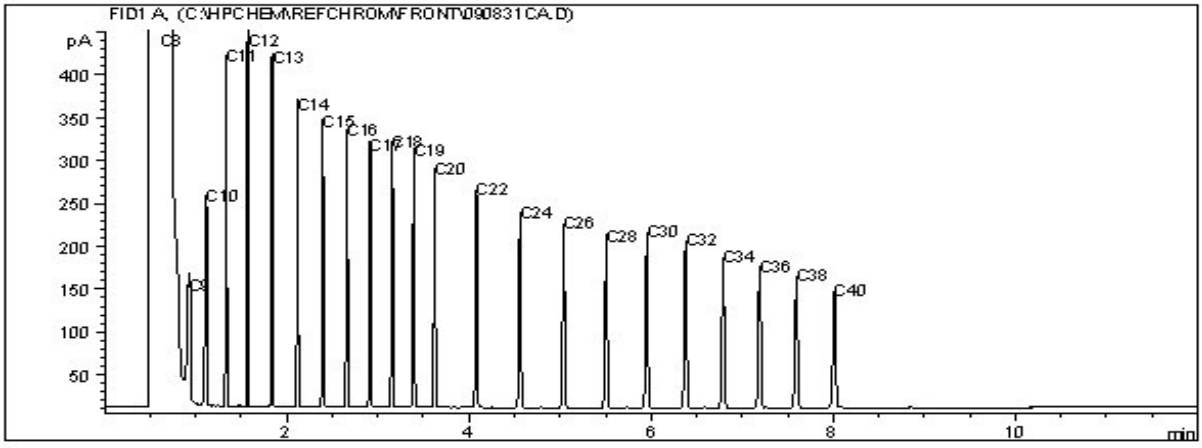
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56982

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-1M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

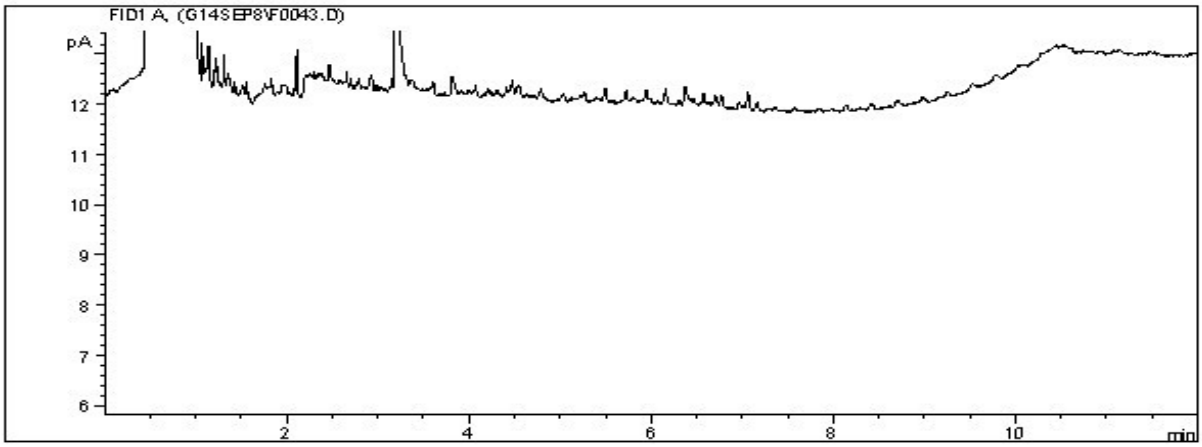
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

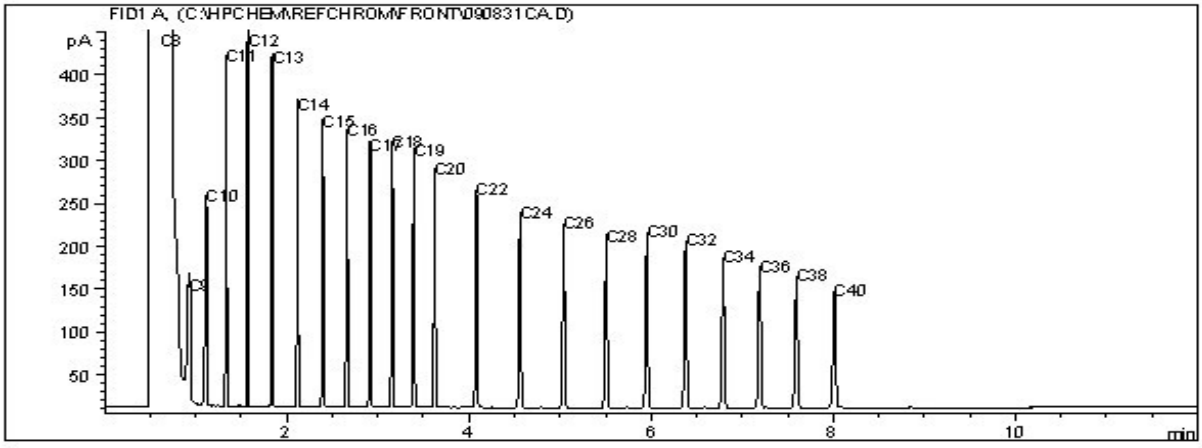
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56983

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-2M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

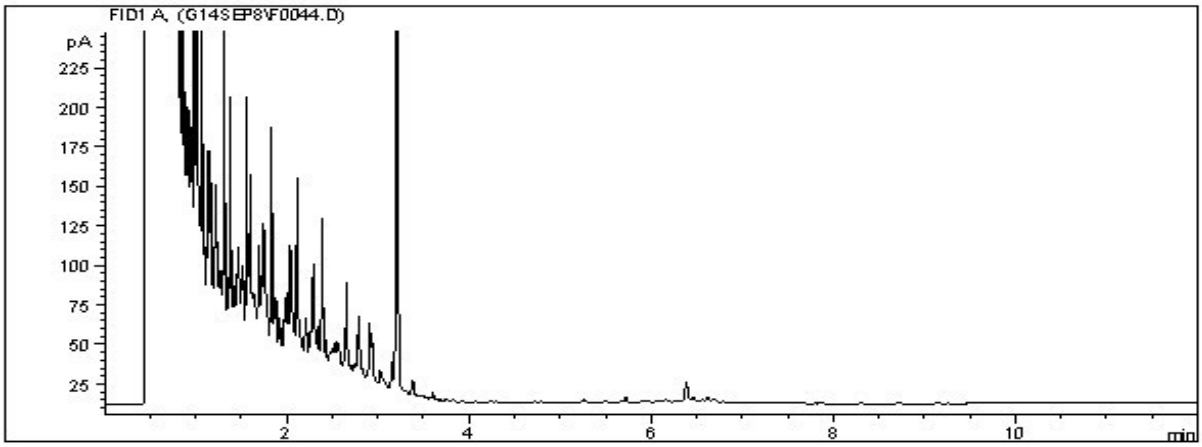
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

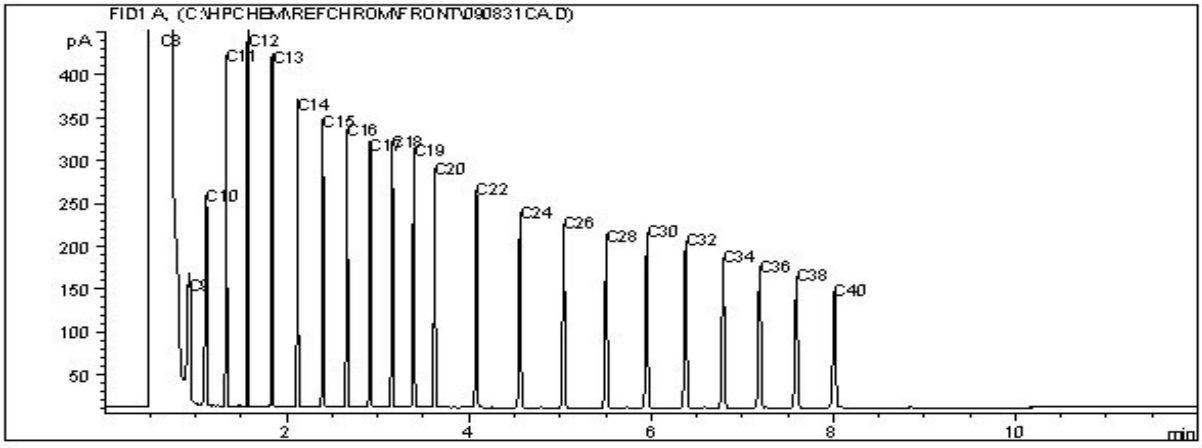
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56984

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-3M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

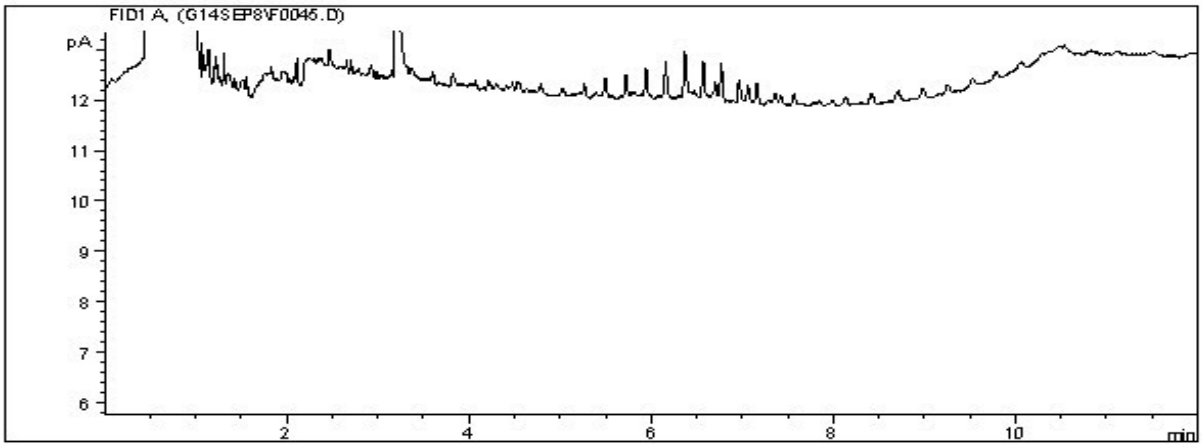
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

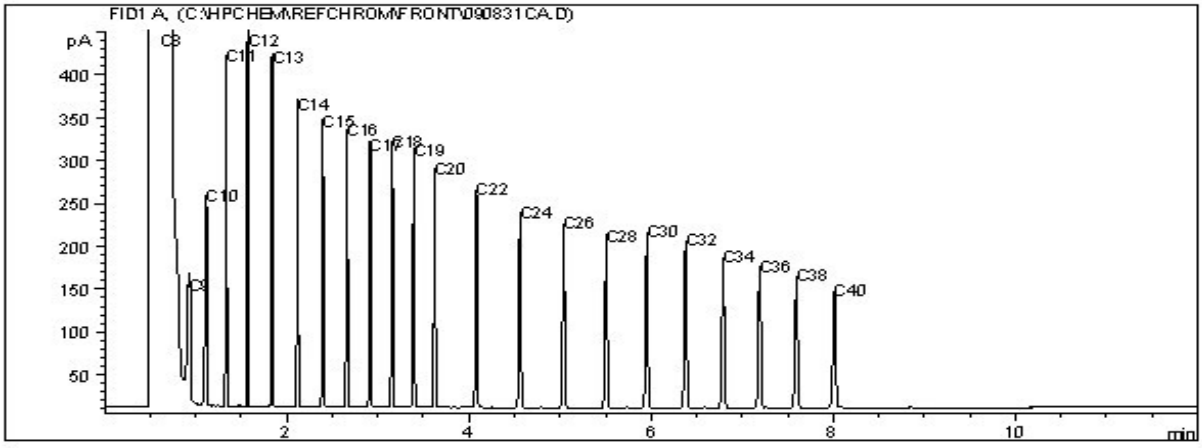
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56985

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

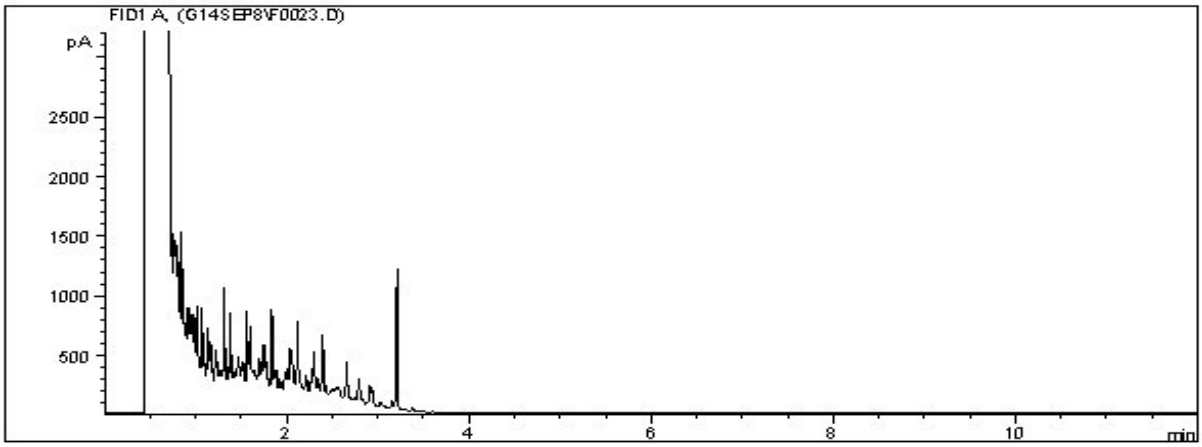
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

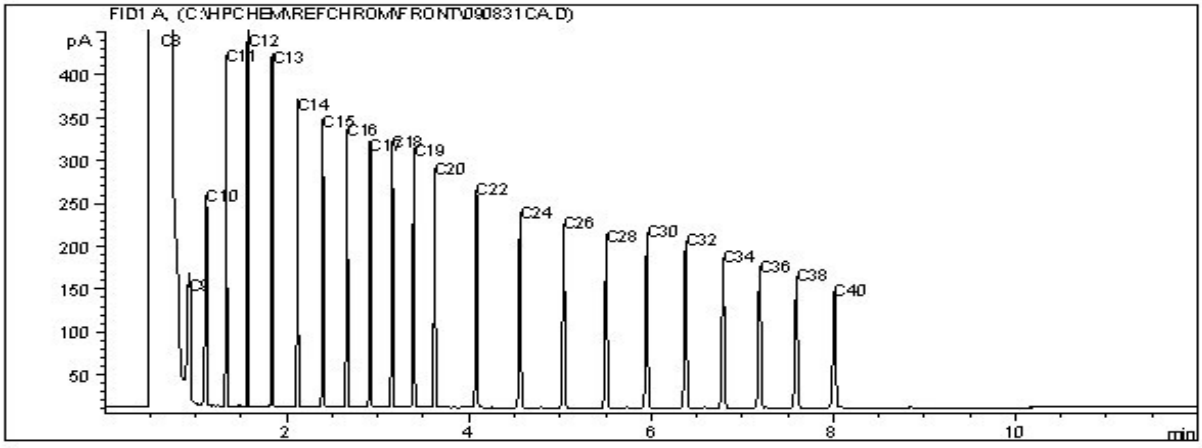
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56986

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-4-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

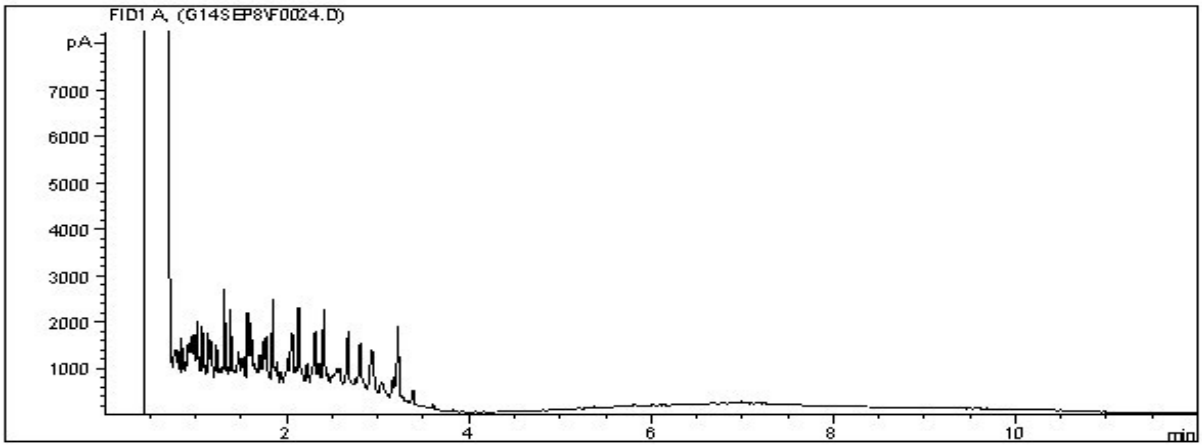
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

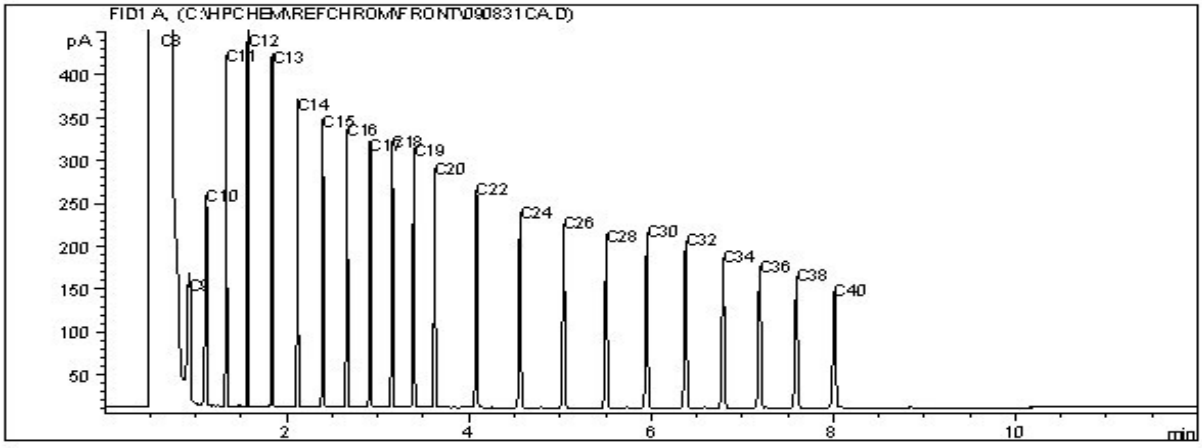
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56987

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-5-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

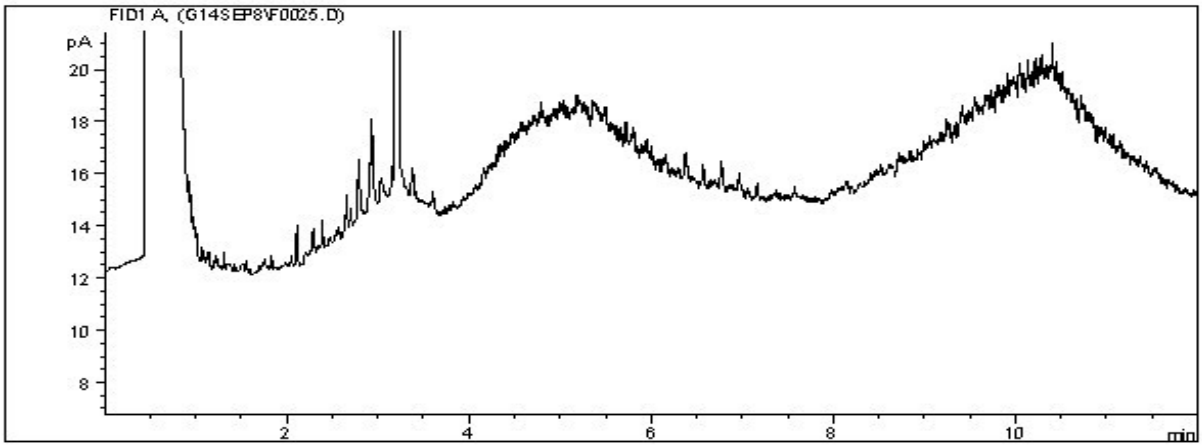
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

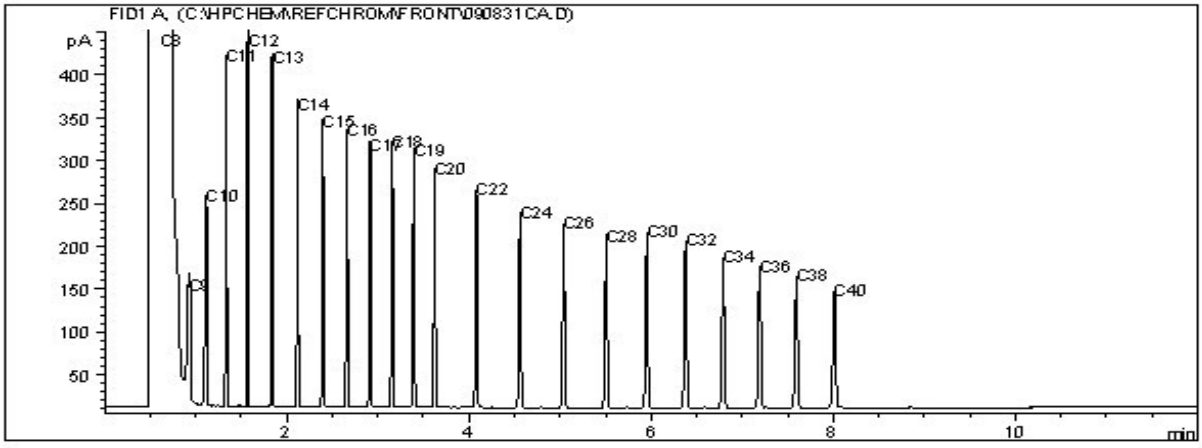
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56988

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-6-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

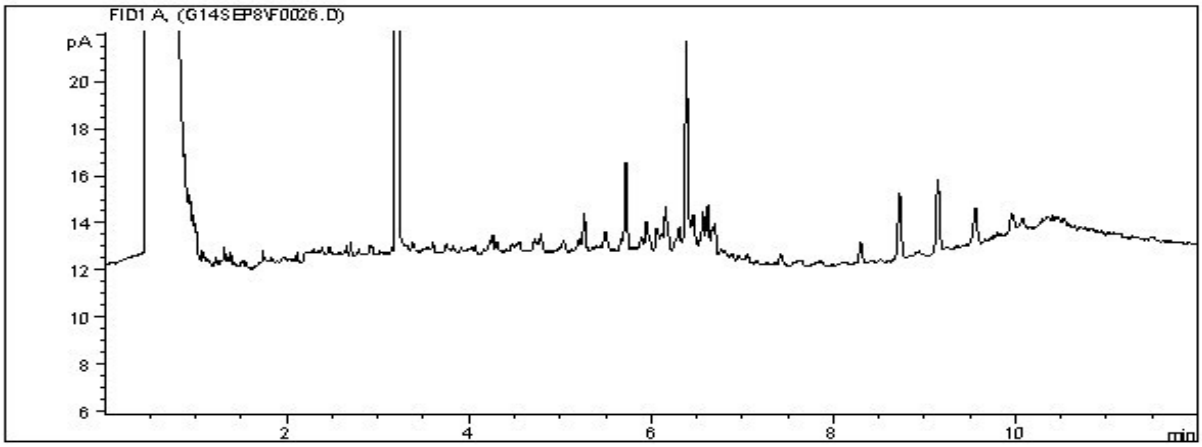
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

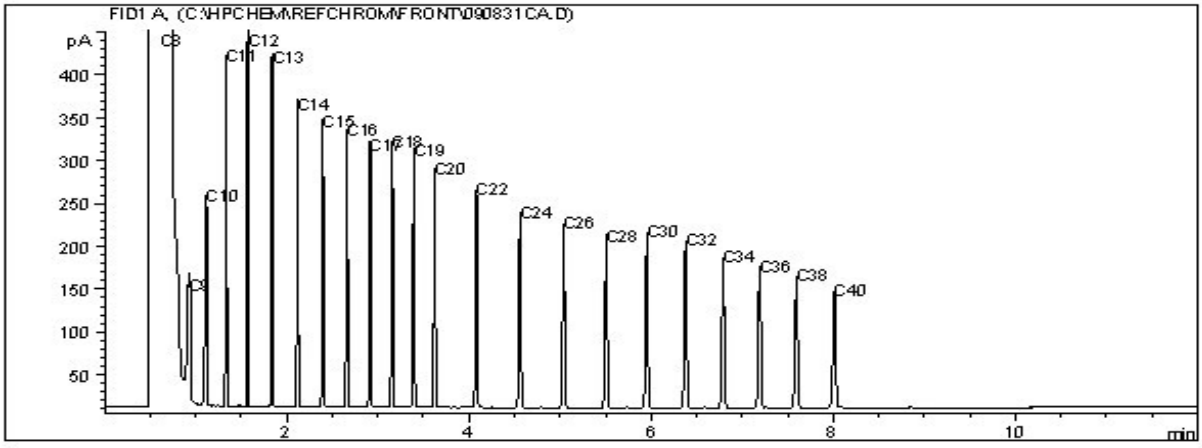
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q56989

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-6-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

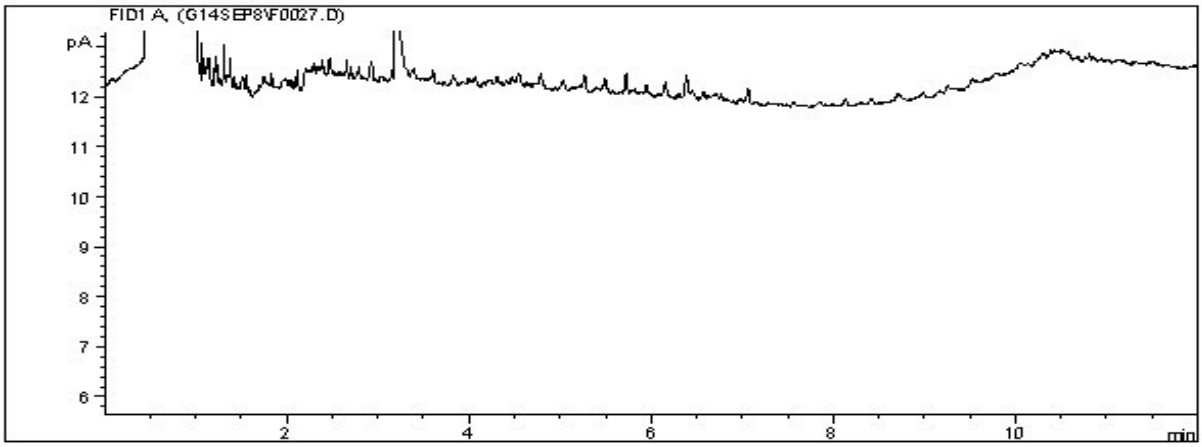
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

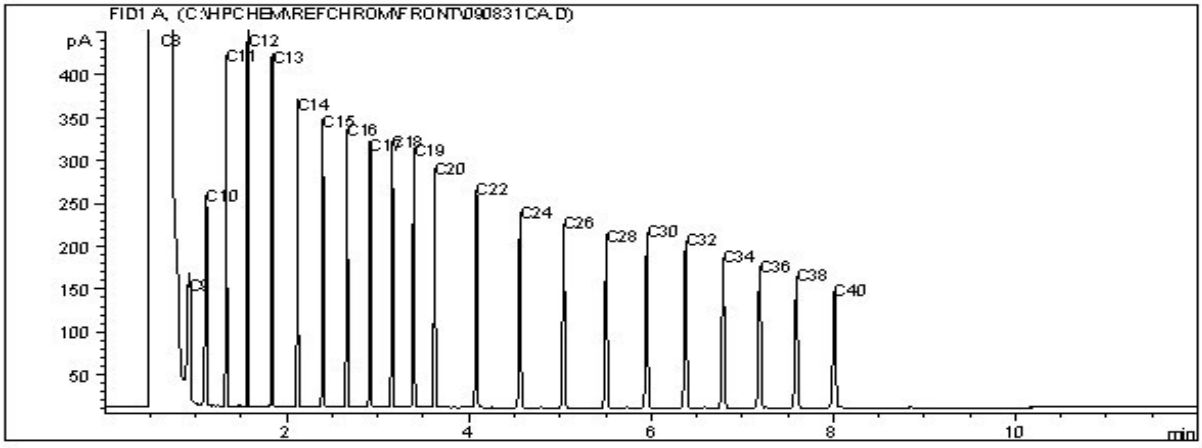
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57022

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-7-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

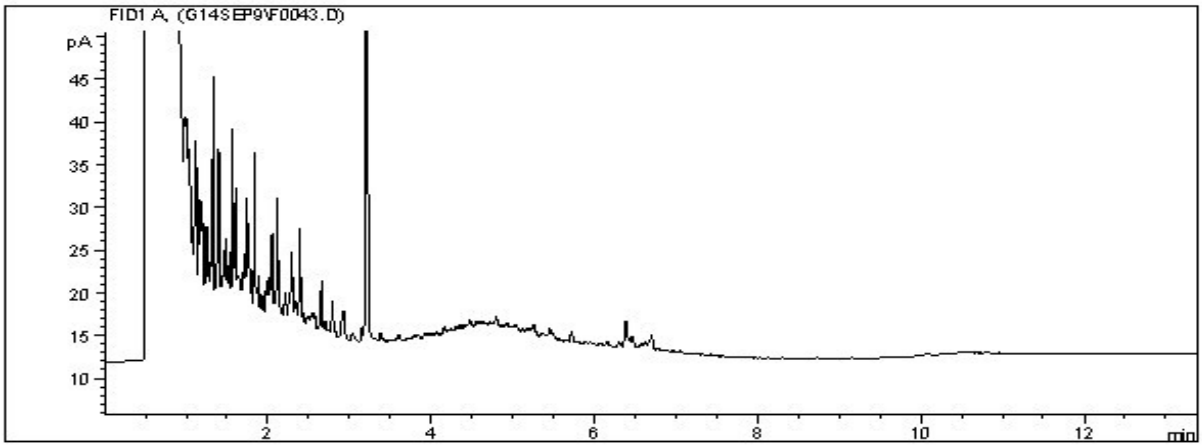
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

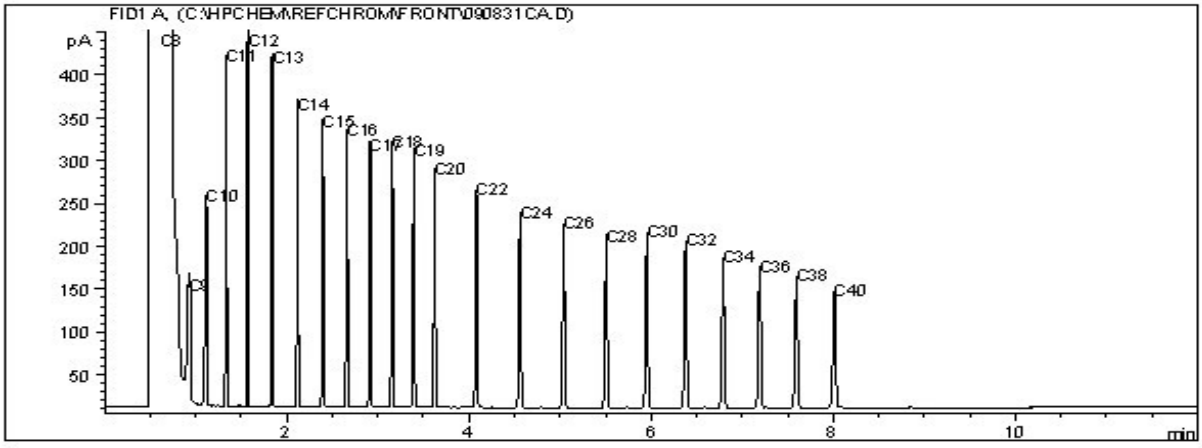
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57023

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-8-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

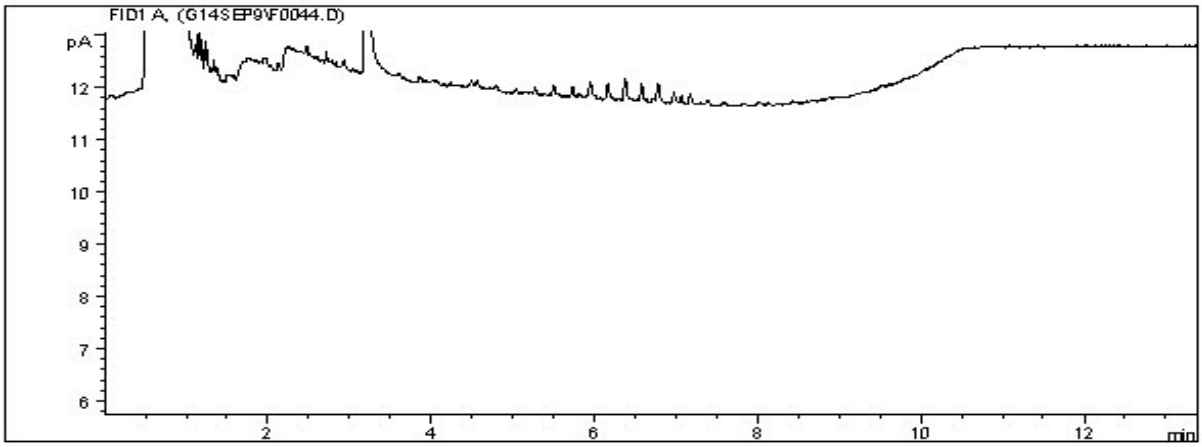
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

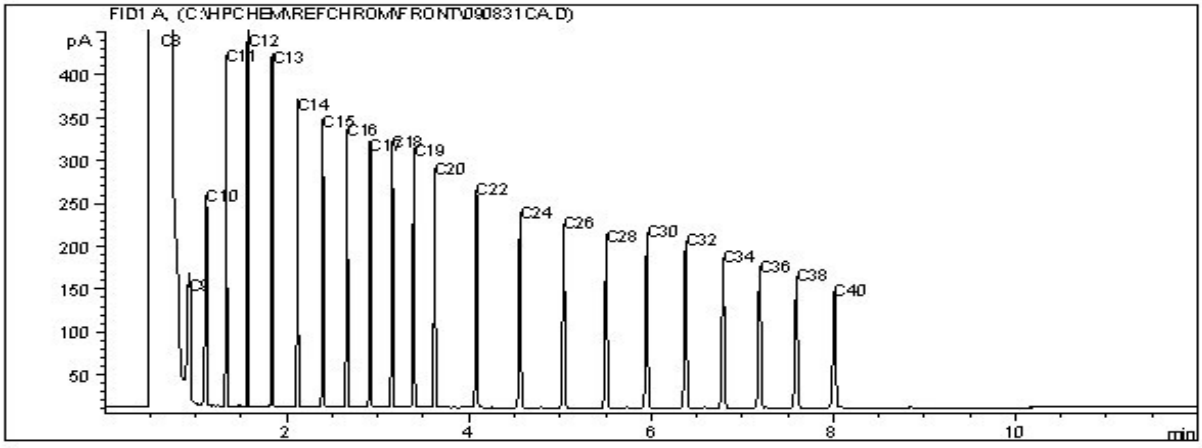
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57029

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09TP4-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

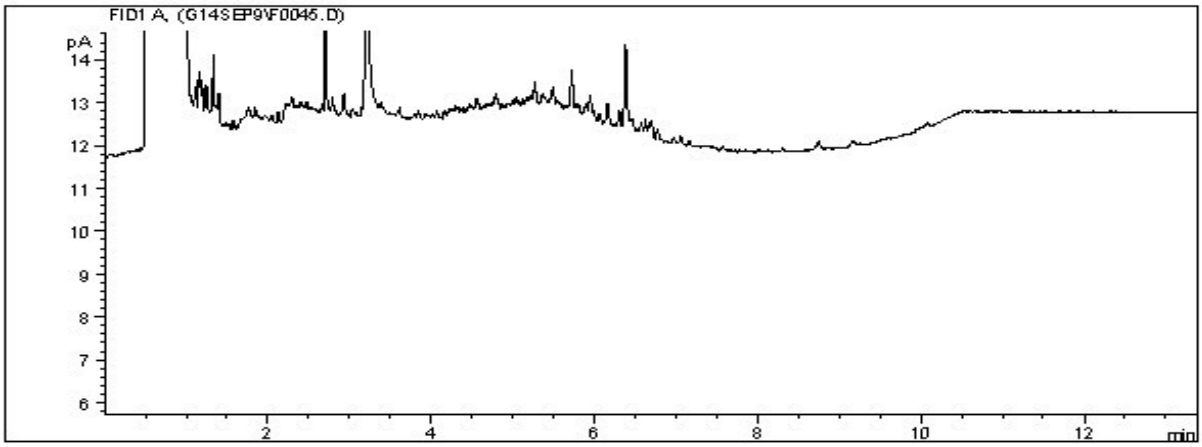
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

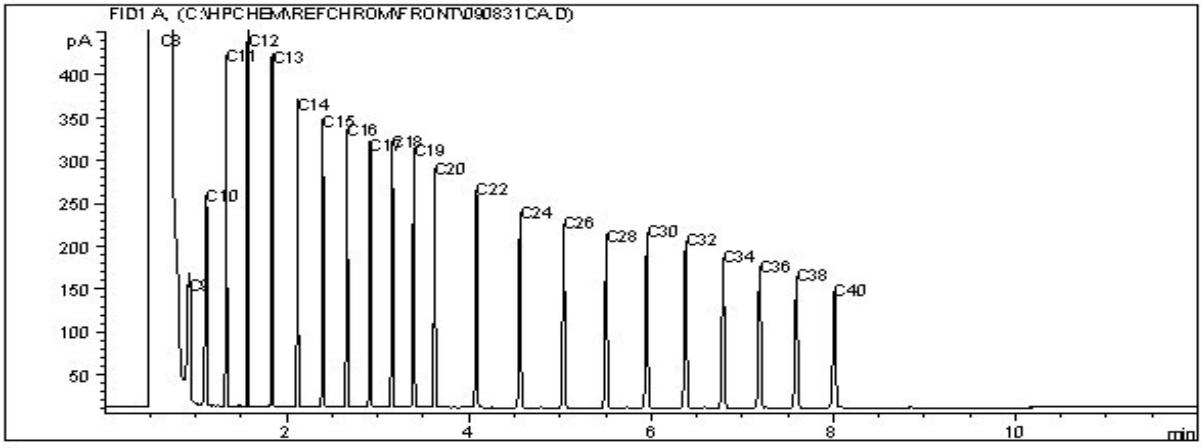
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57032

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 6-09TP1-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

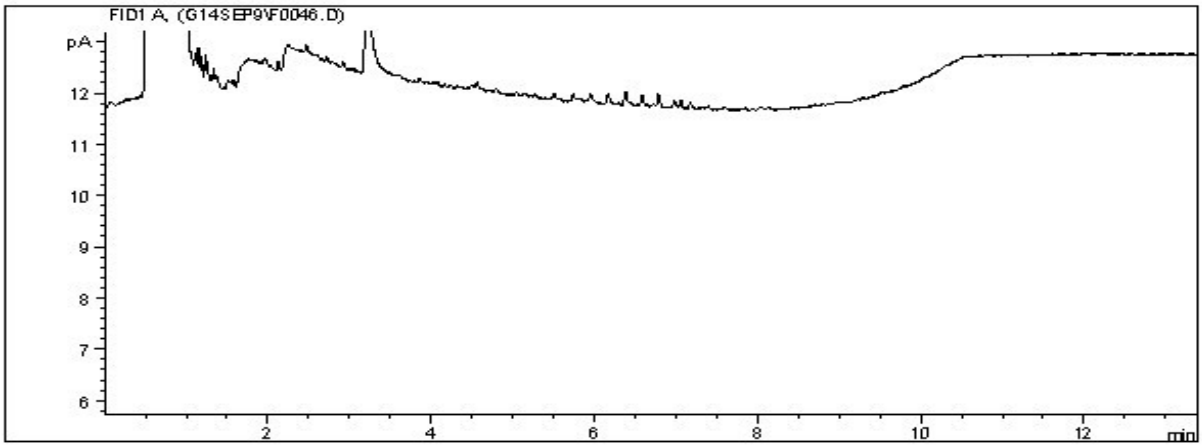
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

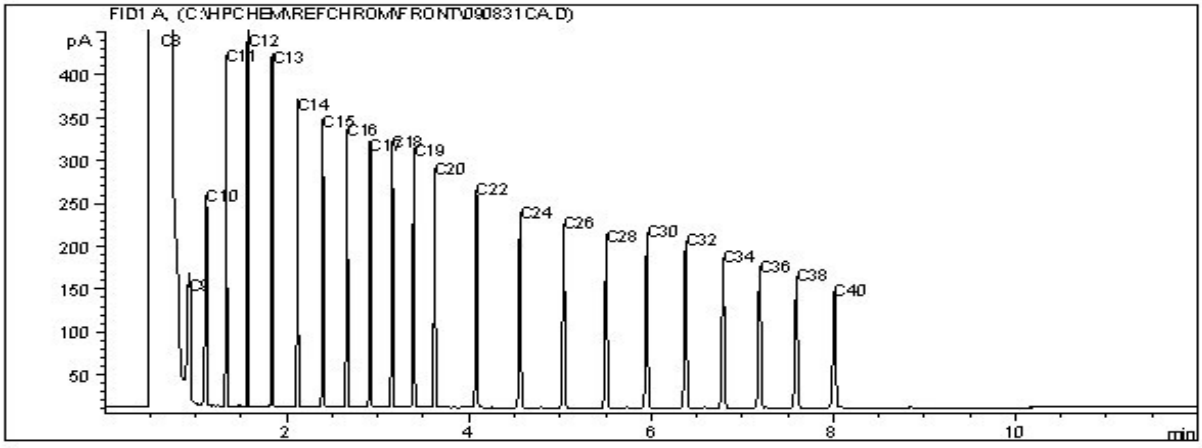
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57059

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09-TP1-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

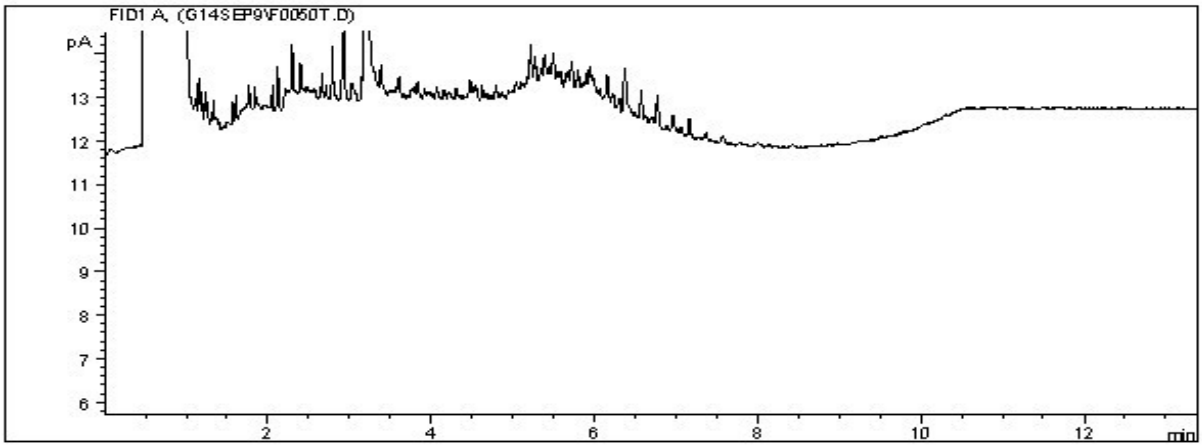
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

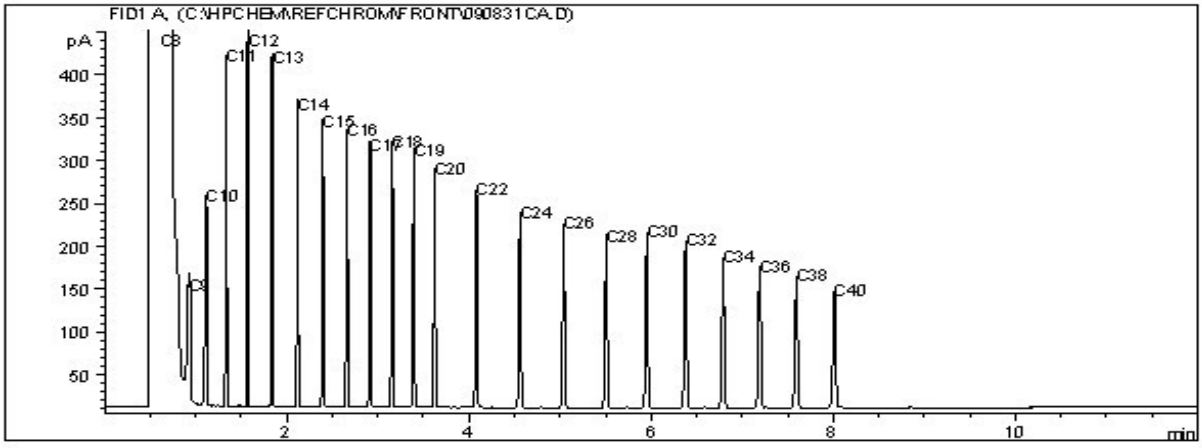
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57062

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09-TP2-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

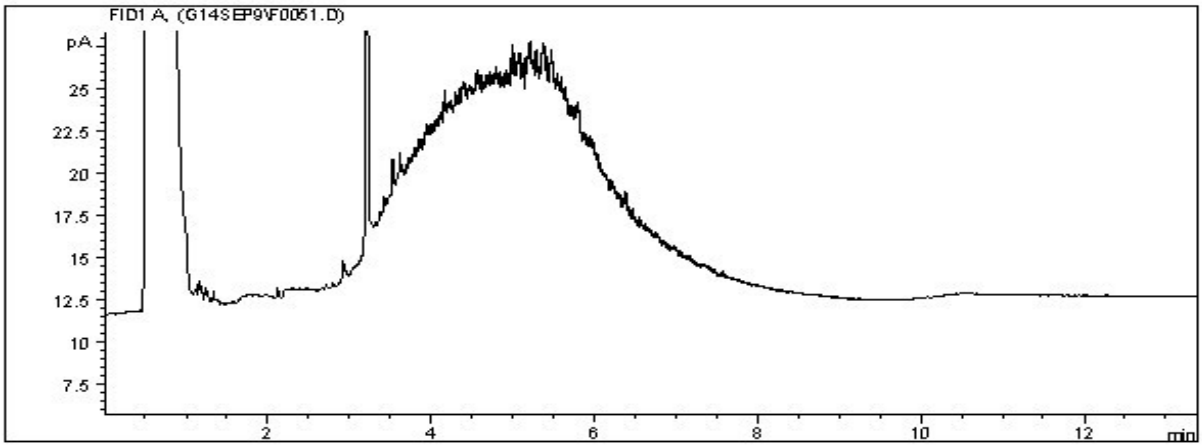
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

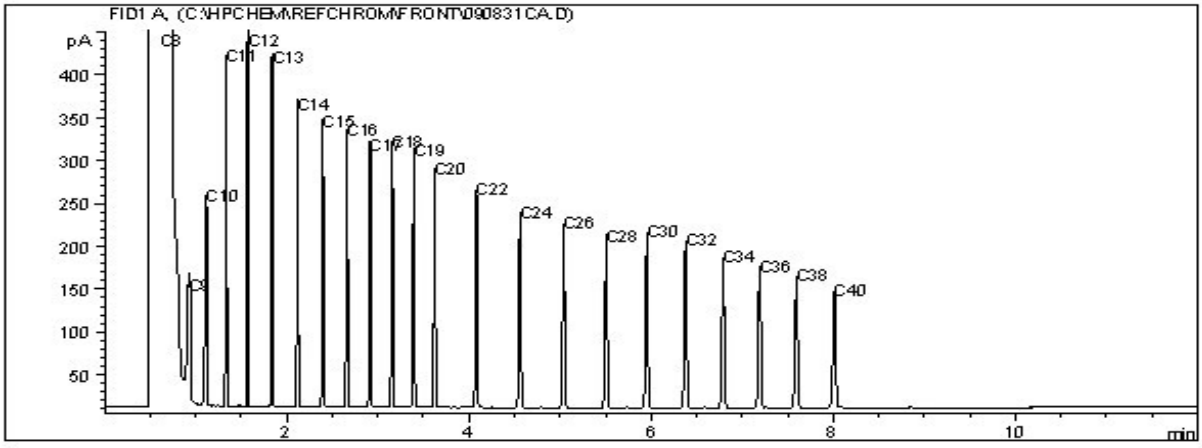
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57065

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09-TP3-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

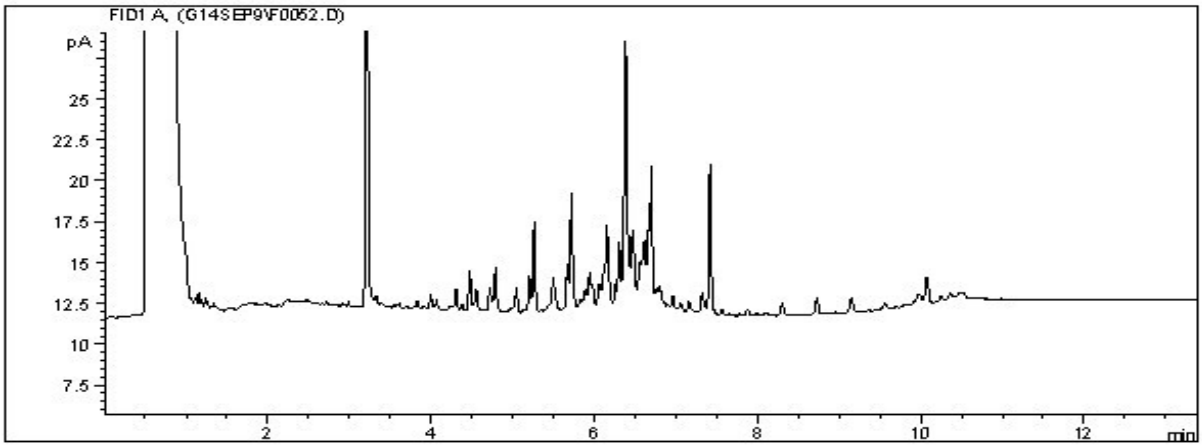
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

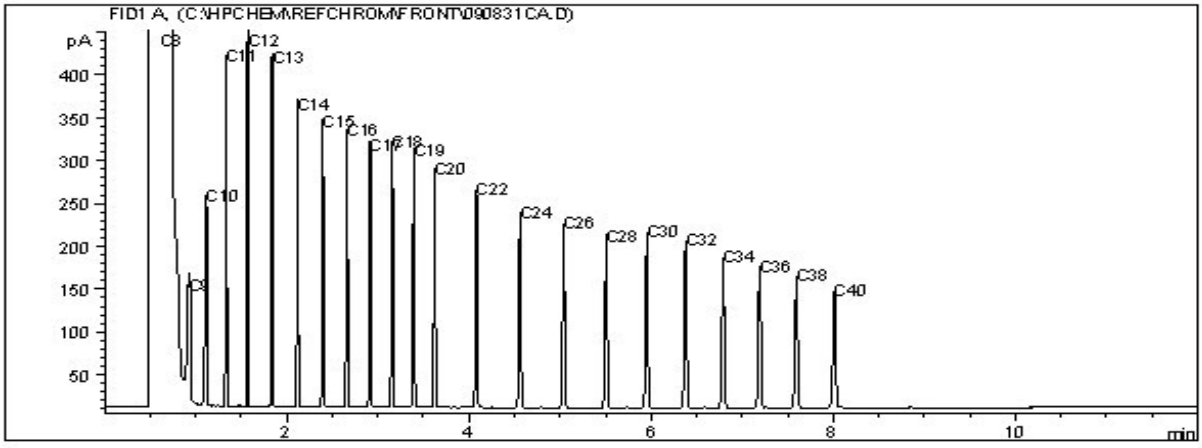
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57101

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP1-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

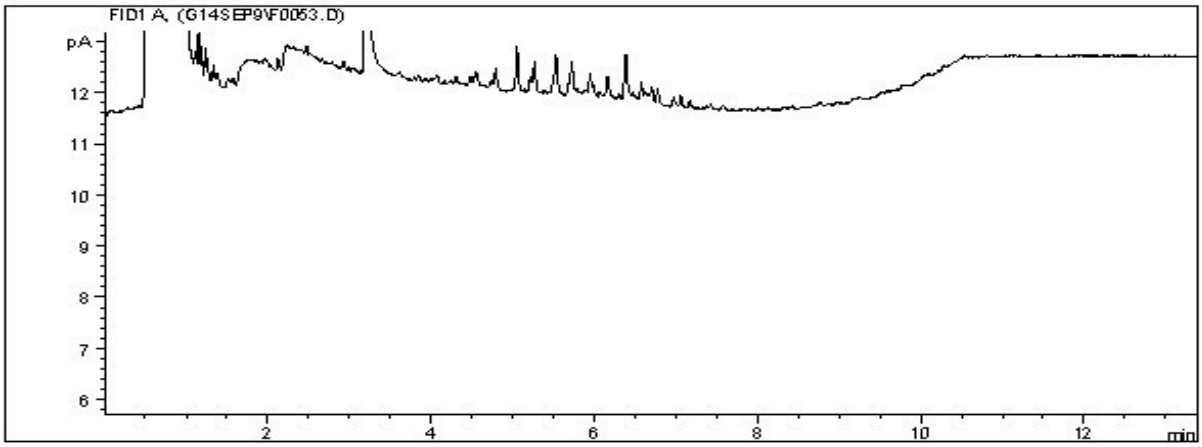
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

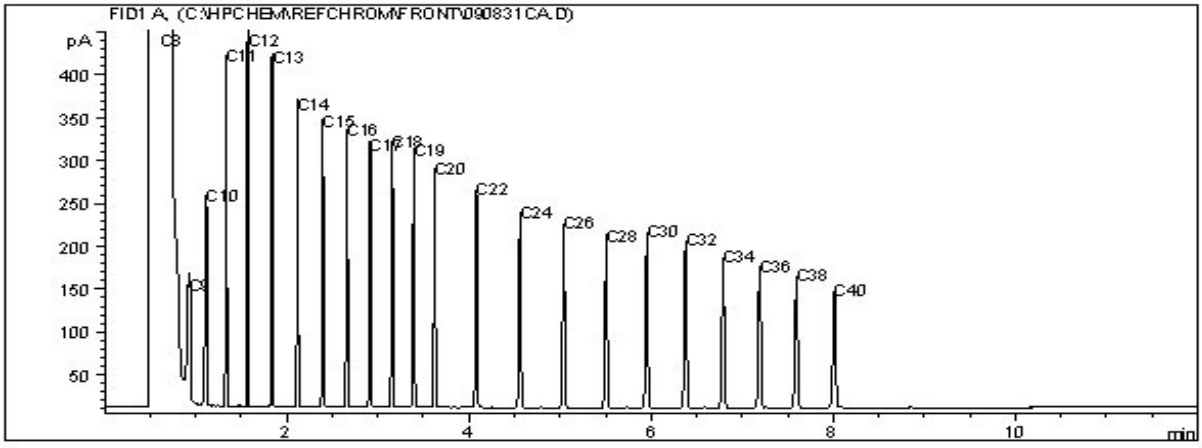
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57103

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP2-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

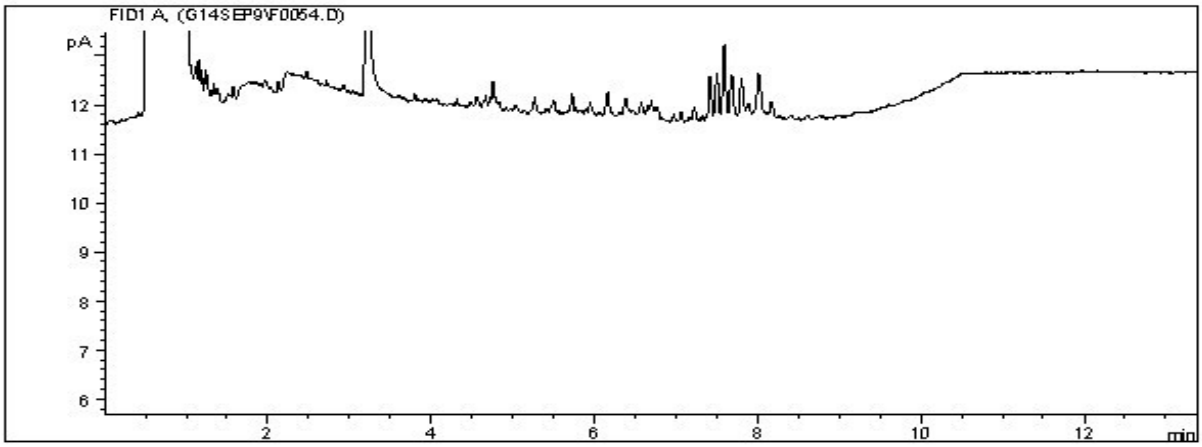
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

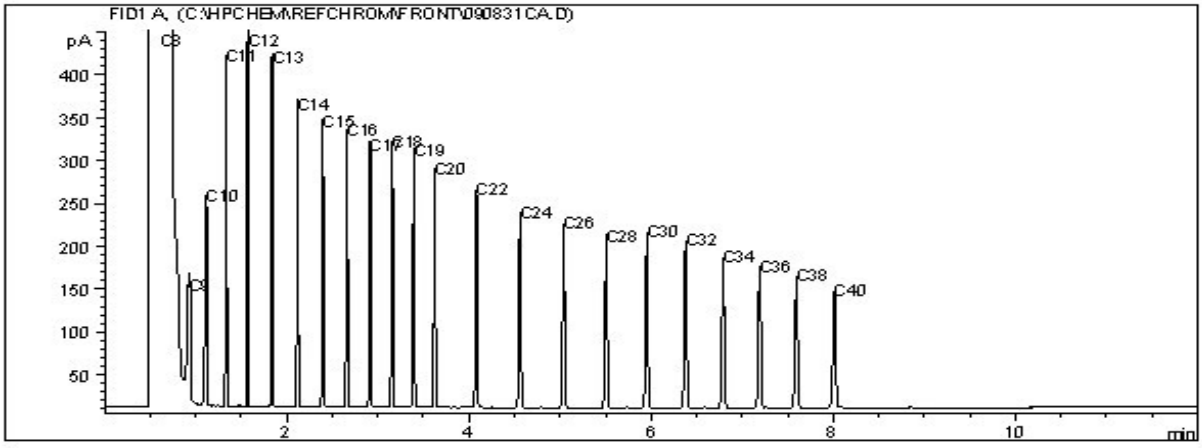
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57104

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP3-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

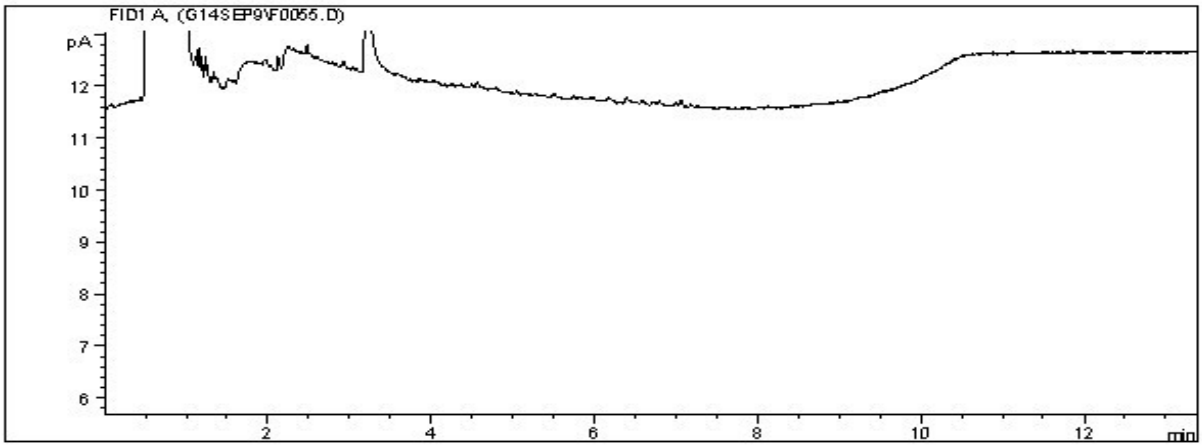
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

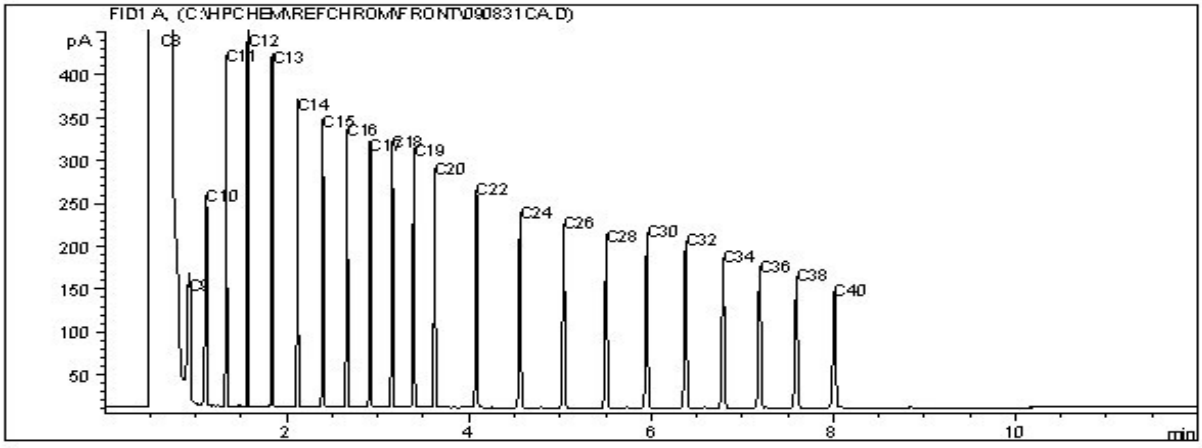
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57106

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP4

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

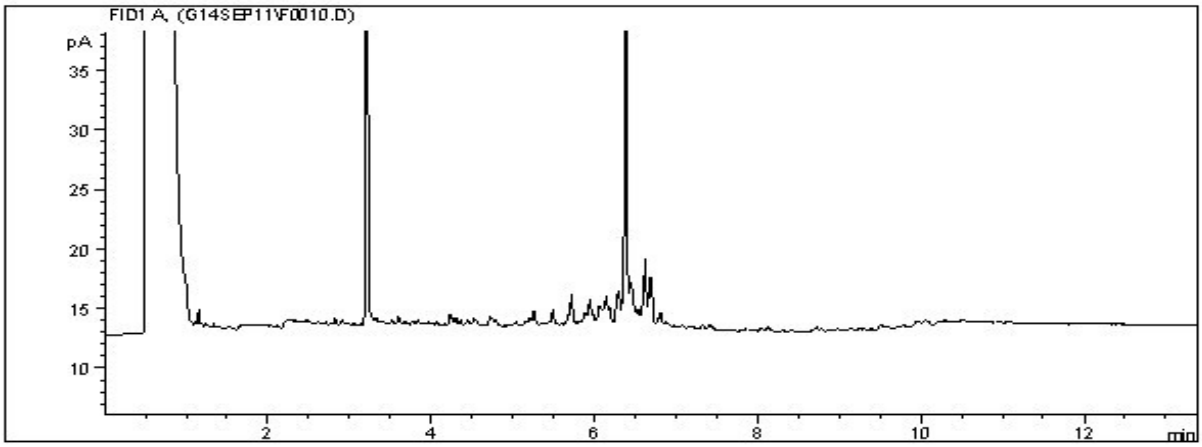
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

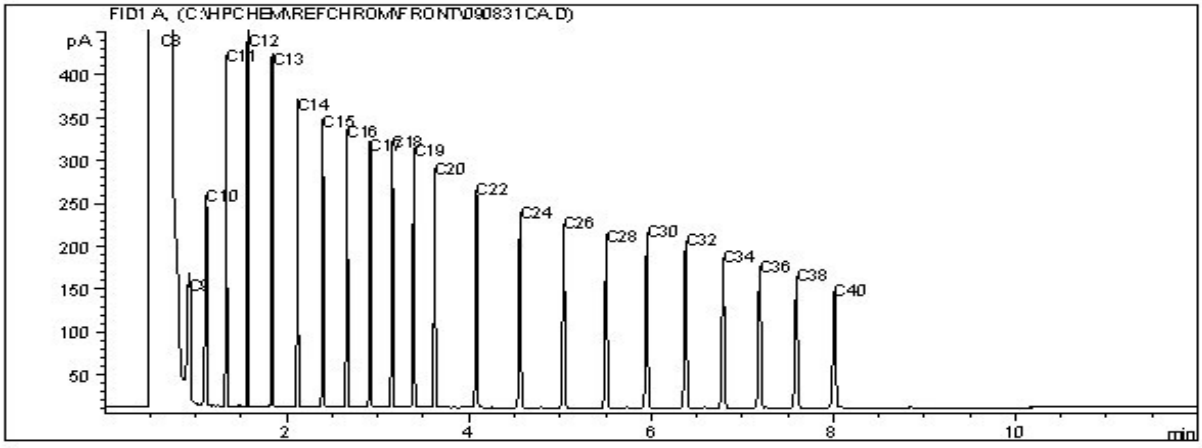
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57107

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP5-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

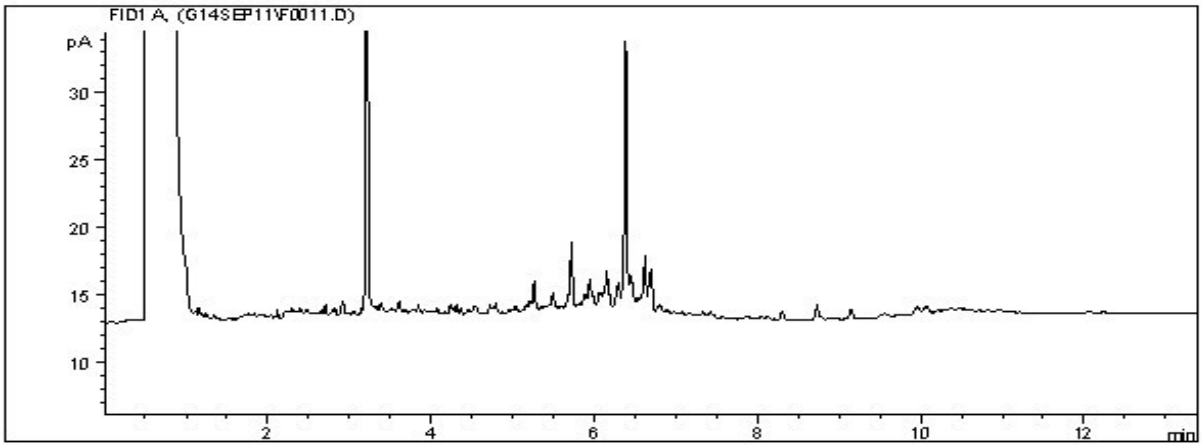
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

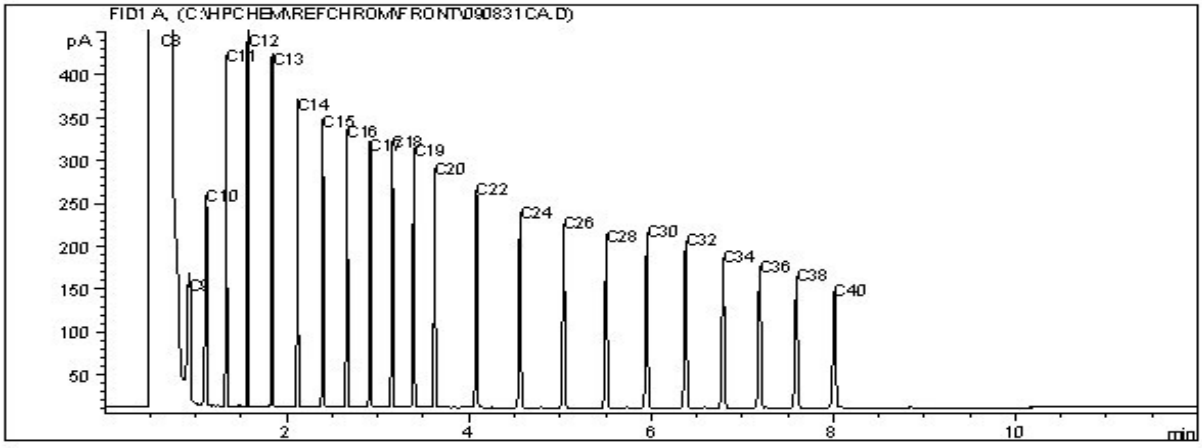
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57107

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP5-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

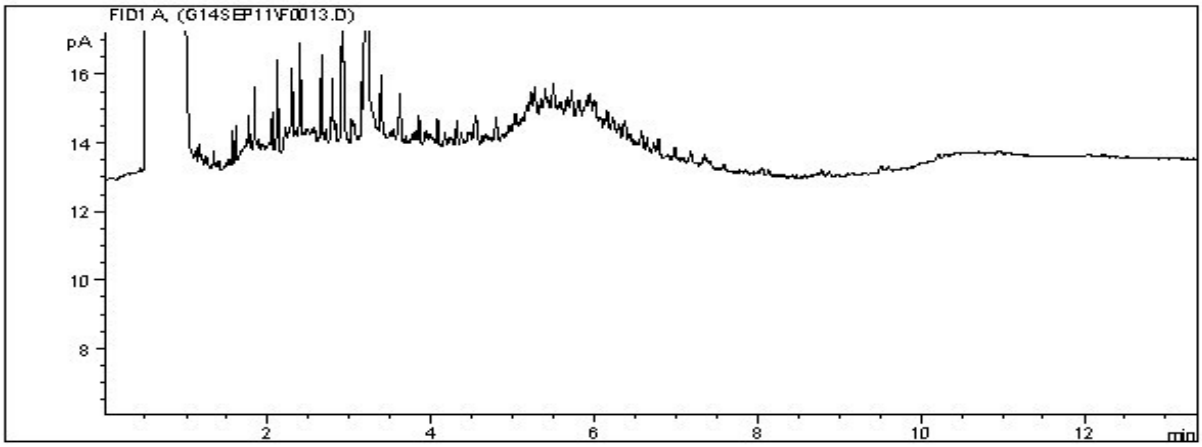
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

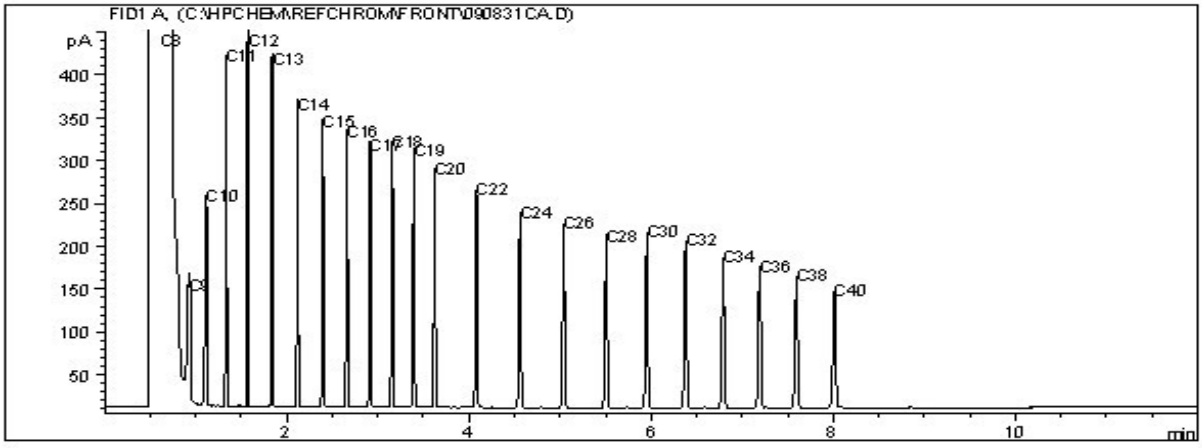
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57108

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP6-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

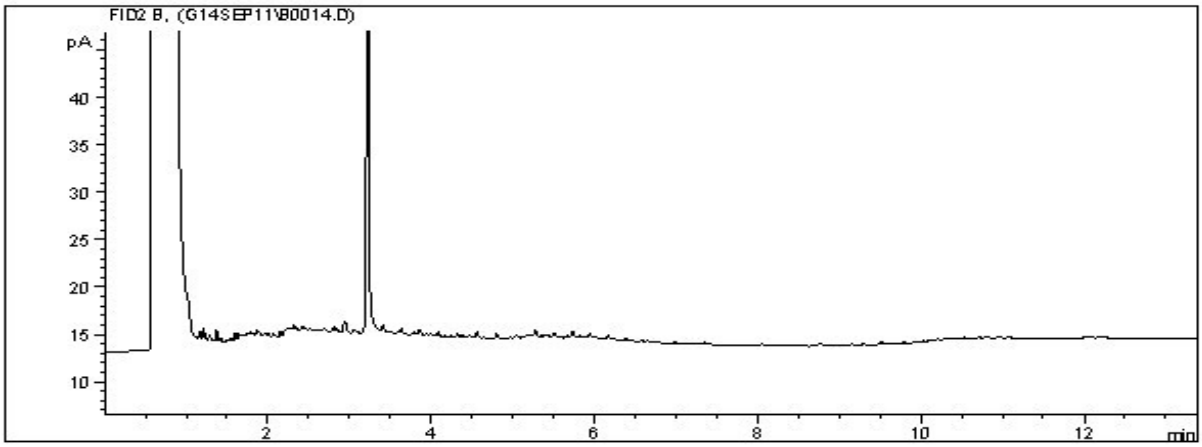
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

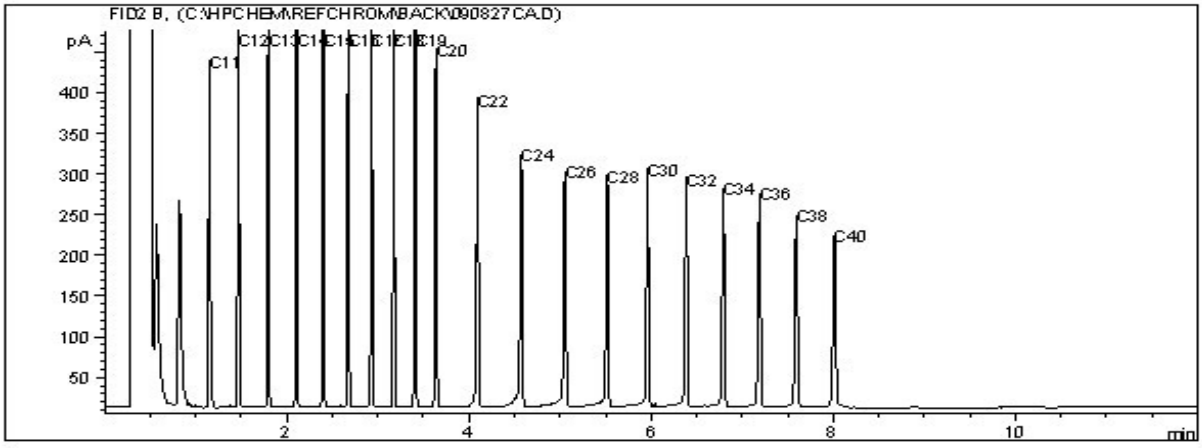
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57109

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP7-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

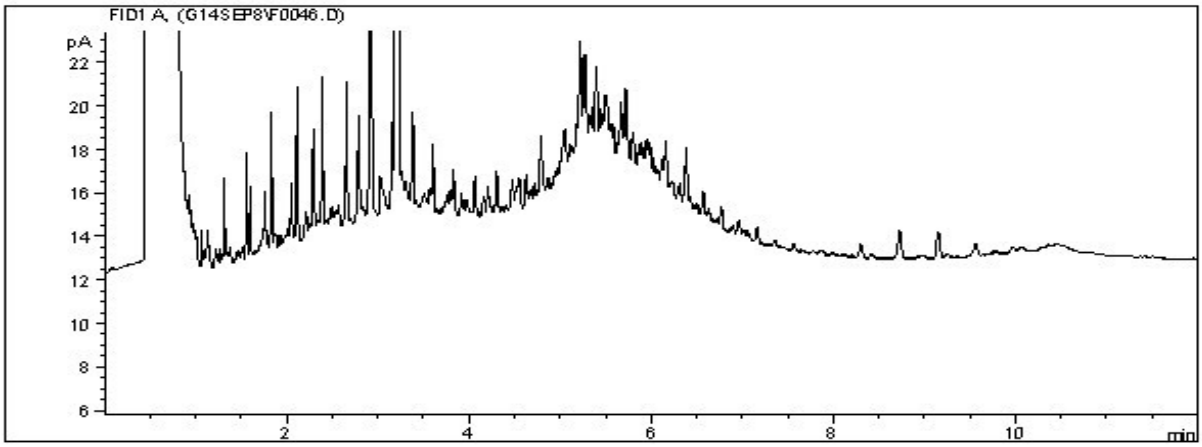
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

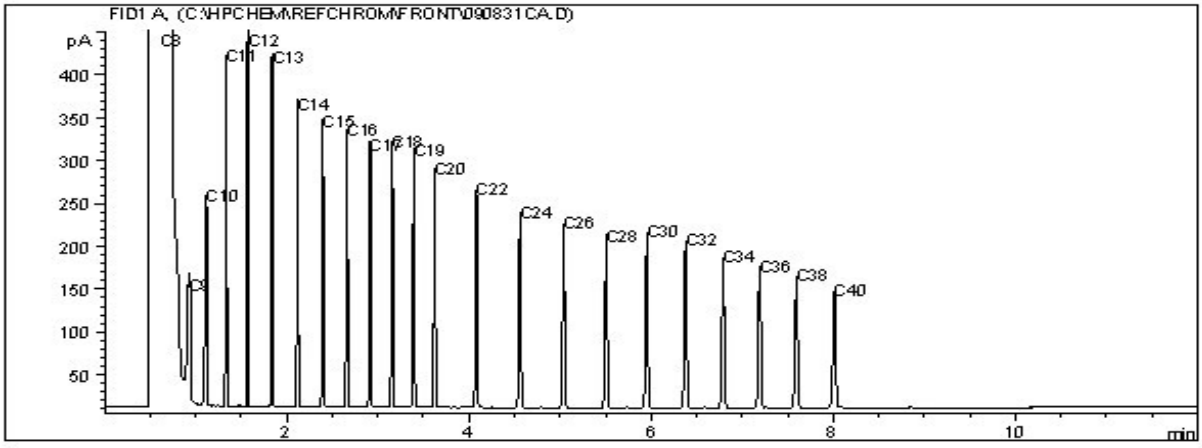
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57110

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP8-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

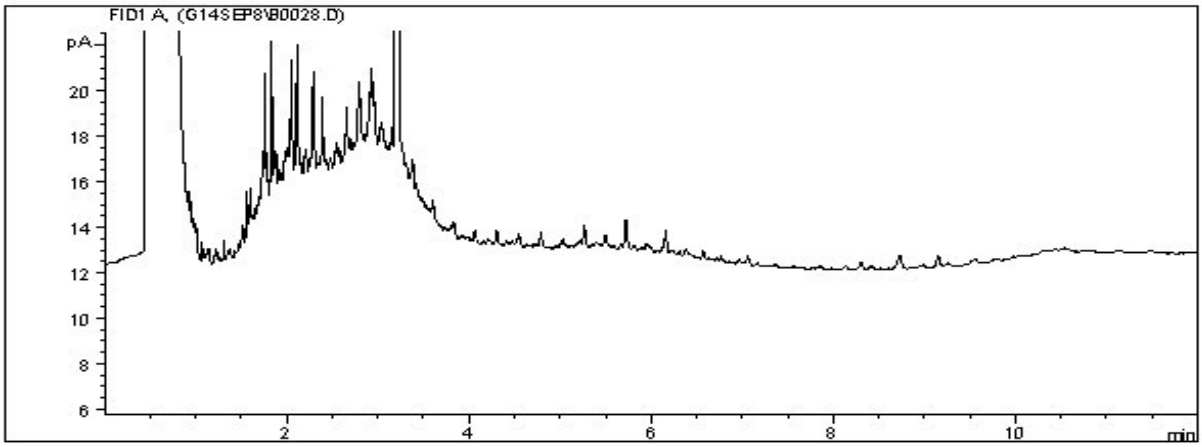
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

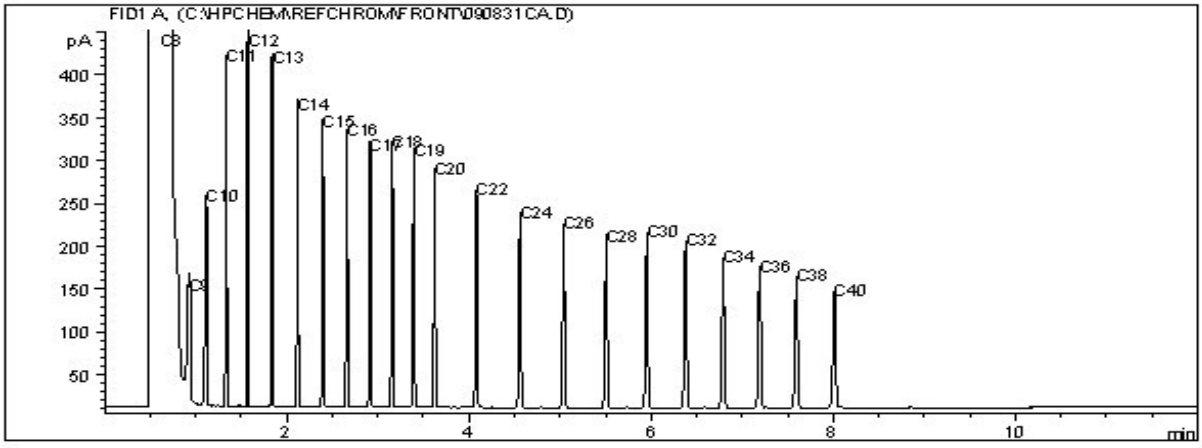
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57111

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP9-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

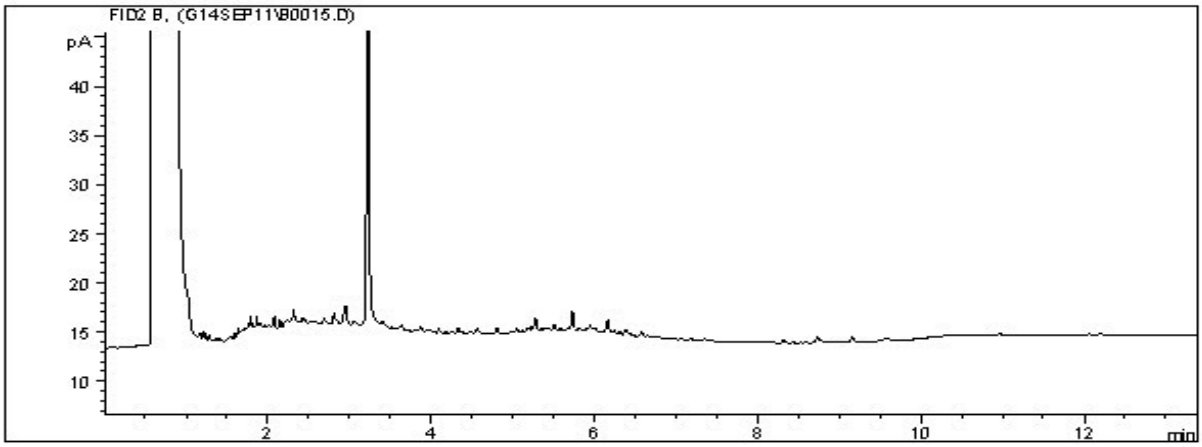
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

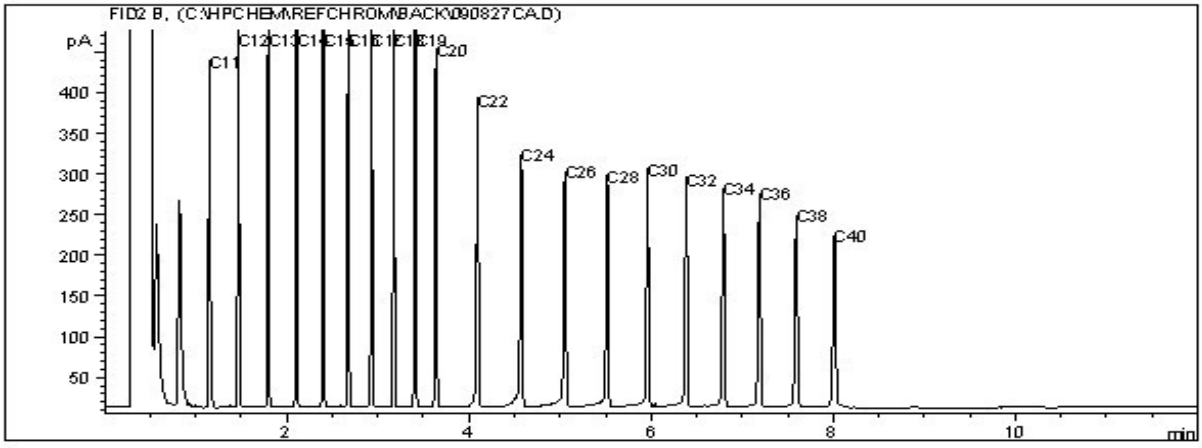
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57114

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP10-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

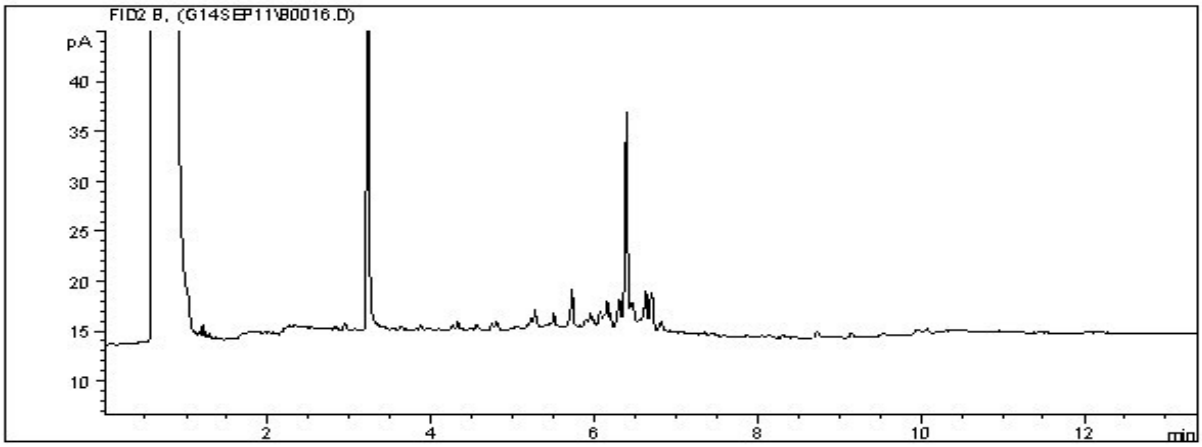
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

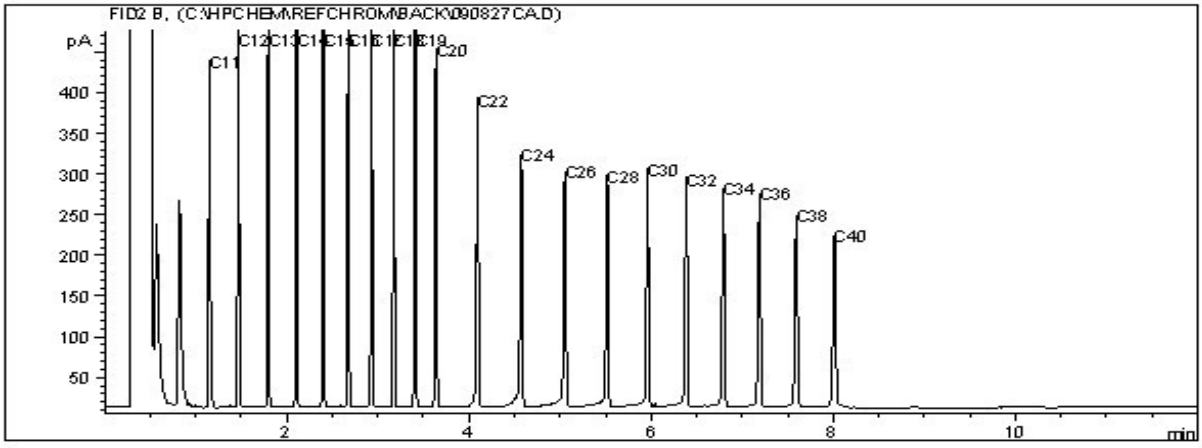
Report Date: 2009/09/22
Maxxam Job #: A947822
Maxxam Sample: Q57115

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: GR2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

Your Project #: A947822
Your C.O.C. #: n/a

Attention: Kimberley Webber
Maxxam Analytics
8577 Commerce Crt
Burnaby, BC
V5A 4N5

Report Date: 2009/09/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B6098
Received: 2009/09/04, 10:40

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
MOISTURE	8	N/A	2009/09/09	CAM SOP-00445	McKeague 2nd ed 1978
OC Pesticides (Selected) & PCB (1)	3	2009/09/09	2009/09/09	CAM SOP-00307	SW846 8081, 8082
Polychlorinated Biphenyl in Soil	7	2009/09/08	2009/09/08	CAM SOP-00309	SW846 8082

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

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DP3378	DP3379	DP3380	DP3381	DP3382		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**Q57104 \ 2-09-TP3-1**	**RDL**	**QC Batch**
Moisture	%	9.8	8.7	11	22	5.9	0.2	1933152

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		DP3383	DP3384	DP7276		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q57110 \ 2-09-TP8-1**	**Q57111 \ 2-09-TP9-1**	**Q56940 \ 3-09-4M-3**	**RDL**	**QC Batch**
Moisture	%	14	18	8.9	0.2	1933152

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3379	DP3380	DP3381		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**RDL**	**QC Batch**
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Total PCB	ug/g	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Surrogate Recovery (%)							
2,4,5,6-Tetrachloro-m-xylene	%	76	83	77	89	N/A	1931812
Decachlorobiphenyl	%	79	80	74	75	N/A	1931812

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3382	DP3384	DP7276		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q57104 \ 2-09-TP3-1**	**Q57111 \ 2-09-TP9-1**	**Q56940 \ 3-09-4M-3**	**RDL**	**QC Batch**
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Total PCB	ug/g	<0.01	<0.01	<0.01	0.01	1931812
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	70	68	65	N/A	1931812
Decachlorobiphenyl	%	75	69	70	N/A	1931812

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Hexachlorobutadiene	ug/g	<0.01	<0.01	<0.01	0.01	1933312
Aldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
b-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
d-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
g-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Chlordane (Total)	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD + p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE + p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT + p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
DDT+ Metabolites	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Dieldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan I	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan II	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan sulfate	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Total Endosulfan	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin aldehyde	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin ketone	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor epoxide	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Hexachlorobenzene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Lindane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Methoxychlor	ug/g	<0.008	<0.008	<0.008	0.008	1933312
Mirex	ug/g	<0.002	<0.002	<0.002	0.002	1933312

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
COC Number		n/a	n/a	n/a		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Octachlorostyrene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Toxaphene	ug/g	<0.08	<0.08	<0.08	0.08	1933312
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	73	70	73	N/A	1933312
Decachlorobiphenyl	%	90	91	93	N/A	1933312

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A947822

Package 1	8.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report

Maxxam Job Number: MA9B6098

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1931812	LGA	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2009/09/08		94	%	40 - 130
			Decachlorobiphenyl	2009/09/08		85	%	40 - 130
			Aroclor 1260	2009/09/08		112	%	30 - 130
			Total PCB	2009/09/08		112	%	30 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/08		100	%	40 - 130
			Decachlorobiphenyl	2009/09/08		83	%	40 - 130
			Aroclor 1260	2009/09/08		108	%	30 - 130
			Total PCB	2009/09/08		108	%	30 - 130
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/08		96	%	40 - 130
			Decachlorobiphenyl	2009/09/08		83	%	40 - 130
			Aroclor 1262	2009/09/08	<0.01		ug/g	
			Aroclor 1016	2009/09/08	<0.01		ug/g	
			Aroclor 1221	2009/09/08	<0.01		ug/g	
			Aroclor 1232	2009/09/08	<0.01		ug/g	
			Aroclor 1242	2009/09/08	<0.01		ug/g	
			Aroclor 1248	2009/09/08	<0.01		ug/g	
			Aroclor 1254	2009/09/08	<0.01		ug/g	
			Aroclor 1260	2009/09/08	<0.01		ug/g	
			Aroclor 1268	2009/09/08	<0.01		ug/g	
			Total PCB	2009/09/08	<0.01		ug/g	
		RPD	Aroclor 1262	2009/09/08	NC		%	50
			Aroclor 1016	2009/09/08	NC		%	50
			Aroclor 1221	2009/09/08	NC		%	50
			Aroclor 1232	2009/09/08	NC		%	50
			Aroclor 1242	2009/09/08	NC		%	50
			Aroclor 1248	2009/09/08	NC		%	50
			Aroclor 1254	2009/09/08	NC		%	50
			Aroclor 1260	2009/09/08	NC		%	50
			Aroclor 1268	2009/09/08	NC		%	50
			Total PCB	2009/09/08	NC		%	50
1933152	FF	RPD	Moisture	2009/09/09	0.6		%	50
1933312	DH	Matrix Spike	2,4,5,6-Tetrachloro-m-xylene	2009/09/09		45	%	40 - 130
			Decachlorobiphenyl	2009/09/09		87	%	40 - 130
			Hexachlorobutadiene	2009/09/09		34	%	N/A
			Aldrin	2009/09/09		68	%	40 - 130
			a-BHC	2009/09/09		54	%	40 - 130
			b-BHC	2009/09/09		75	%	40 - 130
			d-BHC	2009/09/09		89	%	40 - 130
			a-Chlordane	2009/09/09		79	%	40 - 130
			g-Chlordane	2009/09/09		86	%	40 - 130
			o,p-DDD	2009/09/09		89	%	40 - 130
			p,p-DDD	2009/09/09		93	%	40 - 130
			o,p-DDE	2009/09/09		81	%	40 - 130
			p,p-DDE	2009/09/09		86	%	40 - 130
			o,p-DDT	2009/09/09		85	%	40 - 130
			p,p-DDT	2009/09/09		99	%	40 - 130
			Dieldrin	2009/09/09		90	%	40 - 130
			Endosulfan I	2009/09/09		79	%	40 - 130
			Endosulfan II	2009/09/09		95	%	40 - 130
			Endosulfan sulfate	2009/09/09		92	%	40 - 130
			Endrin	2009/09/09		85	%	40 - 130
			Endrin aldehyde	2009/09/09		77	%	40 - 130
			Endrin ketone	2009/09/09		99	%	40 - 130
			Heptachlor	2009/09/09		59	%	40 - 130
			Heptachlor epoxide	2009/09/09		71	%	40 - 130

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA9B6098

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1933312	DH	Matrix Spike	Hexachlorobenzene	2009/09/09		53	%	20 - 130
			Lindane	2009/09/09		71	%	40 - 130
			Methoxychlor	2009/09/09		87	%	40 - 130
			Mirex	2009/09/09		87	%	40 - 130
			Octachlorostyrene	2009/09/09		76	%	40 - 130
		Spiked Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/09		67	%	40 - 130
			Decachlorobiphenyl	2009/09/09		84	%	40 - 130
			Hexachlorobutadiene	2009/09/09		73	%	N/A
			Aldrin	2009/09/09		79	%	40 - 130
			a-BHC	2009/09/09		69	%	40 - 130
			b-BHC	2009/09/09		79	%	40 - 130
			d-BHC	2009/09/09		94	%	40 - 130
			a-Chlordane	2009/09/09		83	%	40 - 130
			g-Chlordane	2009/09/09		89	%	40 - 130
			o,p-DDD	2009/09/09		90	%	40 - 130
			p,p-DDD	2009/09/09		104	%	40 - 130
			o,p-DDE	2009/09/09		87	%	40 - 130
			p,p-DDE	2009/09/09		87	%	40 - 130
			o,p-DDT	2009/09/09		97	%	40 - 130
			p,p-DDT	2009/09/09		114	%	40 - 130
			Dieldrin	2009/09/09		95	%	40 - 130
			Endosulfan I	2009/09/09		85	%	40 - 130
			Endosulfan II	2009/09/09		101	%	40 - 130
			Endosulfan sulfate	2009/09/09		95	%	40 - 130
			Endrin	2009/09/09		92	%	40 - 130
			Endrin aldehyde	2009/09/09		112	%	40 - 130
			Endrin ketone	2009/09/09		100	%	40 - 130
			Heptachlor	2009/09/09		68	%	40 - 130
			Heptachlor epoxide	2009/09/09		74	%	40 - 130
			Hexachlorobenzene	2009/09/09		67	%	20 - 130
			Lindane	2009/09/09		87	%	40 - 130
			Methoxychlor	2009/09/09		94	%	40 - 130
			Mirex	2009/09/09		83	%	40 - 130
			Octachlorostyrene	2009/09/09		90	%	40 - 130
		RPD	Toxaphene	2009/09/09	NC		%	50
		Method Blank	2,4,5,6-Tetrachloro-m-xylene	2009/09/09		68	%	40 - 130
			Decachlorobiphenyl	2009/09/09		89	%	40 - 130
			Hexachlorobutadiene	2009/09/09	<0.01		ug/g	
			Aldrin	2009/09/09	<0.002		ug/g	
			a-BHC	2009/09/09	<0.002		ug/g	
			b-BHC	2009/09/09	<0.002		ug/g	
			d-BHC	2009/09/09	<0.002		ug/g	
			a-Chlordane	2009/09/09	<0.002		ug/g	
			g-Chlordane	2009/09/09	<0.002		ug/g	
			Chlordane (Total)	2009/09/09	<0.002		ug/g	
			o,p-DDD	2009/09/09	<0.002		ug/g	
			p,p-DDD	2009/09/09	<0.002		ug/g	
			o,p-DDD + p,p-DDD	2009/09/09	<0.002		ug/g	
			o,p-DDE	2009/09/09	<0.002		ug/g	
			p,p-DDE	2009/09/09	<0.002		ug/g	
			o,p-DDE + p,p-DDE	2009/09/09	<0.002		ug/g	
			o,p-DDT	2009/09/09	<0.002		ug/g	
			p,p-DDT	2009/09/09	<0.002		ug/g	
			o,p-DDT + p,p-DDT	2009/09/09	<0.002		ug/g	
			DDT+ Metabolites	2009/09/09	<0.002		ug/g	

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA9B6098

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1933312	DH	Method Blank	Dieldrin	2009/09/09	<0.002		ug/g	
			Endosulfan I	2009/09/09	<0.002		ug/g	
			Endosulfan II	2009/09/09	<0.002		ug/g	
			Endosulfan sulfate	2009/09/09	<0.002		ug/g	
			Total Endosulfan	2009/09/09	<0.002		ug/g	
			Endrin	2009/09/09	<0.002		ug/g	
			Endrin aldehyde	2009/09/09	<0.002		ug/g	
			Endrin ketone	2009/09/09	<0.002		ug/g	
			Heptachlor	2009/09/09	<0.002		ug/g	
			Heptachlor epoxide	2009/09/09	<0.002		ug/g	
			Hexachlorobenzene	2009/09/09	<0.002		ug/g	
			Lindane	2009/09/09	<0.002		ug/g	
			Methoxychlor	2009/09/09	<0.008		ug/g	
			Mirex	2009/09/09	<0.002		ug/g	
			Octachlorostyrene	2009/09/09	<0.002		ug/g	
			Toxaphene	2009/09/09	<0.08		ug/g	
		RPD	Hexachlorobutadiene	2009/09/09	NC		%	50
			Aldrin	2009/09/09	NC		%	50
			a-BHC	2009/09/09	NC		%	50
			b-BHC	2009/09/09	NC		%	50
			d-BHC	2009/09/09	NC		%	50
			a-Chlordane	2009/09/09	NC		%	50
			g-Chlordane	2009/09/09	NC		%	50
			Chlordane (Total)	2009/09/09	NC		%	50
			o,p-DDD	2009/09/09	NC		%	50
			p,p-DDD	2009/09/09	NC		%	50
			o,p-DDD + p,p-DDD	2009/09/09	NC		%	50
			o,p-DDE	2009/09/09	NC		%	50
			p,p-DDE	2009/09/09	NC		%	50
			o,p-DDE + p,p-DDE	2009/09/09	NC		%	50
			o,p-DDT	2009/09/09	NC		%	50
			p,p-DDT	2009/09/09	NC		%	50
			o,p-DDT + p,p-DDT	2009/09/09	NC		%	50
			DDT+ Metabolites	2009/09/09	NC		%	50
			Dieldrin	2009/09/09	NC		%	50
			Endosulfan I	2009/09/09	NC		%	50
			Endosulfan II	2009/09/09	NC		%	50
			Endosulfan sulfate	2009/09/09	NC		%	50
			Total Endosulfan	2009/09/09	NC		%	50
			Endrin	2009/09/09	NC		%	50
			Endrin aldehyde	2009/09/09	NC		%	50
			Endrin ketone	2009/09/09	NC		%	50
			Heptachlor	2009/09/09	NC		%	50
			Heptachlor epoxide	2009/09/09	NC		%	50
			Hexachlorobenzene	2009/09/09	NC		%	50
			Lindane	2009/09/09	NC		%	50
			Methoxychlor	2009/09/09	NC		%	50
			Mirex	2009/09/09	NC		%	50
			Octachlorostyrene	2009/09/09	NC		%	50

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a

Maxxam Analytics
Attention: Kimberley Webber
Client Project #: A947822
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: MA9B6098

reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B6098

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

CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst

CRISTINA CARRIERE, 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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: A947822
Your C.O.C. #: na

Attention: Kimberley Webber
Maxxam Analytics
8577 Commerce Crt
Burnaby, BC
V5A 4N5

Report Date: 2009/09/18

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B7918
Received: 2009/09/09, 13:17

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PFOS and PFOA in soil	5	2009/09/11	2009/09/16	CAM SOP-00894	In house method

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

Encryption Key

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DQ3180		DQ3181		
Sampling Date		2009/08/29		2009/08/29		
	Units	**Q56933-03R\3-09-1-1**	**QC Batch**	**Q56937-01R\3-09-3-2**	**RDL**	**QC Batch**
Miscellaneous Parameters						
Perfluoro-1-Octanesulfonate (PFOS)	ng/g	830	1942158	<25	25	1936161
Perfluoro-n-Octanoic Acid (PFOA)	ng/g	<2.5	1936161	5.8	2.5	1936161

Maxxam ID		DQ3182	DQ3183		DQ3184		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		
	Units	**Q56940-03R\3-09-4M-3**	**Q56941-03R\3-09-DUP-1**	**QC Batch**	**Q56947-03R\3-09-6M-3**	**RDL**	**QC Batch**
Miscellaneous Parameters							
Perfluoro-1-Octanesulfonate (PFOS)	ng/g	620	820	1936161	53	25	1942158
Perfluoro-n-Octanoic Acid (PFOA)	ng/g	9.6	3.2	1936161	5.5	2.5	1936161

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

PFOS and PFOA in soil: The recovery of PFOS in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.
Duplicate results exceeded RPD acceptance criteria for PFOS. This may be due to sample heterogeneity.

Sample DQ3180, PFOS and PFOA in soil: Test repeated.
PFOS and PFOA in soil: The recovery of PFOS in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.

Sample DQ3184, PFOS and PFOA in soil: Test repeated.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1936161	Perfluoro-1-Octanesulfonate (PFOS)	2009/09/16	NC	N/A	113	N/A	<25	ng/g		
1936161	Perfluoro-n-Octanoic Acid (PFOA)	2009/09/16	112	N/A	88	N/A	<2.5	ng/g	NC	20
1942158	Perfluoro-1-Octanesulfonate (PFOS)	2009/09/18	N/C	N/A	108	N/A	<25	ng/g	NC	20

N/A = Not Applicable
RPD = Relative Percent Difference
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B7918

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

ADAM ROBINSON, Technical Service

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1748-0901
Site: CAMBRIDGE BAY
Your C.O.C. #: 80795, 80794, 80792, 80793, 80791, 80785, 80786, 80787

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2009/10/06
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A947822
Received: 2009/09/02, 15:50

Sample Matrix: Soil
Samples Received: 47

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/MTBE Soil LH, VH, F1 SIM/MS	10	2009/09/04	2009/09/05	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	8	2009/09/04	2009/09/06	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	1	2009/09/04	2009/09/07	BRN-SOP-0304 R10.0	EPA SW846 8260B
Volatile F1-BTEX	1	N/A	2009/09/07		
Volatile F1-BTEX	17	N/A	2009/09/08		
Volatile F1-BTEX	21	N/A	2009/09/09		
Volatile F1-BTEX	3	N/A	2009/09/10		
CCME Hydrocarbons (F2-F4 in soil)	26	2009/09/04	2009/09/08	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	11	2009/09/04	2009/09/09	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	5	2009/09/04	2009/09/11	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons-SilicaGel (F4 in soil)	3	2009/09/22	2009/09/22	ORG420 Rev. 0.0	CCME Soil Tier1
Ethylene, Di, Tri & Tetraethylene glycol	1	2009/09/09	2009/09/10	BRN SOP-00307R6	Based on EPA 8015B
Elements by ICPMS (total)	8	2009/09/08	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	17	2009/09/08	2009/09/10	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	2	2009/09/09	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Particulate Mesh 200 Ø	3	N/A	2009/09/08	NA	NA
Moisture	42	N/A	2009/09/05	BRN SOP-00321 R5.0	Ont MOE -E 3139
PAH in Soil by GC/MS (SIM)	5	2009/09/04	2009/09/05	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	3	2009/09/04	2009/09/06	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	1	2009/09/04	2009/09/08	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	7	2009/09/04	2009/09/09	BRN SOP-00332 R9.0	Based on EPA 8270D
Total LMW, HMW, Total PAH Calc	8	N/A	2009/09/08		
Total LMW, HMW, Total PAH Calc	1	N/A	2009/09/09		
Total LMW, HMW, Total PAH Calc	7	N/A	2009/09/10		
pH (2:1 DI Water Extract) Ø	4	2009/09/09	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) Ø	4	2009/09/10	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) Ø	19	2009/09/11	2009/09/12	BRN SOP-00266 R6.0	Carter, SSMA 16.2
CCME F1 C6-C10 in Soil by GC/FID Ø	8	2009/09/04	2009/09/06		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID Ø	12	2009/09/04	2009/09/07		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID Ø	3	2009/09/04	2009/09/10		Based on EPA SW8260B
Sublet (Inorganics) Ø	5	N/A	2009/09/16		
VOCs in Soil by HS GC/MS	7	2009/09/04	2009/09/06	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	15	2009/09/04	2009/09/07	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	1	2009/09/04	2009/09/09	BRN SOP-00311 R8.0	Based on EPA 8260B
Pesticides, OC Soil Subcontract Ø	3	2009/09/11	2009/09/09		
PCB Soil Subcontract Ø	7	2009/09/14	2009/09/08		
PCB Soil Subcontract Ø	1	2009/10/05	2009/10/01		

* Results relate only to the items tested.

(1) This test was performed by Maxxam Ontario (From Burnaby)
(2) SCC/CAEAL
(3) SCC/CAEAL/NELAC

Encryption Key

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

KIMBERLEY WEBBER, BBY Customer Service
Email: kim.webber@maxxamanalytics.com
Phone# (604) 444-4808 Ext:259

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q56933	Q56934		Q56935		Q56937	Q56939	Q56940	Q56941	Q56943		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**3-09-1-1**	**3-09-2-1**	**QC Batch**	**3-09-2-2**	**QC Batch**	**3-09-3-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-DUP-1**	**3-09-5M-2**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A	ATTACHED		3159742			ATTACHED		ATTACHED	ATTACHED		N/A	3159742
Physical Properties													
<200 mesh (>.075 mm)	%		43.7	3398902				59.3				0.1	3398902
>200 mesh (<.075 mm)	%		56.3	3398902				40.8				0.1	3398902
Moisture	%	5.6		3395524	7.3	3395624	6.5	8.4	8.9	5.8	5.3	0.3	3395524

Maxxam ID		Q56947	Q56948	Q56949		Q56950	Q56951		Q56978	Q56979	Q56980		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/30	2009/08/30	2009/08/30		
	Units	**3-09-6M-3**	**3-09-DUP-2**	**1-09-1M-1**	**QC Batch**	**1-09-2M-1**	**1-09-3M-1**	**QC Batch**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A	ATTACHED			3159742	ATTACHED		2627069			ATTACHED	N/A	3145118
Physical Properties													
<200 mesh (>.075 mm)	%				3398902						36.4	0.1	3398902
>200 mesh (<.075 mm)	%				3398902						63.6	0.1	3398902
Moisture	%	10	9.5	7.4	3395524	9.1	9.5	3395524	11	8.6	10	0.3	3395624

Maxxam ID		Q56981	Q56982	Q56983	Q56984	Q56985	Q56986	Q56987	Q56988	Q56989		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-DUP-1**	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**4A-09-4-1**	**4A-09-5-1**	**4A-09-6-1**	**4A-09-6-2**	**RDL**	**QC Batch**
Physical Properties												
Moisture	%	11	11	8.7	12	11	9.9	9.7	5.6	11	0.3	3395624

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q57022	Q57023		Q57029	Q57032	Q57059	Q57062	Q57065	Q57100	Q57101		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-7-1**	**4A-09-8-1**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-1**	**2-09-TP1-2**	**RDL**	**QC Batch**
Parameter													
Subcontract Parameter	N/A			3145118						ATTACHED		N/A	3145118
Physical Properties													
Moisture	%	8.8	12	3395624	6.2	11	19	21	13		15	0.3	3395627

Maxxam ID		Q57103		Q57104	Q57106	Q57107	Q57108	Q57109		
Sampling Date		2009/08/29		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP2-2**	**QC Batch**	**2-09-TP3-1**	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**RDL**	**QC Batch**
Parameter										
Subcontract Parameter	N/A	ATTACHED	2627069	ATTACHED					N/A	3145118
Physical Properties										
Moisture	%	24	3395627	16	22	8.9	17	11	0.3	3395627

Maxxam ID		Q57110	Q57110		Q57111	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP8-1**	**2-09-TP8-1 Lab-Dup**	**QC Batch**	**2-09-TP9-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Parameter									
Subcontract Parameter	N/A	ATTACHED		2627069	ATTACHED			N/A	3145118
Physical Properties									
Moisture	%	9.3	10	3395627	32	27	2.4	0.3	3395627

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q56933	Q56935	Q56937	Q56939	Q56940	Q56941	Q56943	Q56947		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**3-09-1-1**	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-DUP-1**	**3-09-5M-2**	**3-09-6M-3**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon											
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	16	27	<10	1700	850	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	220	<10	<10	13	17	430	30	160	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	190	<10	<10	<10	<10	190	<10	<10	10	3398109
Reached Baseline at C50	mg/kg	NO	YES	YES	YES	YES	YES	YES	YES	N/A	3398109
OIL & GREASE											
F4SG (Heavy Hydrocarbons-SilicaGel)	mg/kg	3300								100	3437023
Surrogate Recovery (%)											
O-TERPHENYL (sur.)	%	89	92	102	101	100	85	97	100		3398109

Maxxam ID		Q56948	Q56949	Q56950	Q56951		Q56978	Q56979	Q56980		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/30	2009/08/30	2009/08/30		
	Units	**3-09-DUP-2**	**1-09-1M-1**	**1-09-2M-1**	**1-09-3M-1**	**QC Batch**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon											
F2 (C10-C16 Hydrocarbons)	mg/kg	860	<10	<10	<10	3400091	<10	<10	<10	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	180	<10	<10	<10	3400091	<10	10	<10	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	<10	3400091	<10	<10	<10	10	3398109
Reached Baseline at C50	mg/kg	YES	YES	YES	YES	3400091	YES	YES	YES	N/A	3398109
Surrogate Recovery (%)											
O-TERPHENYL (sur.)	%	106	100	97	102	3400091	76	110	105		3398109

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q56981	Q56981		Q56982	Q56983	Q56984	Q56985		Q56986		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30		
	Units	**1-09-DUP-1**	**1-09-DUP-1 Lab-Dup**	**QC Batch**	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**QC Batch**	**4A-09-4-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	740	<10	3400091	3700	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	14	3405247	22	<10	140	<10	3400091	520	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	<10	<10	3400091	11	10	3398109
Reached Baseline at C50	mg/kg	YES	YES	3405247	YES	YES	YES	YES	3400091	YES	N/A	3398109
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	79	69	3405247	106	105	93	97	3400091	69		3398109

Maxxam ID		Q56987	Q56988	Q56989	Q56989	Q57022		Q57023	Q57029	Q57032		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-5-1**	**4A-09-6-1**	**4A-09-6-2**	**4A-09-6-2 Lab-Dup**	**4A-09-7-1**	**QC Batch**	**4A-09-8-1**	**5-09TP4-3**	**6-09TP1-3**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	12000	<10	<10		<10	3398109	150	<10	<10	10	3405247
F3 (C16-C34 Hydrocarbons)	mg/kg	6400	110	27		<10	3398109	120	<10	35	10	3405247
F4 (C34-C50 Hydrocarbons)	mg/kg	3900	94	15		<10	3398109	<10	<10	<10	10	3405247
Reached Baseline at C50	mg/kg	YES	NO	NO		YES	3398109	YES	YES	YES	N/A	3405247
OIL & GREASE												
F4SG (Heavy Hydrocarbons-SilicaGel)	mg/kg		5500	2300	2500		3437023				100	
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	93	103	91		94	3398109	82	82	70		3405247

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104	Q57106		Q57107		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	<10	<10	<10	<10	3405247	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	47	350	50	19	<10	<10	3405247	66	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	23	<10	<10	<10	<10	3405247	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	YES	YES	YES	YES	YES	YES	3405247	YES	N/A	3410083
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	76	87	83	91	88	84	77	3405247	91		3410083

Maxxam ID		Q57107	Q57108	Q57109		Q57110	Q57111		Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29		
	Units	**2-09-TP5-1 Lab-Dup**	**2-09-TP6-1**	**2-09-TP7-1**	**QC Batch**	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	3410083	13	31	3400091	13	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	63	65	23	3410083	120	52	3400091	39	74	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	3410083	18	<10	3400091	<10	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	YES	YES	3410083	YES	YES	3400091	YES	YES	N/A	3410083
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	91	97	93	3410083	99	96	3400091	92	94		3410083

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

GLYCOLS BY GC-FID (SOIL)

Maxxam ID		Q56950		
Sampling Date		2009/08/29		
	Units	**1-09-2M-1**	**RDL**	**QC Batch**
Glycols				
Extractable (Water) Ethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Diethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Triethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Tetraethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Propylene Glycol	mg/kg	<10	10	3404986
Surrogate Recovery (%)				
Extractable (Water) SULFOLANE (sur.)	%	86		3404986

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56935	Q56937	Q56939	Q56943		Q56947	Q56947		Q56948		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/29		
	Units	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-5M-2**	**QC Batch**	**3-09-6M-3**	**3-09-6M-3 Lab-Dup**	**QC Batch**	**3-09-DUP-2**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	28	110	3393756	120		3393756	88	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	0.015	<0.005	0.86	<0.005	3398448	0.005	<0.005	3398449	<0.005	0.005	3398448
Ethylbenzene	mg/kg	<0.01	<0.01	0.05	<0.01	3398448	0.08	0.08	3398449	0.10	0.01	3398448
m & p-Xylene	mg/kg	<0.1	<0.1	0.3	<0.1	3398448	2.1	2.0	3398449	1.6	0.1	3398448
o-Xylene	mg/kg	<0.1	<0.1	0.1	<0.1	3398448	0.9	0.8	3398449	0.6	0.1	3398448
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Toluene	mg/kg	0.07	<0.05	0.16	<0.05	3398448	<0.05	<0.05	3398449	<0.05	0.05	3398448
Xylenes (Total)	mg/kg	<0.1	<0.1	0.5	<0.1	3398448	2.9	2.8	3398449	2.3	0.1	3398448
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	29	110	3398448	120	110	3398449	90	10	3398448
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	101	100	99	106	3398448	109	108	3398449	115		3398448
D10-ETHYLBENZENE (sur.)	%	102	98	102	101	3398448	107	106	3398449	102		3398448
D4-1,2-DICHLOROETHANE (sur.)	%	93	93	93	94	3398448	98	97	3398449	94		3398448
D8-TOLUENE (sur.)	%	103	102	102	98	3398448	100	100	3398449	98		3398448

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56949	Q56951	Q56978	Q56981	Q56982		Q56983	Q56983	Q56985		
Sampling Date		2009/08/29	2009/08/29	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-1M-1**	**1-09-3M-1**	**1-09-4M-1**	**1-09-DUP-1**	**4A-09-1M-1**	**QC Batch**	**4A-09-2M-1**	**4A-09-2M-1 Lab-Dup**	**4A-09-DUP-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	3393756	<10		<10	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	3398448	<0.005	<0.005	0.009	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	3398448	<0.01	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	3398448	<0.05	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	<10	<10	<10	3398448	<10	<10	<10	10	3399617
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	106	101	101	100	99	3398448	101	100	101		3399617
D10-ETHYLBENZENE (sur.)	%	101	100	96	102	94	3398448	100	100	100		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	92	94	100	97	101	3398448	102	103	104		3399617
D8-TOLUENE (sur.)	%	102	102	101	101	102	3398448	97	98	98		3399617

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56988	Q56989	Q57022	Q57023	Q57110	Q57111		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-6-1**	**4A-09-6-2**	**4A-09-7-1**	**4A-09-8-1**	**2-09-TP8-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	32	180	<10	<10	10	3393756
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	0.046	<0.005	<0.005	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	0.02	0.07	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	2.0	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	2.5	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons									
(C6-C10)	mg/kg	<10	<10	32	180	<10	<10	10	3399617
Volatiles									
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	100	101	102	111	100	103		3399617
D10-ETHYLBENZENE (sur.)	%	103	100	102	100	99	98		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	102	104	103	105	103	105		3399617
D8-TOLUENE (sur.)	%	98	98	98	99	97	97		3399617

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56950		Q56951	Q56978	Q56979	Q56980	Q56980	Q56984	Q56986		
Sampling Date		2009/08/29		2009/08/29	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-2M-1**	**QC Batch**	**1-09-3M-1**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**1-09-6M-1 Lab-Dup**	**4A-09-3M-1**	**4A-09-4-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.39	3407604	8.10	8.28	7.87	8.17	8.17	7.98	8.03	0.01	3407604
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	7100	3401543	7540	8490	3540	8170	9210	4310	4280	100	3401600
Total Antimony (Sb)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.1	3401600
Total Arsenic (As)	mg/kg	1.3	3401543	1.2	1.7	1.0	1.9	1.9	2.7	1.9	0.2	3401600
Total Barium (Ba)	mg/kg	37.3	3401543	35.2	40.3	21.7	38.6	42.0	27.2	28.3	0.1	3401600
Total Beryllium (Be)	mg/kg	0.5	3401543	0.5	0.5	0.2	0.4	0.5	0.3	0.2	0.1	3401600
Total Bismuth (Bi)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3401600
Total Cadmium (Cd)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.08	0.05	3401600
Total Calcium (Ca)	mg/kg	42600	3401543	31700	35600	44800	49100	51200	75700	75900	100	3401600
Total Chromium (Cr)	mg/kg	18	3401543	14	21	7	18	20	11	10	1	3401600
Total Cobalt (Co)	mg/kg	5.4	3401543	5.6	5.2	3.1	5.7	6.2	3.9	3.4	0.3	3401600
Total Copper (Cu)	mg/kg	12.2	3401543	23.8	12.0	16.5	12.3	13.7	9.0	8.2	0.5	3401600
Total Iron (Fe)	mg/kg	12500	3401543	10700	13700	7990	12500	13900	10600	9540	100	3401600
Total Lead (Pb)	mg/kg	5.1	3401543	4.9	4.9	3.5	5.1	5.6	13.5	14.4	0.1	3401600
Total Magnesium (Mg)	mg/kg	26300	3401543	19500	23200	24300	29000	31200	40300	43100	100	3401600
Total Manganese (Mn)	mg/kg	231	3401543	192	229	187	247	262	328	275	0.2	3401600
Total Mercury (Hg)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3401600
Total Molybdenum (Mo)	mg/kg	0.5	3401543	0.2	0.4	0.3	0.3	0.3	0.6	0.5	0.1	3401600
Total Nickel (Ni)	mg/kg	12.4	3401543	11.8	12.2	6.2	13.1	14.5	10.0	9.0	0.8	3401600
Total Phosphorus (P)	mg/kg	484	3401543	458	505	383	512	526	625	451	10	3401600
Total Potassium (K)	mg/kg	3180	3401543	3990	3320	1520	3470	3720	1900	1890	100	3401600
Total Selenium (Se)	mg/kg	<0.5	3401543	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3401600
Total Silver (Ag)	mg/kg	0.06	3401543	0.06	0.06	<0.05	0.06	0.06	<0.05	<0.05	0.05	3401600
Total Sodium (Na)	mg/kg	310	3401543	266	337	143	310	336	184	180	100	3401600
Total Strontium (Sr)	mg/kg	27.7	3401543	23.5	25.1	20.2	26.5	28.7	43.5	38.7	0.1	3401600
Total Thallium (Tl)	mg/kg	0.12	3401543	0.15	0.12	0.08	0.14	0.15	0.10	0.09	0.05	3401600
Total Tin (Sn)	mg/kg	0.3	3401543	0.3	0.4	0.1	0.3	0.4	0.2	0.2	0.1	3401600
Total Titanium (Ti)	mg/kg	415	3401543	219	562	157	433	483	184	192	1	3401600
Total Vanadium (V)	mg/kg	28	3401543	20	33	15	28	31	22	19	2	3401600
Total Zinc (Zn)	mg/kg	21	3401543	13	23	7	19	22	13	11	1	3401600
Total Zirconium (Zr)	mg/kg	5.7	3401543	5.9	5.8	2.1	5.6	6.3	2.9	2.8	0.5	3401600

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56987		Q57029	Q57029		Q57032	Q57033		Q57034		
Sampling Date		2009/08/30		2009/08/30	2009/08/30		2009/08/30	2009/08/30		2009/08/30		
	Units	**4A-09-5-1**	**QC Batch**	**5-09TP4-3**	**5-09TP4-3 Lab-Dup**	**QC Batch**	**6-09TP1-3**	**BG-1**	**QC Batch**	**BG-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.55	3407604	8.49	8.42	3410846	7.96	8.17	3412134	8.29	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3940	3401600	4420		3402570	4830	2470	3402612	2800	100	3402570
Total Antimony (Sb)	mg/kg	0.2	3401600	<0.1		3402570	0.1	<0.1	3402612	<0.1	0.1	3402570
Total Arsenic (As)	mg/kg	1.5	3401600	0.7		3402570	0.7	0.5	3402612	1.4	0.2	3402570
Total Barium (Ba)	mg/kg	25.3	3401600	33.3		3402570	32.3	21.6	3402612	18.6	0.1	3402570
Total Beryllium (Be)	mg/kg	0.4	3401600	0.3		3402570	0.3	0.2	3402612	0.3	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3401600	<0.1		3402570	<0.1	<0.1	3402612	<0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	0.39	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	92900	3401600	57400		3402570	53100	64600	3402612	51800	100	3402570
Total Chromium (Cr)	mg/kg	9	3401600	9		3402570	12	7	3402612	7	1	3402570
Total Cobalt (Co)	mg/kg	3.7	3401600	4.7		3402570	4.7	2.6	3402612	3.6	0.3	3402570
Total Copper (Cu)	mg/kg	10.8	3401600	9.3		3402570	10.4	8.7	3402612	8.4	0.5	3402570
Total Iron (Fe)	mg/kg	10100	3401600	9010		3402570	10400	9690	3402612	7750	100	3402570
Total Lead (Pb)	mg/kg	294	3401600	7.5		3402570	5.9	4.3	3402612	3.9	0.1	3402570
Total Magnesium (Mg)	mg/kg	53500	3401600	30400		3402570	31000	37000	3402612	28500	100	3402570
Total Manganese (Mn)	mg/kg	350	3401600	247		3402570	257	295	3402612	230	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.7	3401600	0.3		3402570	0.3	0.2	3402612	0.1	0.1	3402570
Total Nickel (Ni)	mg/kg	9.5	3401600	10.7		3402570	10.8	6.8	3402612	8.0	0.8	3402570
Total Phosphorus (P)	mg/kg	373	3401600	460		3402570	560	541	3402612	681	10	3402570
Total Potassium (K)	mg/kg	2250	3401600	2250		3402570	2220	1110	3402612	1520	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3401600	<0.5		3402570	<0.5	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3401600	0.06		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Sodium (Na)	mg/kg	195	3401600	229		3402570	149	<100	3402612	119	100	3402570
Total Strontium (Sr)	mg/kg	35.6	3401600	21.6		3402570	27.3	23.6	3402612	21.0	0.1	3402570
Total Thallium (Tl)	mg/kg	0.08	3401600	0.11		3402570	0.12	0.08	3402612	0.08	0.05	3402570
Total Tin (Sn)	mg/kg	0.3	3401600	0.2		3402570	0.2	0.1	3402612	0.2	0.1	3402570
Total Titanium (Ti)	mg/kg	122	3401600	188		3402570	260	121	3402612	126	1	3402570
Total Vanadium (V)	mg/kg	17	3401600	14		3402570	20	13	3402612	12	2	3402570
Total Zinc (Zn)	mg/kg	13	3401600	13		3402570	16	7	3402612	10	1	3402570
Total Zirconium (Zr)	mg/kg	3.1	3401600	3.9		3402570	2.9	2.5	3402612	3.7	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57035	Q57059		Q57062		Q57065	Q57101		Q57103		
Sampling Date		2009/08/30	2009/08/30		2009/08/30		2009/08/30	2009/08/29		2009/08/29		
	Units	**BG-3**	**5-09-TP1-1**	**QC Batch**	**5-09-TP2-1**	**QC Batch**	**5-09-TP3-1**	**2-09-TP1-2**	**QC Batch**	**2-09-TP2-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.34	8.28	3412134	8.29	3410846	8.60	7.30	3412134	7.75	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3310	6630	3402612	2640	3402570	3300	3560	3402612	8920	100	3404758
Total Antimony (Sb)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	0.3	0.2	3402612	0.2	0.1	3404758
Total Arsenic (As)	mg/kg	0.9	2.1	3402612	2.4	3402570	1.6	1.8	3402612	8.5	0.2	3404758
Total Barium (Ba)	mg/kg	19.4	35.5	3402612	28.2	3402570	35.6	41.4	3402612	60.3	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.3	3402612	0.4	3402570	0.3	0.3	3402612	0.6	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	<0.1	<0.1	3402612	<0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	0.14	3402612	<0.05	3402570	0.05	0.07	3402612	0.11	0.05	3404758
Total Calcium (Ca)	mg/kg	53000	53900	3402612	95400	3402570	91400	67900	3402612	54200	100	3404758
Total Chromium (Cr)	mg/kg	8	15	3402612	12	3402570	9	11	3402612	27	1	3404758
Total Cobalt (Co)	mg/kg	3.7	6.7	3402612	7.1	3402570	3.6	3.3	3402612	5.1	0.3	3404758
Total Copper (Cu)	mg/kg	8.0	11.8	3402612	13.7	3402570	8.0	28.7	3402612	12.5	0.5	3404758
Total Iron (Fe)	mg/kg	7400	13100	3402612	15200	3402570	9350	9650	3402612	16300	100	3404758
Total Lead (Pb)	mg/kg	3.5	6.5	3402612	10.6	3402570	16.9	4.9	3402612	6.2	0.1	3404758
Total Magnesium (Mg)	mg/kg	30900	32300	3402612	54000	3402570	51600	35400	3402612	33400	100	3404758
Total Manganese (Mn)	mg/kg	212	340	3402612	535	3402570	322	265	3402612	224	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402612	<0.05	3402570	<0.05	<0.05	3402612	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	0.2	0.5	3402612	0.7	3402570	0.6	0.8	3402612	3.4	0.1	3404758
Total Nickel (Ni)	mg/kg	8.7	14.8	3402612	18.2	3402570	8.7	14.4	3402612	15.5	0.8	3404758
Total Phosphorus (P)	mg/kg	464	583	3402612	1240	3402570	514	717	3402612	713	10	3404758
Total Potassium (K)	mg/kg	1690	2530	3402612	1750	3402570	1790	1500	3402612	3590	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402612	<0.5	3402570	<0.5	0.9	3402612	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	<0.05	0.06	3402612	0.07	3402570	<0.05	0.05	3402612	0.08	0.05	3404758
Total Sodium (Na)	mg/kg	135	179	3402612	180	3402570	163	329	3402612	585	100	3404758
Total Strontium (Sr)	mg/kg	20.2	26.9	3402612	47.4	3402570	34.5	27.2	3402612	35.6	0.1	3404758
Total Thallium (Tl)	mg/kg	0.09	0.13	3402612	0.08	3402570	0.09	0.13	3402612	0.14	0.05	3404758
Total Tin (Sn)	mg/kg	0.2	0.3	3402612	0.2	3402570	0.2	0.2	3402612	0.4	0.1	3404758
Total Titanium (Ti)	mg/kg	142	299	3402612	69	3402570	134	156	3402612	604	1	3404758
Total Vanadium (V)	mg/kg	13	22	3402612	21	3402570	14	18	3402612	43	2	3404758
Total Zinc (Zn)	mg/kg	9	34	3402612	8	3402570	12	15	3402612	32	1	3404758
Total Zirconium (Zr)	mg/kg	3.3	4.8	3402612	5.2	3402570	2.4	4.4	3402612	6.3	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57104		Q57106		Q57107		Q57108		Q57109		
Sampling Date		2009/08/29		2009/08/29		2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP3-1**	**QC Batch**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**QC Batch**	**2-09-TP6-1**	**QC Batch**	**2-09-TP7-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	7.90	3410846	8.49	3412134	8.02	3412134	8.09	3412134	8.12	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	4800	3402570	2950	3402612	4050	3402570	3860	3402612	3850	100	3402570
Total Antimony (Sb)	mg/kg	<0.1	3402570	<0.1	3402612	0.1	3402570	0.6	3402612	0.2	0.1	3402570
Total Arsenic (As)	mg/kg	1.8	3402570	1.6	3402612	3.3	3402570	40.6	3402612	6.5	0.2	3402570
Total Barium (Ba)	mg/kg	27.1	3402570	24.0	3402612	20.2	3402570	32.3	3402612	19.9	0.1	3402570
Total Beryllium (Be)	mg/kg	0.3	3402570	0.3	3402612	0.5	3402570	0.7	3402612	0.6	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3402570	<0.1	3402612	0.2	3402570	0.1	3402612	0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	<0.05	3402570	<0.05	3402612	1.45	3402570	0.06	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	54700	3402570	85900	3402612	81100	3402570	40800	3402612	31600	100	3402570
Total Chromium (Cr)	mg/kg	12	3402570	8	3402612	20	3402570	16	3402612	15	1	3402570
Total Cobalt (Co)	mg/kg	4.3	3402570	3.6	3402612	6.1	3402570	10.1	3402612	13.7	0.3	3402570
Total Copper (Cu)	mg/kg	12.0	3402570	8.5	3402612	94.5	3402570	24.5	3402612	20.0	0.5	3402570
Total Iron (Fe)	mg/kg	11100	3402570	8520	3402612	16200	3402570	51000	3402612	18200	100	3402570
Total Lead (Pb)	mg/kg	3.6	3402570	3.6	3402612	21.4	3402570	24.5	3402612	21.2	0.1	3402570
Total Magnesium (Mg)	mg/kg	32500	3402570	53300	3402612	48000	3402570	22600	3402612	17000	100	3402570
Total Manganese (Mn)	mg/kg	292	3402570	259	3402612	561	3402570	433	3402612	333	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3402570	<0.05	3402612	<0.05	3402570	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.4	3402570	0.3	3402612	1.3	3402570	7.4	3402612	4.9	0.1	3402570
Total Nickel (Ni)	mg/kg	10.4	3402570	8.5	3402612	32.1	3402570	25.5	3402612	20.9	0.8	3402570
Total Phosphorus (P)	mg/kg	539	3402570	636	3402612	1010	3402570	1820	3402612	798	10	3402570
Total Potassium (K)	mg/kg	1400	3402570	1890	3402612	1680	3402570	2570	3402612	2590	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3402570	<0.5	3402612	<0.5	3402570	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3402570	<0.05	3402612	0.09	3402570	<0.05	3402612	0.09	0.05	3402570
Total Sodium (Na)	mg/kg	215	3402570	333	3402612	231	3402570	1220	3402612	712	100	3402570
Total Strontium (Sr)	mg/kg	25.1	3402570	29.8	3402612	75.7	3402570	58.0	3402612	35.1	0.1	3402570
Total Thallium (Tl)	mg/kg	0.07	3402570	0.08	3402612	0.09	3402570	0.09	3402612	0.09	0.05	3402570
Total Tin (Sn)	mg/kg	0.2	3402570	0.1	3402612	0.4	3402570	0.4	3402612	0.5	0.1	3402570
Total Titanium (Ti)	mg/kg	285	3402570	135	3402612	110	3402570	75	3402612	84	1	3402570
Total Vanadium (V)	mg/kg	25	3402570	12	3402612	22	3402570	69	3402612	22	2	3402570
Total Zinc (Zn)	mg/kg	16	3402570	10	3402612	110	3402570	24	3402612	16	1	3402570
Total Zirconium (Zr)	mg/kg	2.5	3402570	2.0	3402612	4.5	3402570	4.3	3402612	6.1	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57110	Q57111		Q57114		Q57115		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**QC Batch**	**GR2**	**RDL**	**QC Batch**
Misc. Inorganics									
Soluble (2:1) pH	pH Units	8.14	8.32	3410846	8.10	3412134	7.90	0.01	3412134
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	2860	3180	3402570	3900	3402570	4980	100	3404758
Total Antimony (Sb)	mg/kg	0.2	0.1	3402570	0.2	3402570	0.1	0.1	3404758
Total Arsenic (As)	mg/kg	5.2	8.7	3402570	9.1	3402570	2.0	0.2	3404758
Total Barium (Ba)	mg/kg	41.5	17.1	3402570	25.7	3402570	24.5	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.7	3402570	0.7	3402570	0.3	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	0.1	3402570	0.1	3402570	0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	1.71	0.05	3404758
Total Calcium (Ca)	mg/kg	53800	111000	3402570	72900	3402570	72800	100	3404758
Total Chromium (Cr)	mg/kg	13	13	3402570	17	3402570	22	1	3404758
Total Cobalt (Co)	mg/kg	12.1	6.0	3402570	16.0	3402570	5.0	0.3	3404758
Total Copper (Cu)	mg/kg	18.2	11.3	3402570	22.4	3402570	102	0.5	3404758
Total Iron (Fe)	mg/kg	22200	22200	3402570	24300	3402570	11900	100	3404758
Total Lead (Pb)	mg/kg	22.9	15.2	3402570	25.6	3402570	20.8	0.1	3404758
Total Magnesium (Mg)	mg/kg	29600	63200	3402570	40800	3402570	40800	100	3404758
Total Manganese (Mn)	mg/kg	490	807	3402570	639	3402570	495	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	3.7	2.7	3402570	4.7	3402570	0.9	0.1	3404758
Total Nickel (Ni)	mg/kg	23.4	13.0	3402570	24.0	3402570	29.7	0.8	3404758
Total Phosphorus (P)	mg/kg	659	1600	3402570	1030	3402570	901	10	3404758
Total Potassium (K)	mg/kg	2080	2000	3402570	2480	3402570	1660	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402570	<0.5	3402570	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	0.11	0.05	3402570	0.07	3402570	0.07	0.05	3404758
Total Sodium (Na)	mg/kg	476	1300	3402570	1730	3402570	216	100	3404758
Total Strontium (Sr)	mg/kg	31.1	57.2	3402570	54.6	3402570	79.4	0.1	3404758
Total Thallium (Tl)	mg/kg	0.21	0.05	3402570	0.10	3402570	0.10	0.05	3404758
Total Tin (Sn)	mg/kg	0.4	0.3	3402570	0.5	3402570	0.5	0.1	3404758
Total Titanium (Ti)	mg/kg	61	80	3402570	110	3402570	147	1	3404758
Total Vanadium (V)	mg/kg	23	30	3402570	34	3402570	20	2	3404758
Total Zinc (Zn)	mg/kg	12	10	3402570	18	3402570	97	1	3404758
Total Zirconium (Zr)	mg/kg	5.7	6.2	3402570	4.9	3402570	3.1	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56933		Q56940	Q56941		Q56950	Q56950	Q56980		
Sampling Date		2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/30		
	Units	**3-09-1-1**	**QC Batch**	**3-09-4M-3**	**3-09-DUP-1**	**QC Batch**	**1-09-2M-1**	**1-09-2M-1 Lab-Dup**	**1-09-6M-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	<0.01	3393461	0.40	<0.01	3393461	<0.01		<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02	3393461	<0.02	<0.02	3393461	<0.02		<0.02	0.02	3393461
Total PAH	mg/kg	<0.02	3393461	0.40	<0.02	3393461	<0.02		<0.02	0.02	3393461
Naphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
2-Methylnaphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthylene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluorene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Phenanthrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Chrysene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(b&j)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(k)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Dibenz(a,h)anthracene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Benzo(g,h,i)perylene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	88	3396608	95	95	3397567	91	88	90		3396608
D12-BENZO(A)PYRENE (sur.)	%	84	3396608	91	89	3397567	86	85	85		3396608
D8-ACENAPHTHYLENE (sur.)	%	84	3396608	90	91	3397567	86	84	86		3396608
TERPHENYL-D14 (sur.)	%	87	3396608	96	94	3397567	91	88	88		3396608

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56984			Q56986		Q56987			Q57029	Q57032		
Sampling Date		2009/08/30			2009/08/30		2009/08/30			2009/08/30	2009/08/30		
	Units	**4A-09-3M-1**	**RDL**	**QC Batch**	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**RDL**	**QC Batch**
Polycyclic Aromatics													
Low Molecular Weight PAH`s	mg/kg	5.6	0.1	3393461	16	0.1	58	0.4	3393461	<0.01	<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	0.03	0.02	3393461	<0.2	0.2	<0.2	0.2	3393461	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	5.6	0.1	3393461	16	0.2	58	0.4	3393461	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	1.3	0.01	3400175	4.3(1)	0.1	13(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
2-Methylnaphthalene	mg/kg	4.0	0.01	3400175	11(1)	0.1	39(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Acenaphthylene	mg/kg	<0.1(2)	0.1	3400175	<0.1(2)	0.1	<0.4(2)	0.4	3397567	<0.01	<0.01	0.01	3401373
Acenaphthene	mg/kg	<0.03(2)	0.03	3400175	0.2(1)	0.1	0.8(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Fluorene	mg/kg	0.14	0.01	3400175	0.5(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Phenanthrene	mg/kg	0.13	0.01	3400175	0.3(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.3(2)	0.3	3397567	<0.01	<0.01	0.01	3401373
Fluoranthene	mg/kg	0.02	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Pyrene	mg/kg	0.01	0.01	3400175	<0.1(1)	0.1	0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Chrysene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(b&j)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(k)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)pyrene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Dibenz(a,h)anthracene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Benzo(g,h,i)perylene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Surrogate Recovery (%)													
D10-ANTHRACENE (sur.)	%	104		3400175	120		120		3397567	107	101		3401373
D12-BENZO(A)PYRENE (sur.)	%	101		3400175	110		110		3397567	99	94		3401373
D8-ACENAPHTHYLENE (sur.)	%	99		3400175	100		90		3397567	96	91		3401373
TERPHENYL-D14 (sur.)	%	96		3400175	110		100		3397567	94	91		3401373

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.
(2) - RDL raised due to sample matrix interference.

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q57059	Q57059		Q57062	Q57065	Q57103	Q57104	Q57111		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP1-1 Lab-Dup**	**QC Batch**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP2-2**	**2-09-TP3-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	0.01		3393461	<0.01	0.61	<0.01	<0.01	0.02	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02		3393461	<0.02	2.1	<0.02	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	<0.02		3393461	<0.02	2.7	<0.02	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	0.01	<0.01	3399651	<0.01	0.03	<0.01	<0.01	<0.01	0.01	3400184
2-Methylnaphthalene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	0.02	0.01	3400184
Acenaphthylene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3400184
Acenaphthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Fluorene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Phenanthrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.60	<0.01	<0.01	<0.01	0.01	3400184
Pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.18	<0.01	<0.01	<0.01	0.01	3400184
Chrysene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Benzo(b&j)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.27	<0.01	<0.01	<0.01	0.01	3400184
Benzo(k)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Dibenz(a,h)anthracene	mg/kg	<0.02	<0.02	3399651	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	3400184
Benzo(g,h,i)perylene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	95	95	3399651	108	107	112	115	114		3400184
D12-BENZO(A)PYRENE (sur.)	%	92	92	3399651	103	102	107	109	108		3400184
D8-ACENAPHTHYLENE (sur.)	%	90	90	3399651	98	98	99	102	102		3400184
TERPHENYL-D14 (sur.)	%	92	94	3399651	95	95	100	101	101		3400184

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10		44	<10	<10	<10	<10	10	4700	300	3393756
Chlorobenzenes												
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	1.2	0.006	<0.005	<0.005	<0.005	0.005	1.0	0.005	3399824
Ethylbenzene	mg/kg	<0.01	<0.01	0.08	<0.01	<0.01	<0.01	<0.01	0.01	5.6	0.01	3399824
m & p-Xylene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	0.1	22	0.1	3399824
o-Xylene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	7.0	0.1	3399824
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Toluene	mg/kg	<0.03	<0.03	0.28	<0.03	<0.03	<0.03	<0.03	0.03	15	0.03	3399824
Xylenes (Total)	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	<0.1	0.1	29	0.1	3399824

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Volatiles												
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<2(1)	2	3399824
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.3	3399824
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
cis-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	3399824
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	0.2	3399824
Vinyl chloride	mg/kg	<0.08(2)	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	<0.08	0.08	3399824
Volatile Hydrocarbons												
F1 (C06-C10)	mg/kg	<10	<10	47	<10	<10	<10	<10	10	4800(3)	300	3399909

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	84	85	92	86	84	85	85		72		3399824
D10-ETHYLBENZENE (sur.)	%	107	109	112	106	109	106	108		89		3399824
D4-1,2-DICHLOROETHANE (sur.)	%	82	83	80	82	82	81	82		80		3399824
D8-TOLUENE (sur.)	%	99	100	103	100	99	100	99		101		3399824

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters											
F1 (C06-C10) - BTEX	mg/kg	4400	300	4300	300	3393756	<10	<10		10	3393756
Chlorobenzenes											
1,2-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics											
Benzene	mg/kg	2.9	0.005	4.6	0.005	3399824	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	6.8	0.01	6.5	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	100(1)	0.5	65(1)	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	34(1)	0.5	11	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	37(1)	0.1	1.5	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	140	0.5	76	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Volatiles											
1,1,1,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<9(1)	9	<6(1)	6	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	0.3	<0.3	0.3	3399824	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05(2)	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	0.01	<0.01	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	0.2	<0.2	0.2	3399824	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	0.08	<0.08	0.08	3399824	<0.08	<0.08(2)	<0.08	0.08	3399837
Volatile Hydrocarbons											
F1 (C06-C10)	mg/kg	4600(3)	300	4400(3)	300	3399909	<10	<10	<10	10	3399912

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Surrogate Recovery (%)											
4-BROMOFLUOROBENZENE (sur.)	%	74		80		3399824	86	87	86		3399837
D10-ETHYLBENZENE (sur.)	%	89		89		3399824	109	107	104		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	81		84		3399824	80	81	81		3399837
D8-TOLUENE (sur.)	%	106		103		3399824	101	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	96	86	86	87	86	85		3399837
D10-ETHYLBENZENE (sur.)	%	99	106	107	94	109	106		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	102	81	79	81	79	79		3399837
D8-TOLUENE (sur.)	%	99	100	100	100	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	85	86	84	85	85	90		3399837
D10-ETHYLBENZENE (sur.)	%	104	105	106	101	103	91		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	80	81	80	79	79	83		3399837
D8-TOLUENE (sur.)	%	100	100	99	99	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Package 1	2.0°C
Package 2	5.0°C
Package 3	9.0°C
Package 4	9.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3395524	Moisture	2009/09/05					<0.3	%	2.6	20		
3395624	Moisture	2009/09/05					<0.3	%	0	20		
3395627	Moisture	2009/09/05					<0.3	%	9.2	20		
3396608	D10-ANTHRACENE (sur.)	2009/09/05			86	30 - 130	101	%				
3396608	D12-BENZO(A)PYRENE (sur.)	2009/09/05			84	30 - 130	94	%				
3396608	D8-ACENAPHTHYLENE (sur.)	2009/09/05			82	30 - 130	96	%				
3396608	TERPHENYL-D14 (sur.)	2009/09/05			86	30 - 130	100	%				
3396608	Naphthalene	2009/09/05	87	50 - 130	100	50 - 130	<0.01	mg/kg	NC	50		
3396608	2-Methylnaphthalene	2009/09/05	88	50 - 130	101	50 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthylene	2009/09/05	80	50 - 130	90	50 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthene	2009/09/05	86	50 - 130	98	50 - 130	<0.01	mg/kg	NC	50		
3396608	Fluorene	2009/09/05	81	50 - 130	96	50 - 130	<0.01	mg/kg	NC	50		
3396608	Phenanthrene	2009/09/05	88	60 - 130	101	60 - 130	<0.01	mg/kg	NC	50		
3396608	Anthracene	2009/09/05	83	60 - 130	96	60 - 130	<0.01	mg/kg	NC	50		
3396608	Fluoranthene	2009/09/05	83	60 - 130	100	60 - 130	<0.01	mg/kg	NC	50		
3396608	Pyrene	2009/09/05	85	60 - 130	97	60 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)anthracene	2009/09/05	81	60 - 130	91	60 - 130	<0.01	mg/kg	NC	50		
3396608	Chrysene	2009/09/05	81	60 - 130	92	60 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(b&j)fluoranthene	2009/09/05	85	60 - 130	101	60 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(k)fluoranthene	2009/09/05	82	60 - 130	95	60 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)pyrene	2009/09/05	86	60 - 130	97	60 - 130	<0.01	mg/kg	NC	50		
3396608	Indeno(1,2,3-cd)pyrene	2009/09/05	75	60 - 130	78	60 - 130	<0.02	mg/kg	NC	50		
3396608	Dibenz(a,h)anthracene	2009/09/05	72	60 - 130	76	60 - 130	<0.02	mg/kg	NC	50		
3396608	Benzo(g,h,i)perylene	2009/09/05	75	60 - 130	82	60 - 130	<0.02	mg/kg	NC	50		
3397567	D10-ANTHRACENE (sur.)	2009/09/05			91	30 - 130	101	%				
3397567	D12-BENZO(A)PYRENE (sur.)	2009/09/05			87	30 - 130	93	%				
3397567	D8-ACENAPHTHYLENE (sur.)	2009/09/05			89	30 - 130	96	%				
3397567	TERPHENYL-D14 (sur.)	2009/09/05			90	30 - 130	97	%				
3397567	Naphthalene	2009/09/05			106	50 - 130	<0.01	mg/kg	3.9	50		
3397567	2-Methylnaphthalene	2009/09/05			108	50 - 130	<0.01	mg/kg	2.8	50		
3397567	Acenaphthylene	2009/09/05			101	50 - 130	<0.01	mg/kg	3.0	50		
3397567	Acenaphthene	2009/09/05			102	50 - 130	<0.01	mg/kg	9.6	50		
3397567	Fluorene	2009/09/05			106	50 - 130	<0.01	mg/kg	9.0	50		
3397567	Phenanthrene	2009/09/05			110	60 - 130	<0.01	mg/kg	5.6	50		
3397567	Anthracene	2009/09/05			110	60 - 130	<0.01	mg/kg	7.4	50		
3397567	Fluoranthene	2009/09/05			109	60 - 130	<0.01	mg/kg	0.2	50		
3397567	Pyrene	2009/09/05			105	60 - 130	<0.01	mg/kg	1.4	50		
3397567	Benzo(a)anthracene	2009/09/05			102	60 - 130	<0.01	mg/kg	8.3	50		
3397567	Chrysene	2009/09/05			104	60 - 130	<0.01	mg/kg	5.4	50		
3397567	Benzo(b&j)fluoranthene	2009/09/05			103	60 - 130	<0.01	mg/kg	4.3	50		

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3397567	Benzo(k)fluoranthene	2009/09/05			108	60 - 130	<0.01	mg/kg	3.5	50		
3397567	Benzo(a)pyrene	2009/09/05			107	60 - 130	<0.01	mg/kg	1.8	50		
3397567	Indeno(1,2,3-cd)pyrene	2009/09/05			101	60 - 130	<0.02	mg/kg	6.1	50		
3397567	Dibenz(a,h)anthracene	2009/09/05			102	60 - 130	<0.02	mg/kg	5.1	50		
3397567	Benzo(g,h,i)perylene	2009/09/05			103	60 - 130	<0.02	mg/kg	5.6	50		
3398109	O-TERPHENYL (sur.)	2009/09/08			75	50 - 130	82	%				
3398109	F2 (C10-C16 Hydrocarbons)	2009/09/08			104	80 - 120	<10	mg/kg	NC	40		
3398109	F3 (C16-C34 Hydrocarbons)	2009/09/08			110	80 - 120	<10	mg/kg	3.3	40		
3398109	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.9	40		
3398109	Reached Baseline at C50	2009/09/08					YES, RDL=N/A	mg/kg	NC	50		
3398448	Benzene	2009/09/05			95	80 - 120	<0.005	mg/kg	NC	40		
3398448	Ethylbenzene	2009/09/05			108	80 - 120	<0.01	mg/kg	NC	40		
3398448	m & p-Xylene	2009/09/05			108	80 - 120	<0.1	mg/kg	NC	40		
3398448	o-Xylene	2009/09/05			110	80 - 120	<0.1	mg/kg	NC	40		
3398448	Toluene	2009/09/05			98	80 - 120	<0.05	mg/kg	NC	40		
3398448	4-BROMOFLUOROBENZENE (sur.)	2009/09/04			100	70 - 130	98	%			99	70 - 130
3398448	D10-ETHYLBENZENE (sur.)	2009/09/04			91	50 - 130	95	%			91	50 - 130
3398448	D4-1,2-DICHLOROETHANE (sur.)	2009/09/04			94	70 - 130	101	%			96	70 - 130
3398448	D8-TOLUENE (sur.)	2009/09/04			102	70 - 130	102	%			104	70 - 130
3398448	(C6-C10)	2009/09/05					<10	mg/kg	NC	40	83	80 - 120
3398448	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Xylenes (Total)	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Benzene	2009/09/05	97	60 - 140	97	80 - 120	<0.005	mg/kg	NC	40		
3398449	Ethylbenzene	2009/09/05	102	60 - 140	108	80 - 120	<0.01	mg/kg	3.5	40		
3398449	m & p-Xylene	2009/09/05	94	60 - 140	106	80 - 120	<0.1	mg/kg	5.2	40		
3398449	o-Xylene	2009/09/05	98	60 - 140	107	80 - 120	<0.1	mg/kg	9.7	40		
3398449	Toluene	2009/09/05	95	60 - 140	96	80 - 120	<0.05	mg/kg	NC	40		
3398449	4-BROMOFLUOROBENZENE (sur.)	2009/09/05			102	70 - 130	98	%			102	70 - 130
3398449	D10-ETHYLBENZENE (sur.)	2009/09/05			96	50 - 130	107	%			96	50 - 130
3398449	D4-1,2-DICHLOROETHANE (sur.)	2009/09/05			99	70 - 130	97	%			99	70 - 130
3398449	D8-TOLUENE (sur.)	2009/09/05			102	70 - 130	102	%			102	70 - 130
3398449	(C6-C10)	2009/09/05					<10	mg/kg	9.7	40	103	80 - 120
3398449	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Xylenes (Total)	2009/09/05					<0.1	mg/kg	6.6	40		
3398449	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398902	<200 mesh (>.075 mm)	2009/09/08							0.7	30		
3398902	>200 mesh (<.075 mm)	2009/09/08							1.2	30		
3399617	Benzene	2009/09/06	95	60 - 140	87	80 - 120	<0.005	mg/kg	NC	40		
3399617	Ethylbenzene	2009/09/06	100	60 - 140	95	80 - 120	<0.01	mg/kg	NC	40		

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399617	m & p-Xylene	2009/09/06	99	60 - 140	95	80 - 120	<0.1	mg/kg	NC	40		
3399617	o-Xylene	2009/09/06	103	60 - 140	98	80 - 120	<0.1	mg/kg	NC	40		
3399617	Toluene	2009/09/06	93	60 - 140	87	80 - 120	<0.05	mg/kg	NC	40		
3399617	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			103	70 - 130	99	%			102	70 - 130
3399617	D10-ETHYLBENZENE (sur.)	2009/09/06			92	50 - 130	99	%			91	50 - 130
3399617	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			102	70 - 130	98	%			104	70 - 130
3399617	D8-TOLUENE (sur.)	2009/09/06			99	70 - 130	100	%			99	70 - 130
3399617	(C6-C10)	2009/09/06					<10	mg/kg	NC	40	83	80 - 120
3399617	Styrene	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	40		
3399651	D10-ANTHRACENE (sur.)	2009/09/06			96	30 - 130	99	%				
3399651	D12-BENZO(A)PYRENE (sur.)	2009/09/06			93	30 - 130	93	%				
3399651	D8-ACENAPHTHYLENE (sur.)	2009/09/06			91	30 - 130	94	%				
3399651	TERPHENYL-D14 (sur.)	2009/09/06			91	30 - 130	96	%				
3399651	Naphthalene	2009/09/06	91	50 - 130	86	50 - 130	<0.01	mg/kg	NC	50		
3399651	2-Methylnaphthalene	2009/09/06	93	50 - 130	86	50 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthylene	2009/09/06	84	50 - 130	78	50 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthene	2009/09/06	89	50 - 130	84	50 - 130	<0.01	mg/kg	NC	50		
3399651	Fluorene	2009/09/06	88	50 - 130	82	50 - 130	<0.01	mg/kg	NC	50		
3399651	Phenanthrene	2009/09/06	91	60 - 130	88	60 - 130	<0.01	mg/kg	NC	50		
3399651	Anthracene	2009/09/06	88	60 - 130	83	60 - 130	<0.01	mg/kg	NC	50		
3399651	Fluoranthene	2009/09/06	90	60 - 130	84	60 - 130	<0.01	mg/kg	NC	50		
3399651	Pyrene	2009/09/06	86	60 - 130	82	60 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)anthracene	2009/09/06	86	60 - 130	78	60 - 130	<0.01	mg/kg	NC	50		
3399651	Chrysene	2009/09/06	83	60 - 130	80	60 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(b&j)fluoranthene	2009/09/06	90	60 - 130	80	60 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(k)fluoranthene	2009/09/06	92	60 - 130	88	60 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)pyrene	2009/09/06	93	60 - 130	86	60 - 130	<0.01	mg/kg	NC	50		
3399651	Indeno(1,2,3-cd)pyrene	2009/09/06	90	60 - 130	82	60 - 130	<0.02	mg/kg	NC	50		
3399651	Dibenz(a,h)anthracene	2009/09/06	91	60 - 130	83	60 - 130	<0.02	mg/kg	NC	50		
3399651	Benzo(g,h,i)perylene	2009/09/06	88	60 - 130	81	60 - 130	<0.02	mg/kg	NC	50		
3399824	1,2-dichlorobenzene	2009/09/07	104	60 - 140	101	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,3-dichlorobenzene	2009/09/07	108	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,4-dichlorobenzene	2009/09/07	99	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorobenzene	2009/09/07	102	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	Benzene	2009/09/07	102	60 - 140	95	60 - 140	<0.005	mg/kg	NC	50		
3399824	Ethylbenzene	2009/09/07	111	60 - 140	103	60 - 140	<0.01	mg/kg	NC	50		
3399824	m & p-Xylene	2009/09/07	115	60 - 140	106	60 - 140	<0.1	mg/kg	NC	50		
3399824	o-Xylene	2009/09/07	105	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399824	Styrene	2009/09/07	100	60 - 140	94	60 - 140	<0.1	mg/kg	NC	50		
3399824	Toluene	2009/09/07	99	60 - 140	91	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1,2-tetrachloroethane	2009/09/07	103	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1-trichloroethane	2009/09/07	113	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2,2-tetrachloroethane	2009/09/07	80	60 - 140	78	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2-trichloroethane	2009/09/07	87	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethane	2009/09/07	106	60 - 140	98	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethene	2009/09/07	117	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloroethane	2009/09/07	89	60 - 140	82	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloropropane	2009/09/07	101	60 - 140	94	60 - 140	<0.03	mg/kg	NC	50		
3399824	4-BROMOFLUOROBENZENE (sur.)	2009/09/07			101	70 - 130	86	%				
3399824	Bromodichloromethane	2009/09/07	96	60 - 140	88	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromoform	2009/09/07	72	60 - 140	68	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromomethane	2009/09/07	69	40 - 150	71	40 - 150	<0.3	mg/kg	NC	50		
3399824	Carbon tetrachloride	2009/09/07	118	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorodibromomethane	2009/09/07	92	60 - 140	86	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloroethane	2009/09/07	52	40 - 150	107	40 - 150	<0.1	mg/kg	NC	50		
3399824	Chloroform	2009/09/07	103	60 - 140	95	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloromethane	2009/09/07	99	40 - 150	94	40 - 150	<0.1	mg/kg	NC	50		
3399824	cis-1,2-dichloroethene	2009/09/07	104	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	cis-1,3-dichloropropene	2009/09/07	55 (1)	60 - 140	57 (1, 2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	D10-ETHYLBENZENE (sur.)	2009/09/07			97	50 - 130	105	%				
3399824	D4-1,2-DICHLOROETHANE (sur.)	2009/09/07			85	70 - 130	82	%				
3399824	D8-TOLUENE (sur.)	2009/09/07			103	70 - 130	100	%				
3399824	Dibromoethane	2009/09/07	85	60 - 140	79	60 - 140	<0.03	mg/kg	NC	50		
3399824	Dichloromethane	2009/09/07	87	60 - 140	80	60 - 140	<0.1	mg/kg	NC	50		
3399824	Tetrachloroethene	2009/09/07	115	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,2-dichloroethene	2009/09/07	112	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,3-dichloropropene	2009/09/07	41 (1)	60 - 140	44 (1, 2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	Trichloroethene	2009/09/07	114	60 - 140	105	60 - 140	<0.01	mg/kg	NC	50		
3399824	Trichlorofluoromethane	2009/09/07	116	40 - 150	106	40 - 150	<0.2	mg/kg	NC	50		
3399824	Vinyl chloride	2009/09/07	24 (1)	40 - 150	24 (1, 2)	40 - 150	<0.08	mg/kg	NC	50		
3399824	Xylenes (Total)	2009/09/07					<0.1	mg/kg	NC	50		
3399824	Methyl-tert-butylether(MTBE)	2009/09/07					<0.1	mg/kg	NC	50		
3399837	1,2-dichlorobenzene	2009/09/06	106	60 - 140	102	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,3-dichlorobenzene	2009/09/06	108	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,4-dichlorobenzene	2009/09/06	99	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorobenzene	2009/09/06	102	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Benzene	2009/09/06	102	60 - 140	99	60 - 140	<0.005	mg/kg	NC	50		
3399837	Ethylbenzene	2009/09/06	111	60 - 140	107	60 - 140	<0.01	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399837	m & p-Xylene	2009/09/06	116	60 - 140	112	60 - 140	<0.1	mg/kg	NC	50		
3399837	o-Xylene	2009/09/06	107	60 - 140	103	60 - 140	<0.1	mg/kg	NC	50		
3399837	Styrene	2009/09/06	103	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		
3399837	Toluene	2009/09/06	98	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1,2-tetrachloroethane	2009/09/06	104	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1-trichloroethane	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2,2-tetrachloroethane	2009/09/06	81	60 - 140	81	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2-trichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethane	2009/09/06	106	60 - 140	103	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethene	2009/09/06	115	60 - 140	109	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloropropane	2009/09/06	101	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			99	70 - 130	84	%				
3399837	Bromodichloromethane	2009/09/06	96	60 - 140	92	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromoform	2009/09/06	73	60 - 140	70	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromomethane	2009/09/06	72	40 - 150	66	40 - 150	<0.3	mg/kg	NC	50		
3399837	Carbon tetrachloride	2009/09/06	116	60 - 140	111	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorodibromomethane	2009/09/06	93	60 - 140	89	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloroethane	2009/09/06	110	40 - 150	48	40 - 150	<0.1	mg/kg	NC	50		
3399837	Chloroform	2009/09/06	102	60 - 140	99	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloromethane	2009/09/06	87	40 - 150	88	40 - 150	<0.1	mg/kg	NC	50		
3399837	cis-1,2-dichloroethene	2009/09/06	103	60 - 140	100	60 - 140	<0.03	mg/kg	NC	50		
3399837	cis-1,3-dichloropropene	2009/09/06	69	60 - 140	67	60 - 140	<0.05	mg/kg	NC	50		
3399837	D10-ETHYLBENZENE (sur.)	2009/09/06			99	50 - 130	106	%				
3399837	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			84	70 - 130	79	%				
3399837	D8-TOLUENE (sur.)	2009/09/06			102	70 - 130	100	%				
3399837	Dibromoethane	2009/09/06	85	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399837	Dichloromethane	2009/09/06	86	60 - 140	84	60 - 140	<0.1	mg/kg	NC	50		
3399837	Tetrachloroethene	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,2-dichloroethene	2009/09/06	112	60 - 140	108	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,3-dichloropropene	2009/09/06	53(1)	60 - 140	52(1, 2)	60 - 140	<0.05	mg/kg	NC	50		
3399837	Trichloroethene	2009/09/06	113	60 - 140	109	60 - 140	<0.01	mg/kg	NC	50		
3399837	Trichlorofluoromethane	2009/09/06	108	40 - 150	105	40 - 150	<0.2	mg/kg	NC	50		
3399837	Vinyl chloride	2009/09/06	22(1)	40 - 150	20(1, 2)	40 - 150	<0.08	mg/kg	NC	50		
3399837	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	50		
3399837	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	50		
3399909	F1 (C06-C10)	2009/09/07					<10	mg/kg	NC	50	87	80 - 120
3399912	F1 (C06-C10)	2009/09/06					<10	mg/kg	NC	50	97	80 - 120
3400091	O-TERPHENYL (sur.)	2009/09/08			96	50 - 130	101	%				
3400091	F2 (C10-C16 Hydrocarbons)	2009/09/08			98	80 - 120	<10	mg/kg	NC	40		

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400091	F3 (C16-C34 Hydrocarbons)	2009/09/08			105	80 - 120	<10	mg/kg	32.3	40		
3400091	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.3	40		
3400091	Reached Baseline at C50	2009/09/08			YES	N/A	YES, RDL=N/A	mg/kg	NC	50		
3400175	D10-ANTHRACENE (sur.)	2009/09/08			92	30 - 130	118	%				
3400175	D12-BENZO(A)PYRENE (sur.)	2009/09/08			88	30 - 130	111	%				
3400175	D8-ACENAPHTHYLENE (sur.)	2009/09/08			87	30 - 130	107	%				
3400175	TERPHENYL-D14 (sur.)	2009/09/08			86	30 - 130	108	%				
3400175	Naphthalene	2009/09/08			107	50 - 130	<0.01	mg/kg	NC	50		
3400175	2-Methylnaphthalene	2009/09/08			108	50 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthylene	2009/09/08			94	50 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthene	2009/09/08			99	50 - 130	<0.01	mg/kg	NC	50		
3400175	Fluorene	2009/09/08			96	50 - 130	<0.01	mg/kg	NC	50		
3400175	Phenanthrene	2009/09/08			110	60 - 130	<0.01	mg/kg	NC	50		
3400175	Anthracene	2009/09/08			106	60 - 130	<0.01	mg/kg	NC	50		
3400175	Fluoranthene	2009/09/08			106	60 - 130	<0.01	mg/kg	NC	50		
3400175	Pyrene	2009/09/08			100	60 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)anthracene	2009/09/08			101	60 - 130	<0.01	mg/kg	NC	50		
3400175	Chrysene	2009/09/08			100	60 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(b&j)fluoranthene	2009/09/08			106	60 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(k)fluoranthene	2009/09/08			108	60 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)pyrene	2009/09/08			105	60 - 130	<0.01	mg/kg	NC	50		
3400175	Indeno(1,2,3-cd)pyrene	2009/09/08			93	60 - 130	<0.02	mg/kg	NC	50		
3400175	Dibenz(a,h)anthracene	2009/09/08			93	60 - 130	<0.02	mg/kg	NC	50		
3400175	Benzo(g,h,i)perylene	2009/09/08			90	60 - 130	<0.02	mg/kg	NC	50		
3400184	D10-ANTHRACENE (sur.)	2009/09/09			92	30 - 130	115	%				
3400184	D12-BENZO(A)PYRENE (sur.)	2009/09/09			93	30 - 130	109	%				
3400184	D8-ACENAPHTHYLENE (sur.)	2009/09/09			92	30 - 130	103	%				
3400184	TERPHENYL-D14 (sur.)	2009/09/09			91	30 - 130	104	%				
3400184	Naphthalene	2009/09/09			101	50 - 130	<0.01	mg/kg	22.0	50		
3400184	2-Methylnaphthalene	2009/09/09			103	50 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthylene	2009/09/09			91	50 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthene	2009/09/09			97	50 - 130	<0.01	mg/kg	NC	50		
3400184	Fluorene	2009/09/09			100	50 - 130	<0.01	mg/kg	NC	50		
3400184	Phenanthrene	2009/09/09			99	60 - 130	<0.01	mg/kg	NC	50		
3400184	Anthracene	2009/09/09			98	60 - 130	<0.01	mg/kg	NC	50		
3400184	Fluoranthene	2009/09/09			97	60 - 130	<0.01	mg/kg	NC	50		
3400184	Pyrene	2009/09/09			91	60 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)anthracene	2009/09/09			91	60 - 130	<0.01	mg/kg	NC	50		
3400184	Chrysene	2009/09/09			92	60 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(b&j)fluoranthene	2009/09/09			94	60 - 130	<0.01	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400184	Benzo(k)fluoranthene	2009/09/09			100	60 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)pyrene	2009/09/09			95	60 - 130	<0.01	mg/kg	NC	50		
3400184	Indeno(1,2,3-cd)pyrene	2009/09/09			97	60 - 130	<0.02	mg/kg	NC	50		
3400184	Dibenz(a,h)anthracene	2009/09/09			94	60 - 130	<0.02	mg/kg	NC	50		
3400184	Benzo(g,h,i)perylene	2009/09/09			97	60 - 130	<0.02	mg/kg	NC	50		
3401373	D10-ANTHRACENE (sur.)	2009/09/09			96	30 - 130	116	%				
3401373	D12-BENZO(A)PYRENE (sur.)	2009/09/09			92	30 - 130	106	%				
3401373	D8-ACENAPHTHYLENE (sur.)	2009/09/09			95	30 - 130	103	%				
3401373	TERPHENYL-D14 (sur.)	2009/09/09			92	30 - 130	102	%				
3401373	Naphthalene	2009/09/09			94	50 - 130	<0.01	mg/kg	NC	50		
3401373	2-Methylnaphthalene	2009/09/09			97	50 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthylene	2009/09/09			88	50 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthene	2009/09/09			96	50 - 130	<0.01	mg/kg	NC	50		
3401373	Fluorene	2009/09/09			99	50 - 130	<0.01	mg/kg	NC	50		
3401373	Phenanthrene	2009/09/09			101	60 - 130	<0.01	mg/kg	NC	50		
3401373	Anthracene	2009/09/09			89	60 - 130	<0.01	mg/kg	NC	50		
3401373	Fluoranthene	2009/09/09			95	60 - 130	<0.01	mg/kg	NC	50		
3401373	Pyrene	2009/09/09			91	60 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)anthracene	2009/09/09			90	60 - 130	<0.01	mg/kg	NC	50		
3401373	Chrysene	2009/09/09			89	60 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(b&j)fluoranthene	2009/09/09			92	60 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(k)fluoranthene	2009/09/09			93	60 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)pyrene	2009/09/09			94	60 - 130	<0.01	mg/kg	NC	50		
3401373	Indeno(1,2,3-cd)pyrene	2009/09/09			89	60 - 130	<0.02	mg/kg	NC	50		
3401373	Dibenz(a,h)anthracene	2009/09/09			89	60 - 130	<0.02	mg/kg	NC	50		
3401373	Benzo(g,h,i)perylene	2009/09/09			89	60 - 130	<0.02	mg/kg	NC	50		
3401543	Total Arsenic (As)	2009/09/09			100	75 - 125	<0.2	mg/kg	0.6	30	92	70 - 130
3401543	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3401543	Total Cadmium (Cd)	2009/09/09			103	75 - 125	<0.05	mg/kg	0.05	30	83	70 - 130
3401543	Total Chromium (Cr)	2009/09/09			102	75 - 125	<1	mg/kg	3.8	30	98	70 - 130
3401543	Total Cobalt (Co)	2009/09/09			102	75 - 125	<0.3	mg/kg	2.6	30	94	70 - 130
3401543	Total Copper (Cu)	2009/09/09			103	75 - 125	<0.5	mg/kg	0.4	30	94	70 - 130
3401543	Total Lead (Pb)	2009/09/09			100	75 - 125	<0.1	mg/kg	1.9	35	98	70 - 130
3401543	Total Mercury (Hg)	2009/09/09			107	75 - 125	<0.05	mg/kg	NC	35		
3401543	Total Nickel (Ni)	2009/09/09			104	75 - 125	<0.8	mg/kg	1.2	30	94	70 - 130
3401543	Total Selenium (Se)	2009/09/09			107	75 - 125	<0.5	mg/kg	NC	30		
3401543	Total Vanadium (V)	2009/09/09			122	75 - 125	2, RDL=2	mg/kg	0.9	30	124	70 - 130
3401543	Total Zinc (Zn)	2009/09/09			108	75 - 125	<1	mg/kg	1.4	30	97	70 - 130
3401543	Total Aluminum (Al)	2009/09/09					<100	mg/kg	1	35	107	70 - 130
3401543	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	1.4	30	100	70 - 130

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401543	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	1	35	111	70 - 130
3401543	Total Calcium (Ca)	2009/09/09					<100	mg/kg	0.5	30	91	70 - 130
3401543	Total Iron (Fe)	2009/09/09					<100	mg/kg	2.1	30	102	70 - 130
3401543	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.1	30	99	70 - 130
3401543	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	7.2	30	100	70 - 130
3401543	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	2.3	35	91	70 - 130
3401543	Total Phosphorus (P)	2009/09/09					<10	mg/kg	5.1	30	101	70 - 130
3401543	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	1.5	35	95	70 - 130
3401543	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	1.5	35	102	70 - 130
3401543	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	90	70 - 130
3401543	Total Titanium (Ti)	2009/09/09					<1	mg/kg	2.2	35	120	70 - 130
3401543	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	8.9	30		
3401543	Total Potassium (K)	2009/09/09					<100	mg/kg	4.8	35		
3401543	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401543	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	3.9	35		
3401543	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	17.3	30		
3401600	Total Arsenic (As)	2009/09/09	101	75 - 125	97	75 - 125	<0.2	mg/kg	2.3	30	83	70 - 130
3401600	Total Beryllium (Be)	2009/09/09	106	75 - 125	97	75 - 125	<0.1	mg/kg	NC	30		
3401600	Total Cadmium (Cd)	2009/09/09	106	75 - 125	98	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3401600	Total Chromium (Cr)	2009/09/09	109	75 - 125	103	75 - 125	<1	mg/kg	12.0	30	97	70 - 130
3401600	Total Cobalt (Co)	2009/09/09	104	75 - 125	103	75 - 125	<0.3	mg/kg	8.5	30	88	70 - 130
3401600	Total Copper (Cu)	2009/09/09	104	75 - 125	103	75 - 125	<0.5	mg/kg	11.1	30	89	70 - 130
3401600	Total Lead (Pb)	2009/09/09	103	75 - 125	100	75 - 125	<0.1	mg/kg	8.6	35	91	70 - 130
3401600	Total Mercury (Hg)	2009/09/09	107	75 - 125	106	75 - 125	<0.05	mg/kg	NC	35		
3401600	Total Nickel (Ni)	2009/09/09	102	75 - 125	101	75 - 125	<0.8	mg/kg	9.7	30	89	70 - 130
3401600	Total Selenium (Se)	2009/09/09	111	75 - 125	108	75 - 125	<0.5	mg/kg	NC	30		
3401600	Total Vanadium (V)	2009/09/09	NC	75 - 125	122	75 - 125	<2	mg/kg	10.1	30	119	70 - 130
3401600	Total Zinc (Zn)	2009/09/09	105	75 - 125	108	75 - 125	<1	mg/kg	12.8	30	92	70 - 130
3401600	Total Aluminum (Al)	2009/09/09					<100	mg/kg	12.0	35	103	70 - 130
3401600	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	83	70 - 130
3401600	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	8.7	35	103	70 - 130
3401600	Total Calcium (Ca)	2009/09/09					<100	mg/kg	4.2	30	89	70 - 130
3401600	Total Iron (Fe)	2009/09/09					<100	mg/kg	10.1	30	96	70 - 130
3401600	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.5	30	95	70 - 130
3401600	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	6.2	30	93	70 - 130
3401600	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	NC	35	94	70 - 130
3401600	Total Phosphorus (P)	2009/09/09					<10	mg/kg	2.8	30	94	70 - 130
3401600	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	84	70 - 130
3401600	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	8.0	35	94	70 - 130
3401600	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	78	70 - 130

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401600	Total Titanium (Ti)	2009/09/09					<1	mg/kg	11.0	35	113	70 - 130
3401600	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3401600	Total Potassium (K)	2009/09/09					<100	mg/kg	7.2	35		
3401600	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401600	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3401600	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	11.5	30		
3402570	Total Arsenic (As)	2009/09/10			101	75 - 125	<0.2	mg/kg	3.2	30	90	70 - 130
3402570	Total Beryllium (Be)	2009/09/10			103	75 - 125	<0.1	mg/kg	NC	30		
3402570	Total Cadmium (Cd)	2009/09/10			101	75 - 125	<0.05	mg/kg	2.3	30	78	70 - 130
3402570	Total Chromium (Cr)	2009/09/10			102	75 - 125	<1	mg/kg	1.3	30	88	70 - 130
3402570	Total Cobalt (Co)	2009/09/10			104	75 - 125	<0.3	mg/kg	1.2	30	87	70 - 130
3402570	Total Copper (Cu)	2009/09/10			106	75 - 125	<0.5	mg/kg	1.5	30	88	70 - 130
3402570	Total Lead (Pb)	2009/09/10			101	75 - 125	<0.1	mg/kg	1.3	35	93	70 - 130
3402570	Total Mercury (Hg)	2009/09/10			109	75 - 125	<0.05	mg/kg	NC	35		
3402570	Total Nickel (Ni)	2009/09/10			103	75 - 125	<0.8	mg/kg	0.9	30	86	70 - 130
3402570	Total Selenium (Se)	2009/09/10			108	75 - 125	<0.5	mg/kg	NC	30		
3402570	Total Vanadium (V)	2009/09/10			123	75 - 125	<2	mg/kg	2.3	30	110	70 - 130
3402570	Total Zinc (Zn)	2009/09/10			110	75 - 125	<1	mg/kg	3.4	30	90	70 - 130
3402570	Total Aluminum (Al)	2009/09/10					<100	mg/kg	15.4	35	88	70 - 130
3402570	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	89	70 - 130
3402570	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	2.3	35	106	70 - 130
3402570	Total Calcium (Ca)	2009/09/10					<100	mg/kg	4.6	30	89	70 - 130
3402570	Total Iron (Fe)	2009/09/10					<100	mg/kg	1	30	93	70 - 130
3402570	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.6	30	91	70 - 130
3402570	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	3.6	30	96	70 - 130
3402570	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	6.2	35	74	70 - 130
3402570	Total Phosphorus (P)	2009/09/10					<10	mg/kg	1.7	30	104	70 - 130
3402570	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	88	70 - 130
3402570	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	1.6	35	97	70 - 130
3402570	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	76	70 - 130
3402570	Total Titanium (Ti)	2009/09/10					<1	mg/kg	1.6	35	105	70 - 130
3402570	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402570	Total Potassium (K)	2009/09/10					<100	mg/kg	13.1	35		
3402570	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402570	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402570	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3402612	Total Arsenic (As)	2009/09/10			103	75 - 125	<0.2	mg/kg	0.6	30	86	70 - 130
3402612	Total Beryllium (Be)	2009/09/10			107	75 - 125	<0.1	mg/kg	NC	30		
3402612	Total Cadmium (Cd)	2009/09/10			103	75 - 125	<0.05	mg/kg	NC	30	81	70 - 130
3402612	Total Chromium (Cr)	2009/09/10			106	75 - 125	<1	mg/kg	1.3	30	91	70 - 130

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3402612	Total Cobalt (Co)	2009/09/10			107	75 - 125	<0.3	mg/kg	1.4	30	89	70 - 130
3402612	Total Copper (Cu)	2009/09/10			109	75 - 125	<0.5	mg/kg	4.8	30	88	70 - 130
3402612	Total Lead (Pb)	2009/09/10			106	75 - 125	<0.1	mg/kg	0.8	35	95	70 - 130
3402612	Total Mercury (Hg)	2009/09/10			112	75 - 125	<0.05	mg/kg	NC	35		
3402612	Total Nickel (Ni)	2009/09/10			105	75 - 125	<0.8	mg/kg	2.3	30	88	70 - 130
3402612	Total Selenium (Se)	2009/09/10			114	75 - 125	<0.5	mg/kg	NC	30		
3402612	Total Vanadium (V)	2009/09/10			115	75 - 125	<2	mg/kg	2.0	30	113	70 - 130
3402612	Total Zinc (Zn)	2009/09/10			115	75 - 125	<1	mg/kg	10.2	30	95	70 - 130
3402612	Total Aluminum (Al)	2009/09/10					<100	mg/kg	3.1	35	96	70 - 130
3402612	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	86	70 - 130
3402612	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	1.2	35	107	70 - 130
3402612	Total Calcium (Ca)	2009/09/10					<100	mg/kg	1.6	30	101	70 - 130
3402612	Total Iron (Fe)	2009/09/10					<100	mg/kg	7.4	30	87	70 - 130
3402612	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.2	30	111	70 - 130
3402612	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	7.5	30	99	70 - 130
3402612	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	NC	35	83	70 - 130
3402612	Total Phosphorus (P)	2009/09/10					<10	mg/kg	2.1	30	93	70 - 130
3402612	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	86	70 - 130
3402612	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	9.2	35	100	70 - 130
3402612	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	79	70 - 130
3402612	Total Titanium (Ti)	2009/09/10					<1	mg/kg	4.5	35	108	70 - 130
3402612	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402612	Total Potassium (K)	2009/09/10					<100	mg/kg	5.1	35		
3402612	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402612	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402612	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3404758	Total Arsenic (As)	2009/09/09			98	75 - 125	<0.2	mg/kg	5.0	30	86	70 - 130
3404758	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3404758	Total Cadmium (Cd)	2009/09/09			100	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Chromium (Cr)	2009/09/09			97	75 - 125	<1	mg/kg	0.1	30	92	70 - 130
3404758	Total Cobalt (Co)	2009/09/09			99	75 - 125	<0.3	mg/kg	0.2	30	86	70 - 130
3404758	Total Copper (Cu)	2009/09/09			101	75 - 125	<0.5	mg/kg	1.4	30	86	70 - 130
3404758	Total Lead (Pb)	2009/09/09			97	75 - 125	<0.1	mg/kg	0.3	35	94	70 - 130
3404758	Total Mercury (Hg)	2009/09/09			104	75 - 125	<0.05	mg/kg	NC	35		
3404758	Total Nickel (Ni)	2009/09/09			94	75 - 125	<0.8	mg/kg	1.5	30	87	70 - 130
3404758	Total Selenium (Se)	2009/09/09			106	75 - 125	<0.5	mg/kg	NC	30		
3404758	Total Vanadium (V)	2009/09/09			121	75 - 125	<2	mg/kg	1.7	30	123	70 - 130
3404758	Total Zinc (Zn)	2009/09/09			102	75 - 125	<1	mg/kg	1.9	30	88	70 - 130
3404758	Total Aluminum (Al)	2009/09/09					<100	mg/kg	8.6	35	105	70 - 130
3404758	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	103	70 - 130

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3404758	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	0.04	35	109	70 - 130
3404758	Total Calcium (Ca)	2009/09/09					<100	mg/kg	1.5	30	90	70 - 130
3404758	Total Iron (Fe)	2009/09/09					<100	mg/kg	3.3	30	93	70 - 130
3404758	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	1.9	30	95	70 - 130
3404758	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	0.7	30	95	70 - 130
3404758	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	8.5	35	89	70 - 130
3404758	Total Phosphorus (P)	2009/09/09					<10	mg/kg	3.6	30	91	70 - 130
3404758	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	94	70 - 130
3404758	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	0.04	35	99	70 - 130
3404758	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Titanium (Ti)	2009/09/09					<1	mg/kg	0.2	35	113	70 - 130
3404758	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3404758	Total Potassium (K)	2009/09/09					<100	mg/kg	11.5	35		
3404758	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3404758	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3404758	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	NC	30		
3404986	Extractable (Water) SULFOLANE (sur.)	2009/09/10			100	60 - 140	98	%				
3404986	Extractable (Water) Ethylene Glycol	2009/09/10			106	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Diethylene Glycol	2009/09/10			108	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Triethylene Glycol	2009/09/10			114	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Tetraethylene Glycol	2009/09/10			126	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Propylene Glycol	2009/09/10			97	30 - 130	<10	mg/kg	NC	40		
3405247	O-TERPHENYL (sur.)	2009/09/09			80	50 - 130	88	%				
3405247	F2 (C10-C16 Hydrocarbons)	2009/09/09	99	50 - 130	104	80 - 120	<10	mg/kg	NC	40		
3405247	F3 (C16-C34 Hydrocarbons)	2009/09/09	102	50 - 130	103	80 - 120	<10	mg/kg	NC	40		
3405247	F4 (C34-C50 Hydrocarbons)	2009/09/09	99	50 - 130	100	80 - 120	<10	mg/kg	NC	40		
3405247	Reached Baseline at C50	2009/09/09							NC	50		
3407604	Soluble (2:1) pH	2009/09/11			100	96 - 104			0	20		
3410083	O-TERPHENYL (sur.)	2009/09/11			88	50 - 130	92	%				
3410083	F2 (C10-C16 Hydrocarbons)	2009/09/11	109	50 - 130	99	80 - 120	<10	mg/kg	NC	40		
3410083	F3 (C16-C34 Hydrocarbons)	2009/09/11	116	50 - 130	102	80 - 120	<10	mg/kg	5.1	40		
3410083	F4 (C34-C50 Hydrocarbons)	2009/09/11	121	50 - 130	111	80 - 120	<10	mg/kg	NC	40		
3410083	Reached Baseline at C50	2009/09/11							NC	50		
3410846	Soluble (2:1) pH	2009/09/12			100	96 - 104			0.8	20		

Maxxam Job #: A947822
Report Date: 2009/10/06

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3412134	Soluble (2:1) pH	2009/09/12			100	96 - 104			0	20		
3437023	F4SG (Heavy Hydrocarbons-SilicaGel)	2009/09/22			109	N/A	<100	mg/kg	7.8	30		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) - LCS outside acceptance criteria (10% of analytes failure allowed)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80795 A-947822

CHAIN OF CUSTODY

Page: 1 of 8

Invoice To: Require Report? Yes ☐ No ☐

Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: jsmith@franzenvironmental.com and jkeenliside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1743-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PCB	VOC	PAH	WATERS: ☐ VOCs	☐ BTEX F1	☐ BTEX F1-F2	☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved	Filtered ☐ Not Filtered	REGULATED METALS (CCME / AT1)[1]	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	3-09-1-1	S	09/08/29	X								X	X															3
2	3-09-2-1	S			X																							2
3	3-09-2-2	S		X																								2
4	3-09-3-1	S																									X	2
5	3-09-3-2	S		X																								1
6	3-09-4H1	S																									X	3
7	3-09-4H2	S		X	X																							3
8	3-09-4H-3	S		X							X	X	X															3
9	3-09-DUP-1	S		X								X	X															3
10	3-09-5H-1	S																									X	3
11	3-09-5H-2	S		X																								3
12	3-09-5H-3	S																									X	3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Viviane Date/Time: Aug 31 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 1590	2.2.2 4.5.6 9.9.9	9.10.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80794 **CHAIN OF CUSTODY** Page: 2 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRASE ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND ST. VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9941

Report To:
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb- ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): Glycols	Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	3-09-6M-1	S	2009/08/29																				X	3
2	3-09-6M-2	S																					X	3
3	3-09-6M-3	S		X																				3
4	3-09-DUP-2	S		X																				3
5	1-09-1M-1	S		X																				5
6	1-09-2M-1	S		X			X				X	X	X									X	X		5
7	1-09-3M-1	S		X			X																		5
8																									
9																									1
10																									
11																									
12																									

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Date/Time: Aug 31, 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 1550	2.2 | 2 9 | 10 | 9 4 | 5 | 6 9 | 9 | 9	
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80792

CHAIN OF CUSTODY

Page: 3 of 8

Invoice To: Require Report? Yes ☐ No ☐

Company Name: Franz environmental
Contact Name: 308-1080 mainland
Address: Vancouver
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
jsmith@franzenvironmental.com
and jkennedside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 248-0901
Project Name: Cambridge Bay
Location:
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):
_____
_____
_____

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	☐ Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb[1] ☐ F	Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Filtered	REGULATED METALS (CCME / AT1)[1] ☐ Preserved ☐ Not Filtered ☐ Dissolved	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	1-09-4M-1	S	2009/08/30	X			X																	2
2	1-09-5M-1	S		X			X				X													2
3	1-09-6M-1	S		X	X		X				X	X	X											3
4	1-09-DUP-1	S		X																				2
5	4a-09-1M-1	S		X																				3
6	4a-09-2M-1	S		X																				3
7	4a-09-3M-1	S		X			X				X		X											3
8	4a-09-DUP-1	S		X																				3
9	4A-09-4-1	S		X			X				X		X											3
10	4A-09-5-1	S		X			X				X		X											3
11	4A-09-6-1	S		X																				3
12	4A-09-6-2	S		X																				3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vincent Doto **Date/Time:** Aug 31, 2009

Sign and Print: _____

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	09/09/12 MA 15:50	2/2/12 4/5/6 9/9/9	9/09/09
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL-FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80793 **CHAIN OF CUSTODY** Page: 4 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND ST VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: SAME AS invoice
jsmith@franzenvironmental.com and jkenlside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: MC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved	☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	4A-09-7-1	S	2009/08/30	X																		3
2	4A-09-8-1	S	2009/08/30	X																		3
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivane Doiron **Date/Time:** Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 02/09/09 15:50	2.2.2 4.5.6 9.9.9	9.10.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80791 **CHAIN OF CUSTODY** Page: 5 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
JSmith@franzenvironmental.com and jkenlside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb- ☐ F	REGULATED METALS (CCME / AT1)[3] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	5-09TP3-3	S	2009/08/30																			X	3
2	5-09TP3-4	S		[illegible]			[illegible]				[illegible]	[illegible]										X	3
3	5-09TP4-1	S																				X	3
4	5-09TP4-2	S																				X	3
5	5-09TP4[illegible]-3	S		X			X				X	X											3
6	6-09TP1-2	S																				X	3
7	6-09TP1-1	S																				X	3
8	6-09TP1-3	S		X			X				X	X											3
9	[illegible] BG-1	S					X																1
10	BG2	S					X																1
11	BG-3	S					X																1
12																							

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vanessa Date Date/Time: Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2, 2, 2, 1 / 4, 5, 6 / 9, 9, 9, 1	9, 10, 9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80785 **CHAIN OF CUSTODY** Page: 6 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name:
Address: James Smith - Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To: James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☑ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	S-09-TP1-1	S	2009/08/30	X			X				X	X											3
2	S-09-TP1-2	S																				X	3
3	S-09-TP1-3	S																				X	3
4	S-09-TP2-1	S		X			X				X	X											3
5	S-09-TP2-2	S																				X	3
6	S-09-TP2-3	S																				X	3
7	S-09-TP3-1	S		X			X				X	X											3
8	S-09-TP3-2	S																				X	3
9																							
10																							
11																							
12																							

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vanessa Stolz **Date/Time:** Aug 31/2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 / 4.5.6. / 9.9.9.	9.1 w.i. 9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80786 **CHAIN OF CUSTODY** Page: 7 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: VANCOUVER
Prov: PC:
Contact #s: Ph: 604-632-9941 Fax:

Report To: James Smith
jsmith@franzenvironmental.com
jkenlisside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-09 01
Project Name: Cambridge Bay
Location:
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOCs	BTEX F1 ☐ VOCs	BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb. ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP1 1	S	2009/08/29																			5
2	2-09-TP1-2	S		X			X				X											3
3	2-09TP2-1	S																			X	5
4	2-09-TP2-2	S		X			X				X								X			5
5	2-09-TP3-1	S		X			X				X											3
6	2-09-TP3-2	S																			X	3
7	2-09-TP4	S		X			X				X											3
8	2-09-TP5-1	S		X			X				X											3
9	2-09-TP6-1	S		X			X				X											3
10	2-09-TP7-1	S		X			X				X											3
11	2-09-TP8-1	S		X			X												X			3
12	2-09-TP9-1	S	↓	X			X					X										3

Restricted

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivian Date Date/Time: Aug 31/2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2,2,2 / 4,5,6 / 9,9,9	9,10,9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80787 **CHAIN OF CUSTODY** # 8 Page: 8 of 8

Invoice To: Require Report? Yes [X] No [ ]
Company Name: Fraser environmental
Contact Name:
Address: Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To:
James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1348-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
[ ] AT1
[X] CCME
[ ] OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
[ ] **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
[X] REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter	pH (1:1)	TCLP	BTEX	Metals	WATERS: BTEX F1 VOCs	BTEX F1-F2	BTEX F1-F4	Routine Water Package	Turb	F	Total Preserved	Not Preserved	Dissolved Preserved	Not Preserved	Filtered	Not Filtered	REGULATED METALS (CCME / AT1)[2]	Mercury Total	Dissolved	Ammonia	TKN	COD	TOC	DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP10-1	S	2009/08/29	X			X						X	VOCs																						3
2	GR2	S	2009/08/29	X			X						X																					if not enough jars just perform BTEX/metals		3
3	2-09-TPDUP-1	S	2009/08/29	X			X						X																							2
4																																				
5																																				
6																																				
7																																				
8																																				
9																																				
10																																				
11																																				
12																																				

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivienne Dodo Date/Time: Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

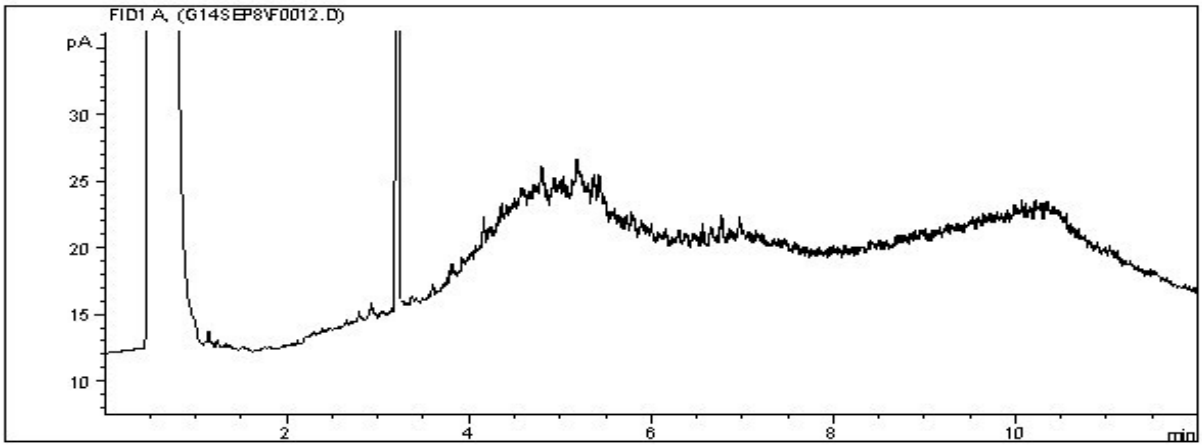
# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 4.5.6. 9.9.9.	9/10/09
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

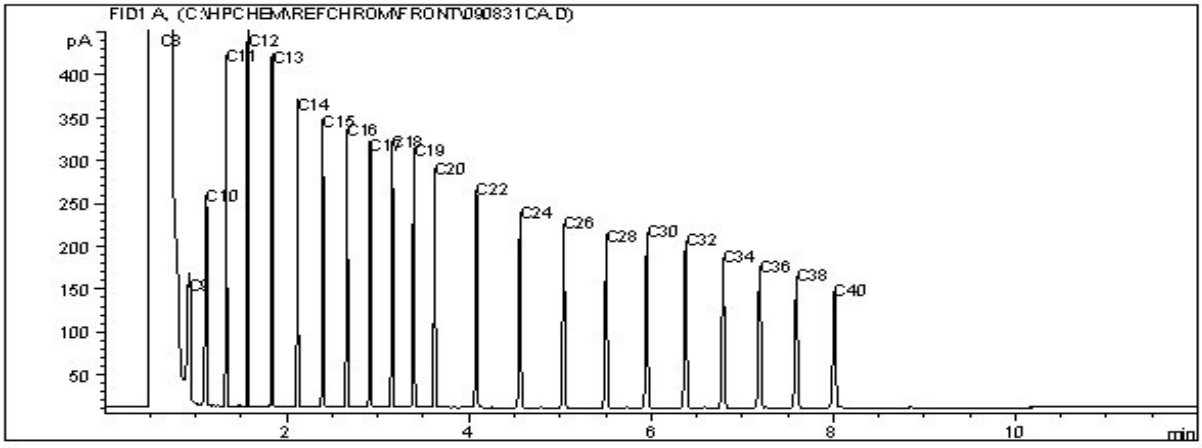
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56933

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-1-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

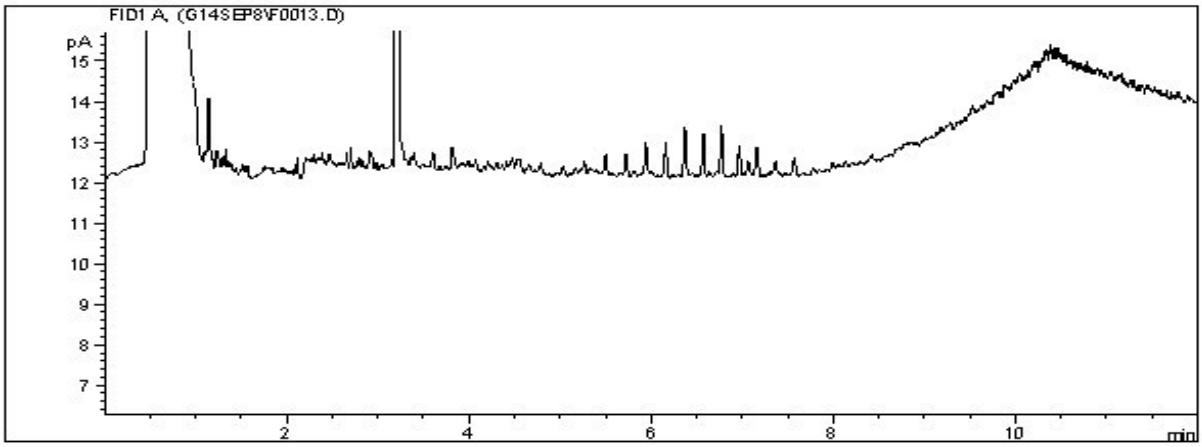
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

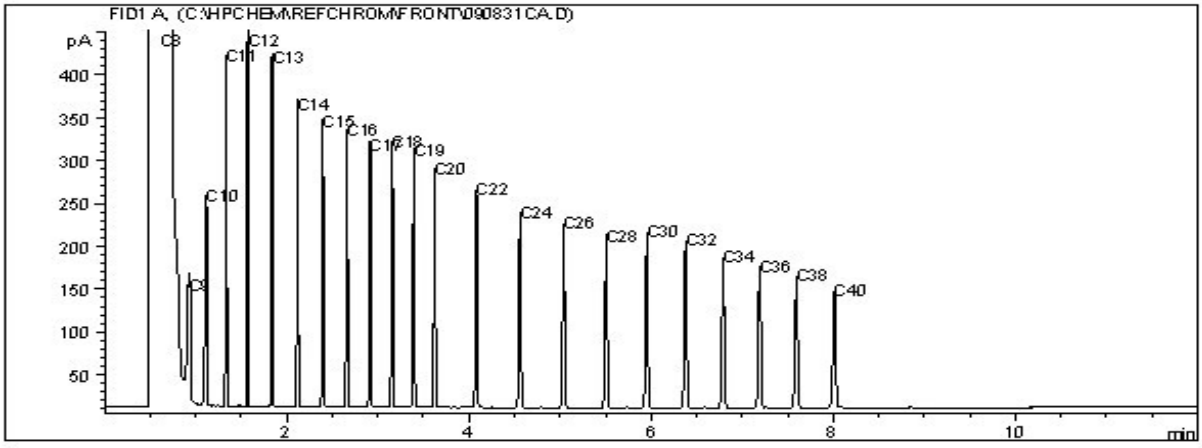
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56935

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-2-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

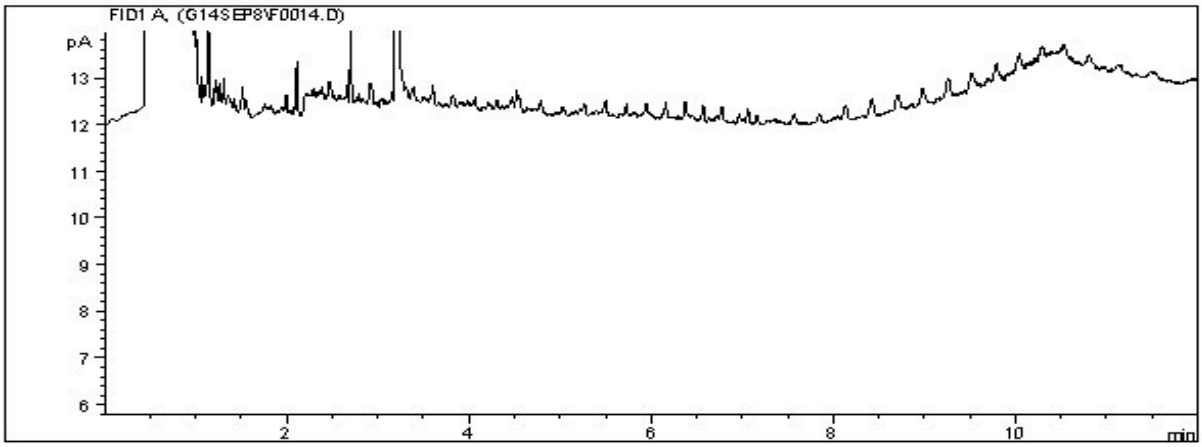
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

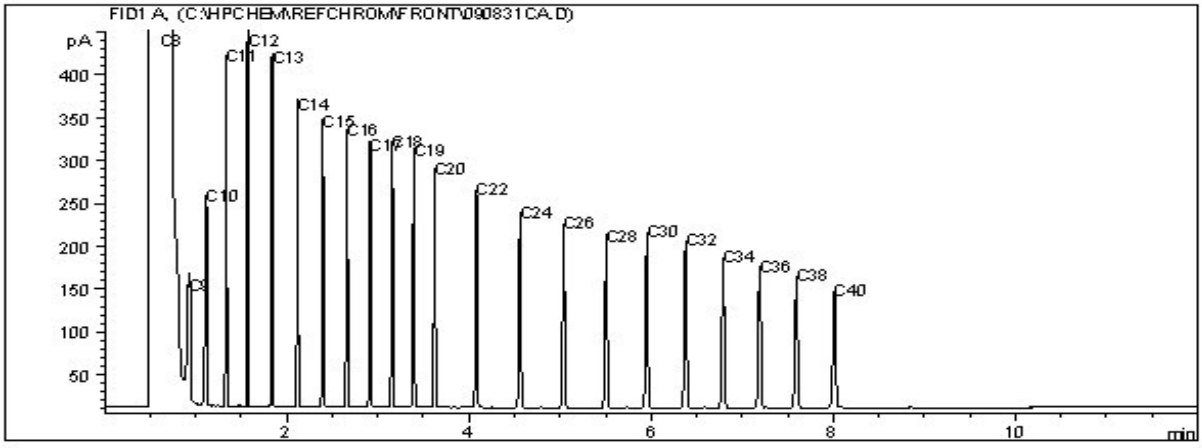
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56937

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-3-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

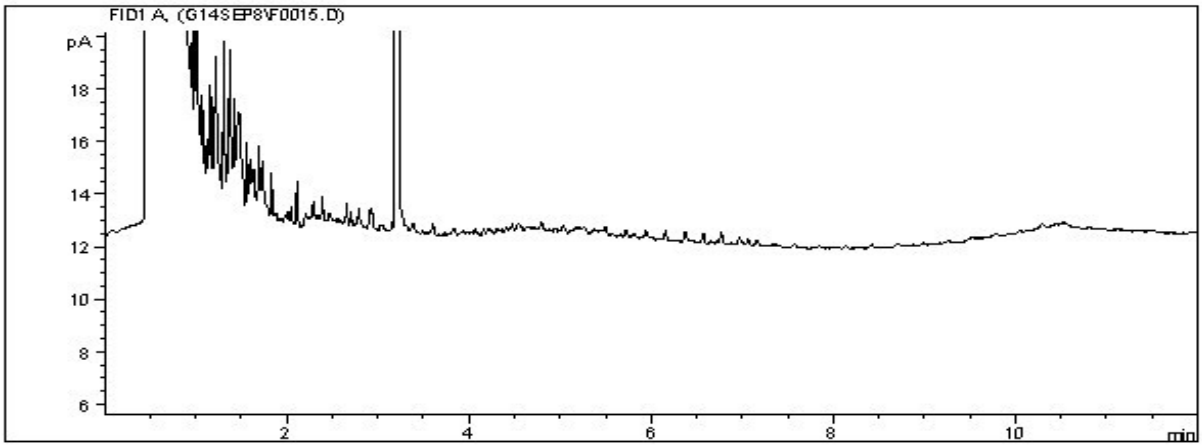
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

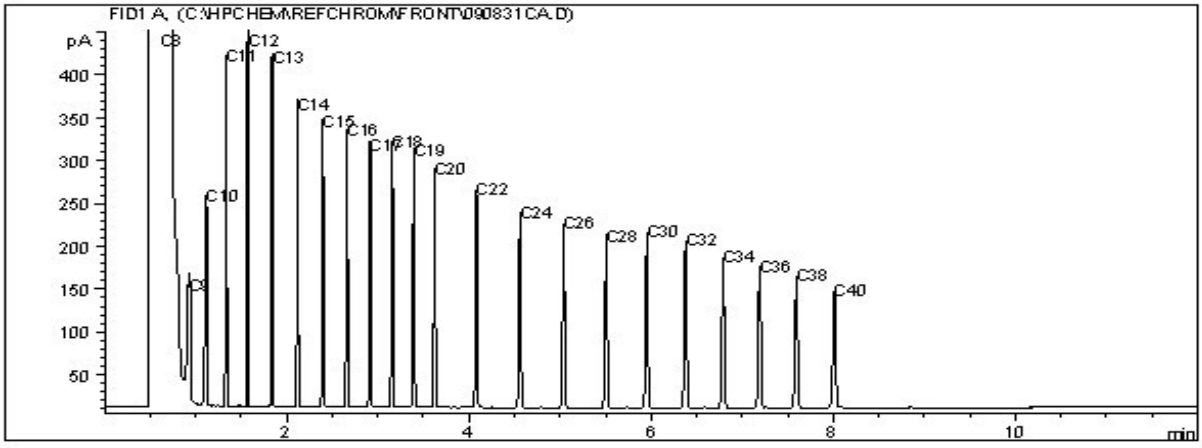
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56939

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-4M-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

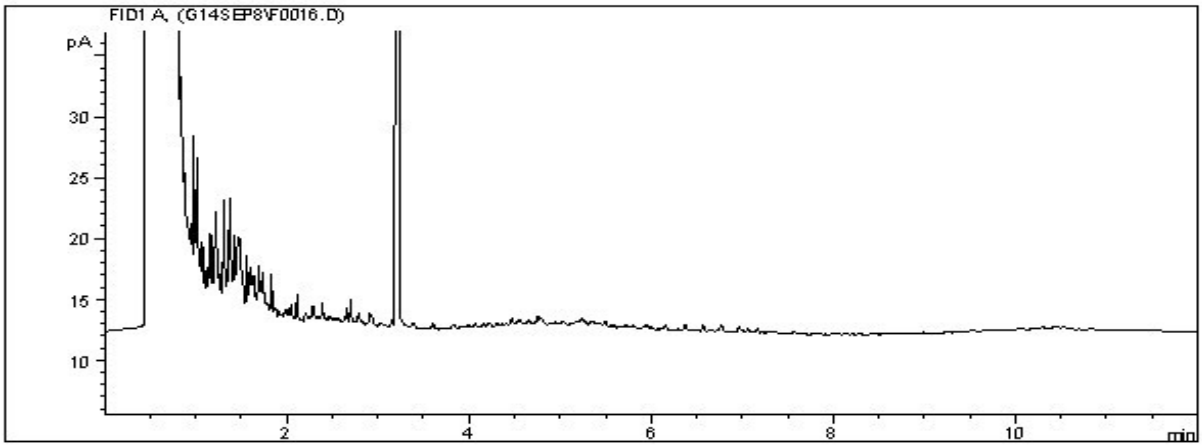
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

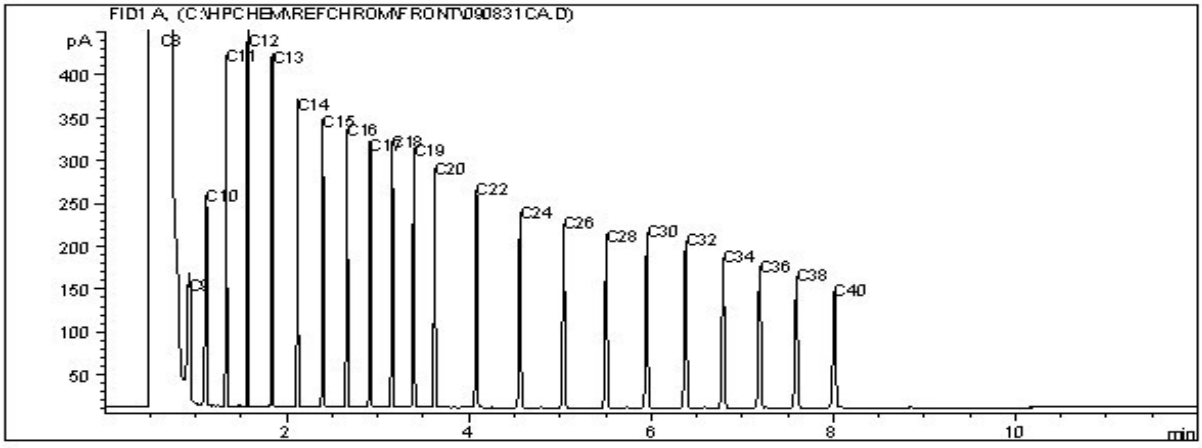
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56940

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-4M-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

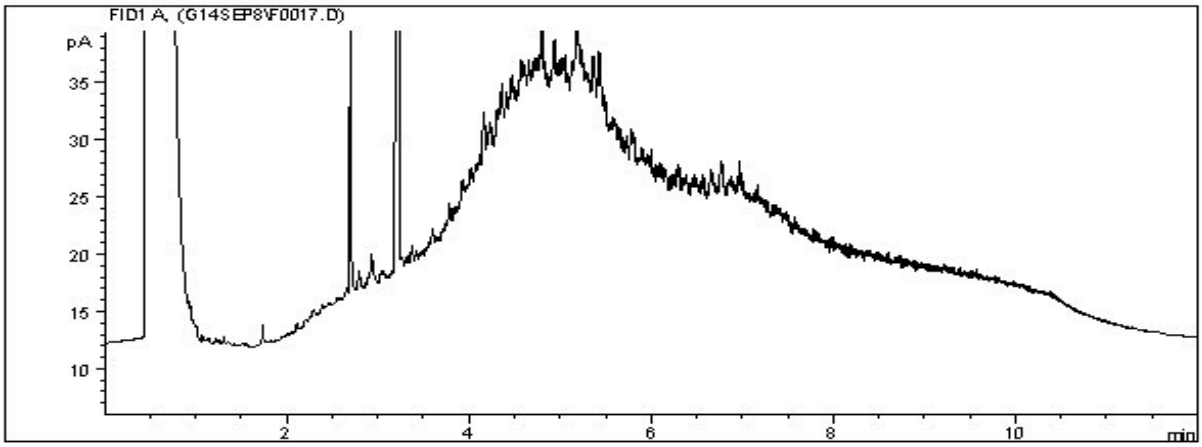
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

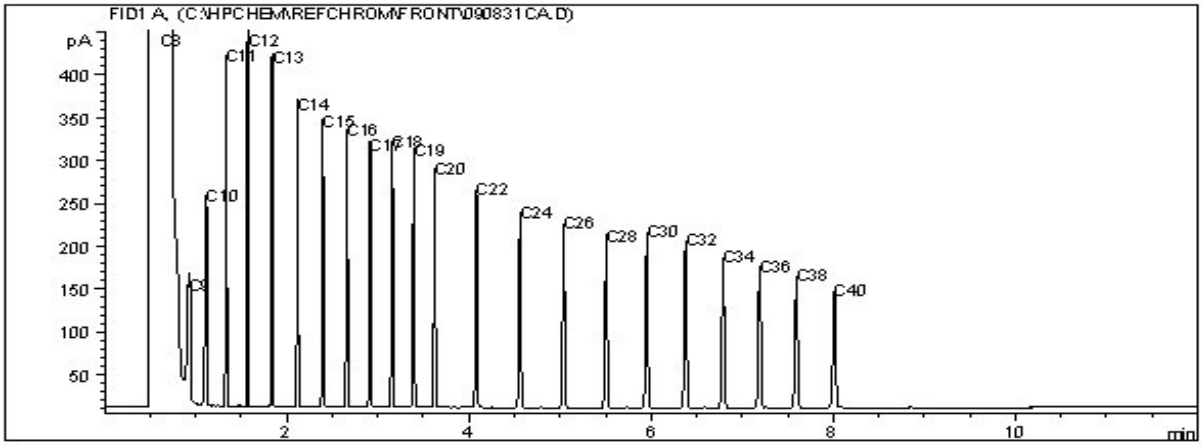
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56941

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

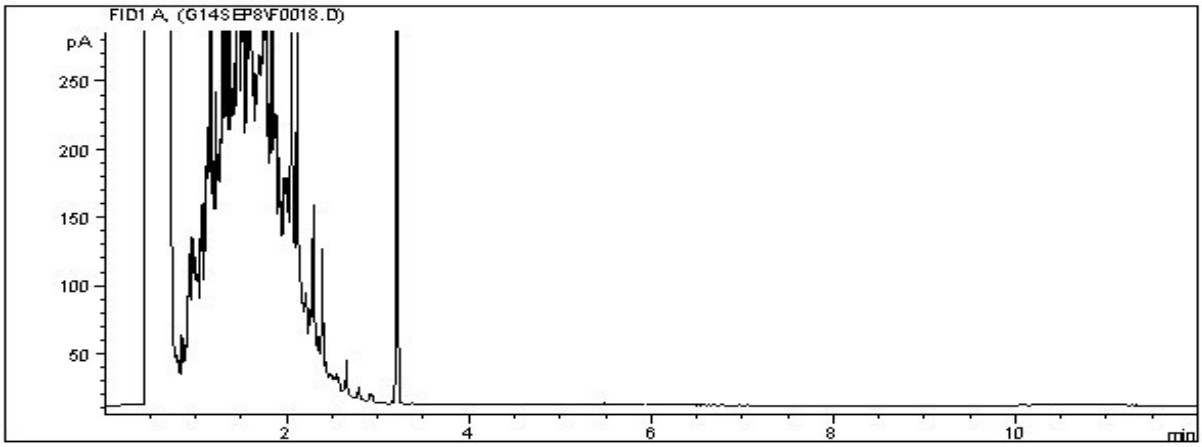
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

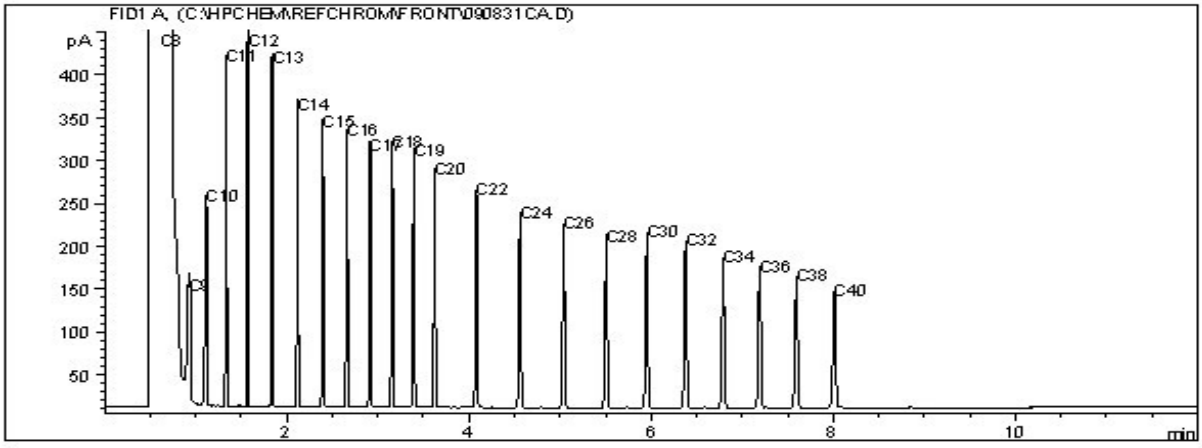
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56943

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-5M-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

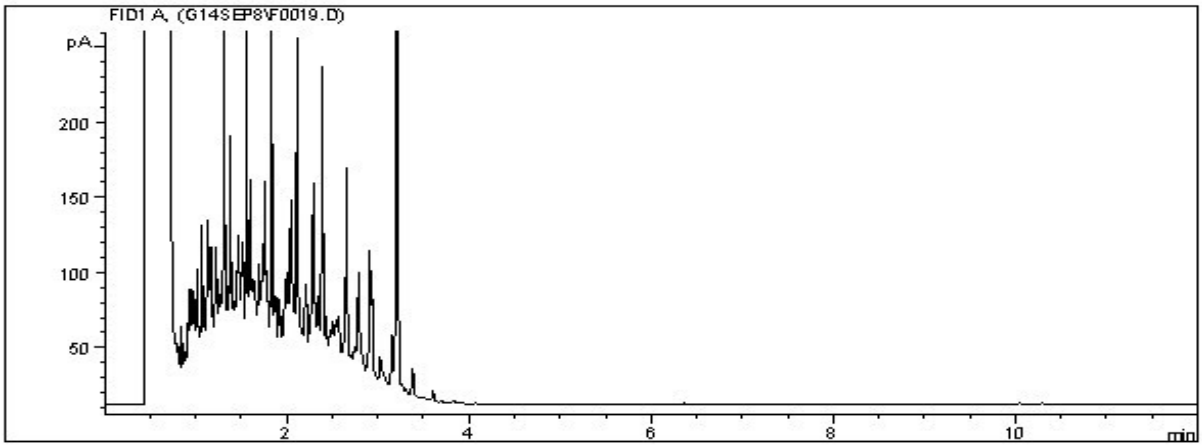
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

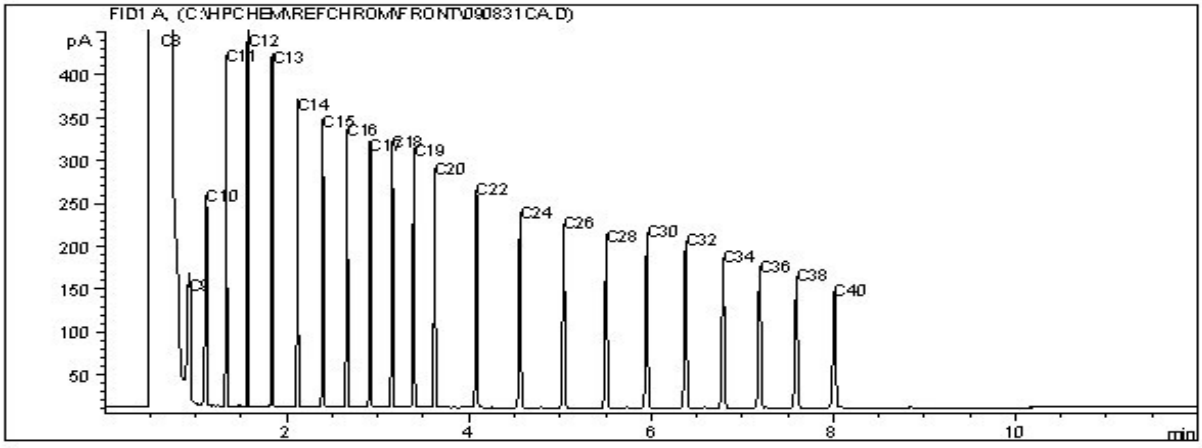
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56947

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-6M-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

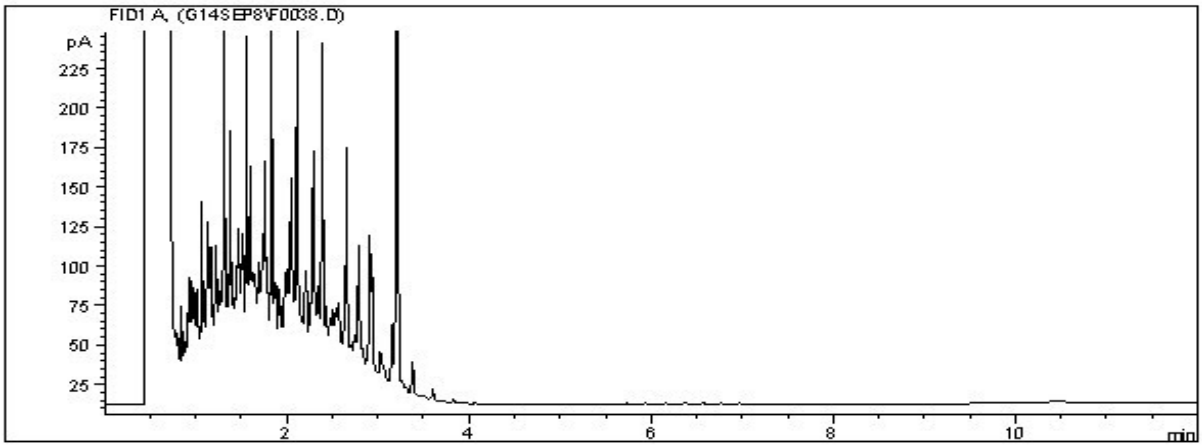
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

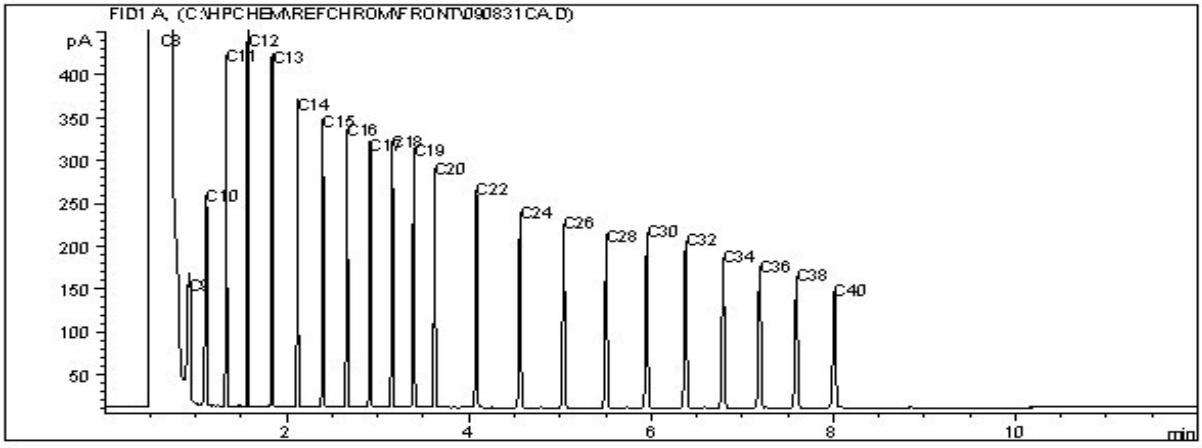
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56948

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-DUP-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

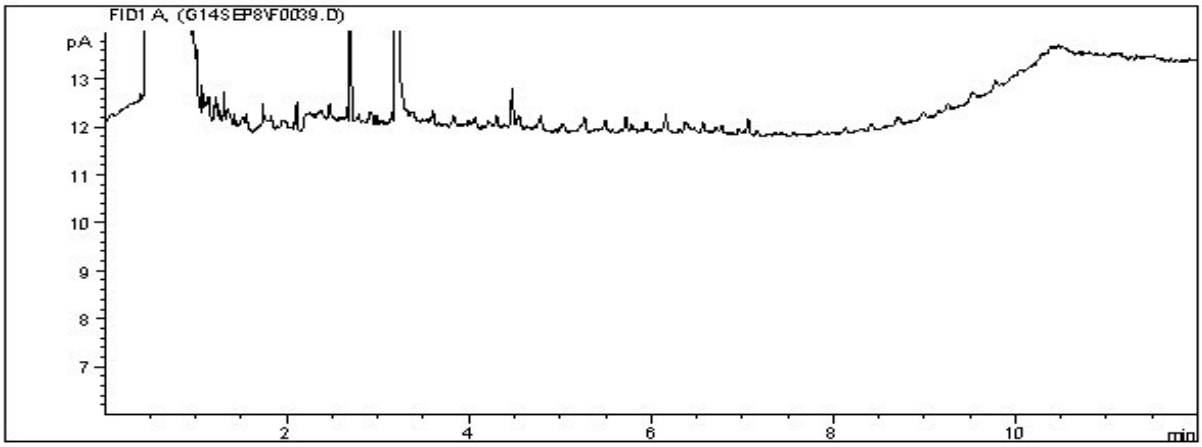
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

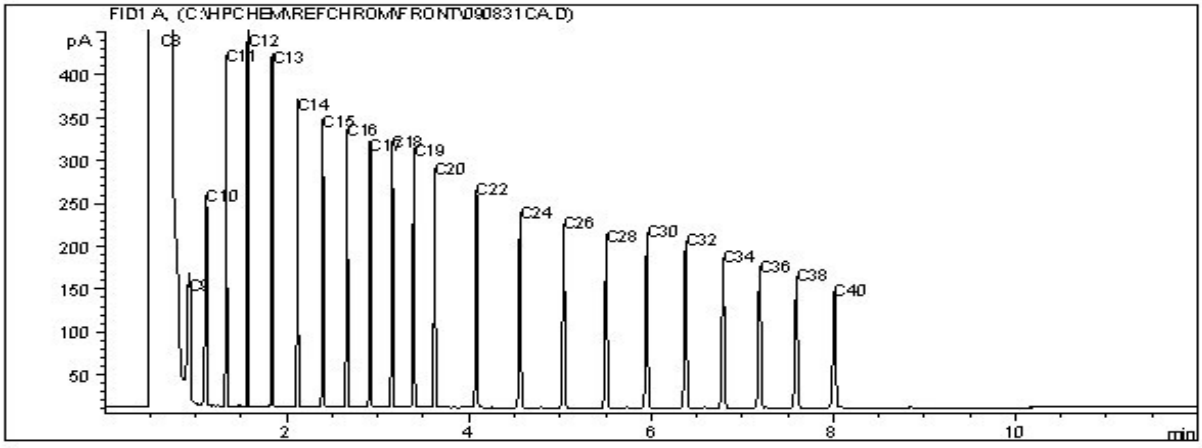
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56949

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-1M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

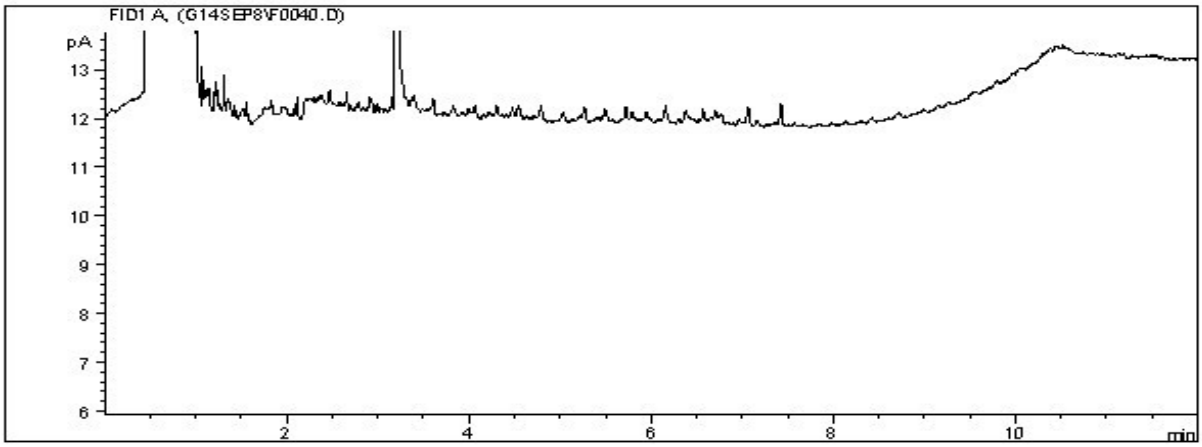
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

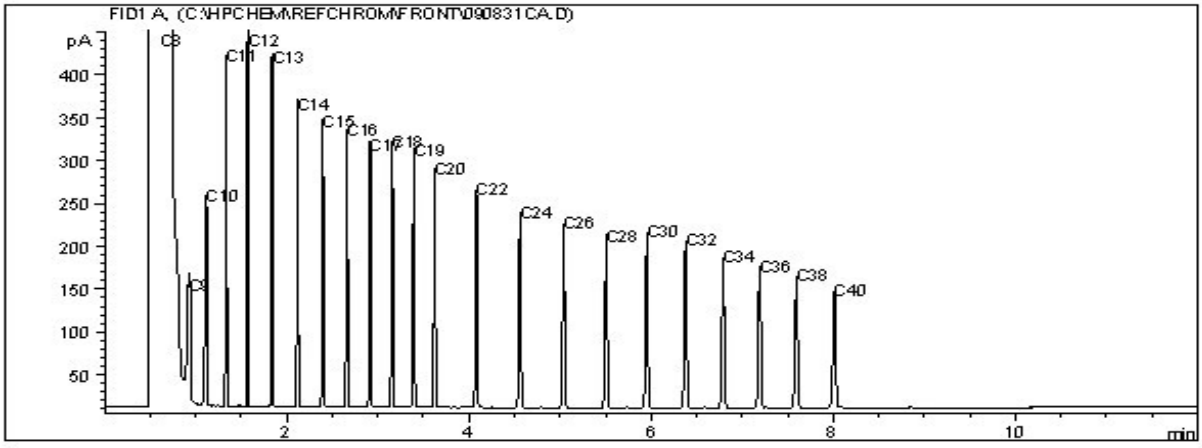
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56950

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-2M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

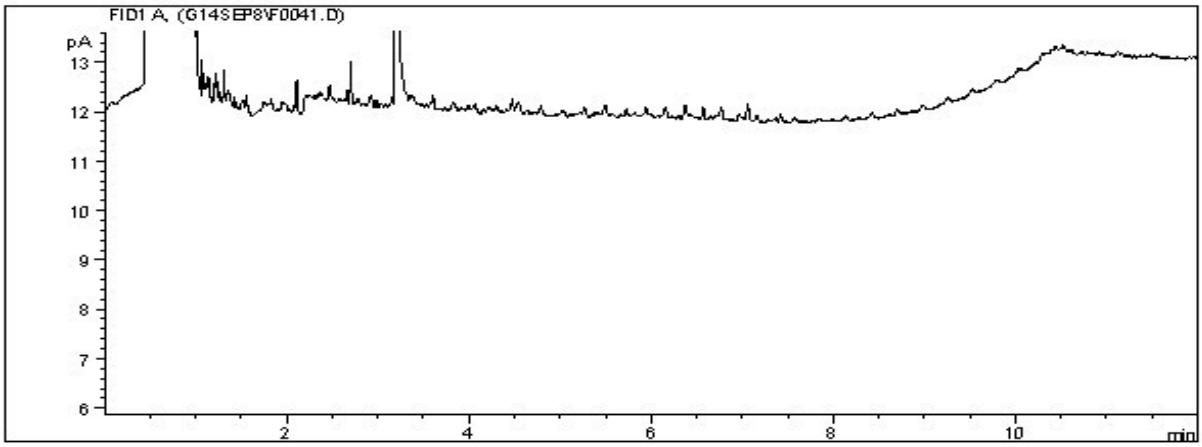
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

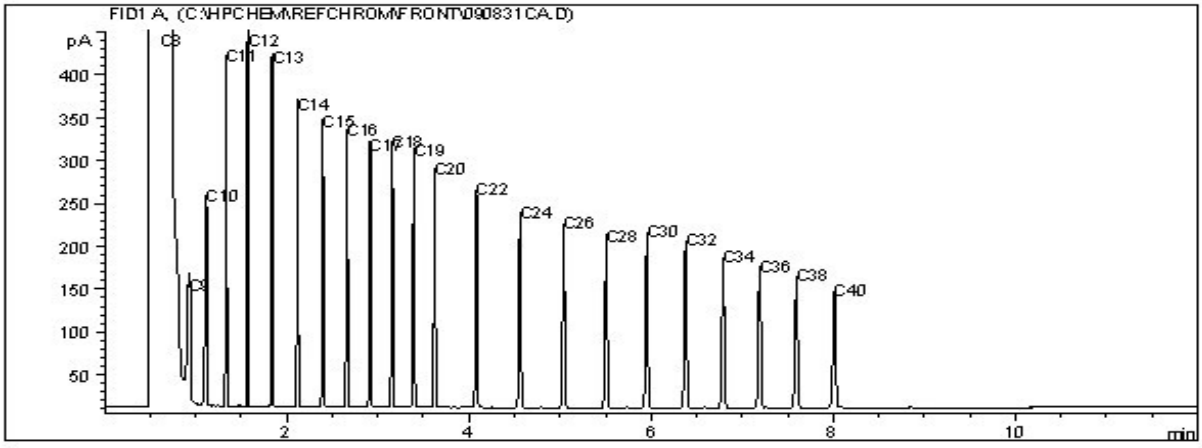
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56951

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-3M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

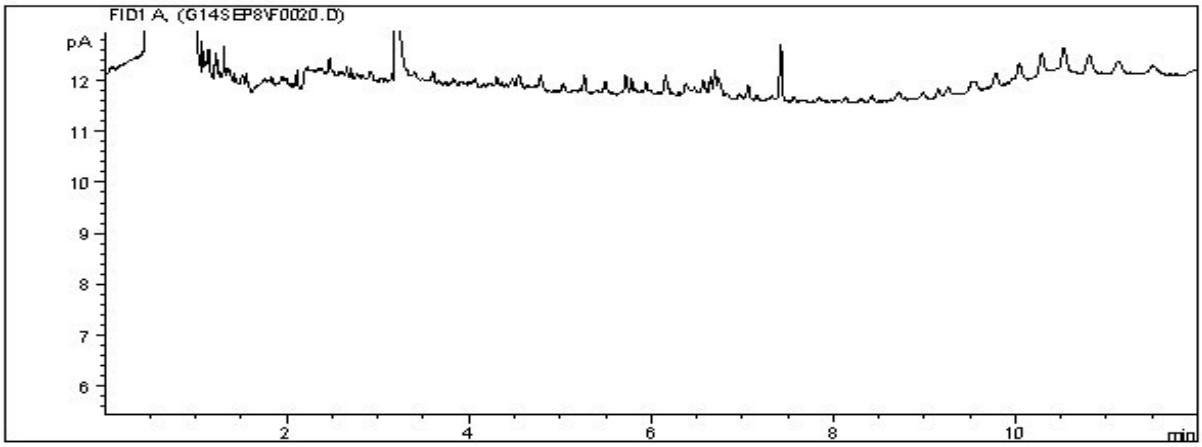
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

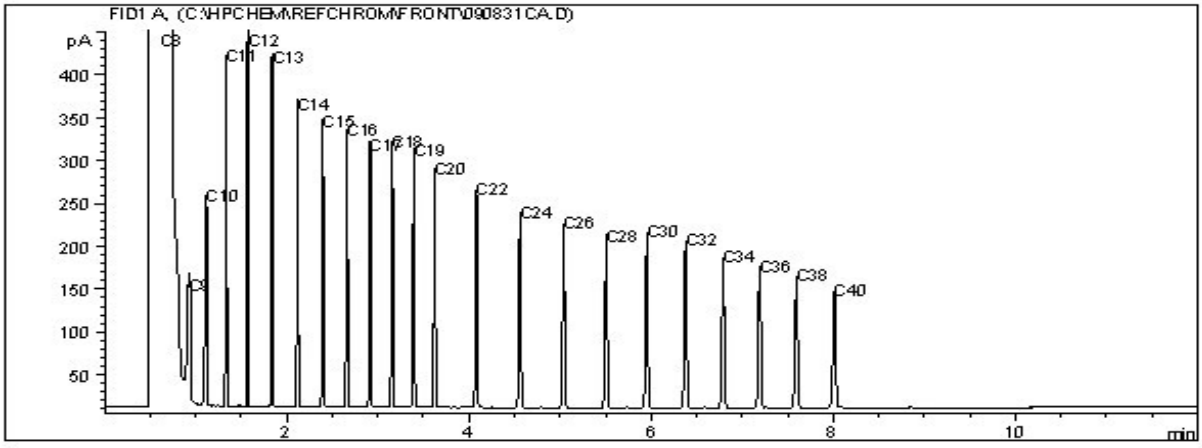
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56978

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-4M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

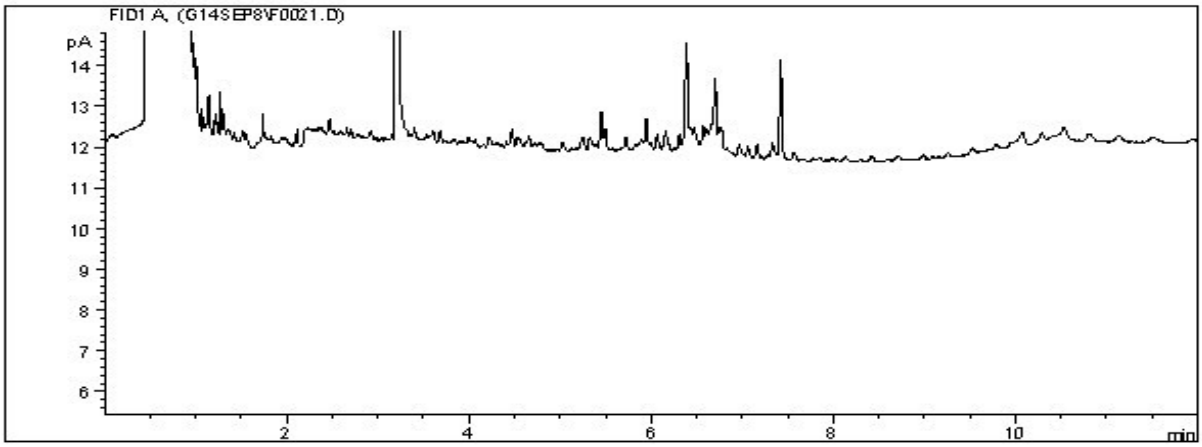
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

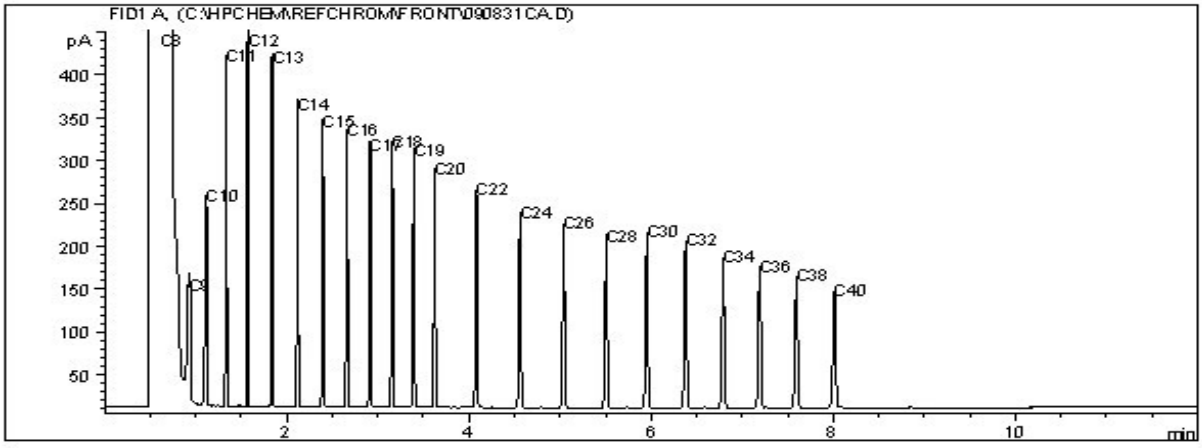
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56979

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-5M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

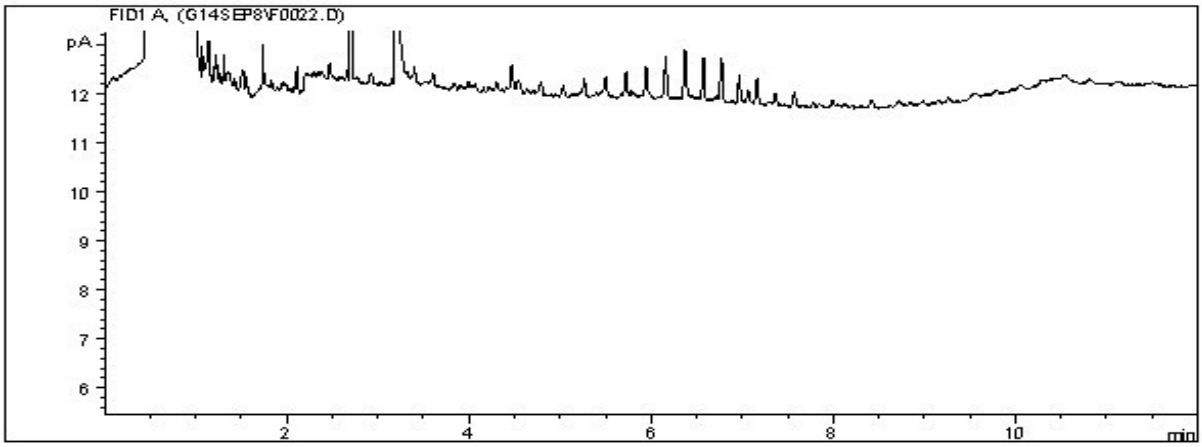
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

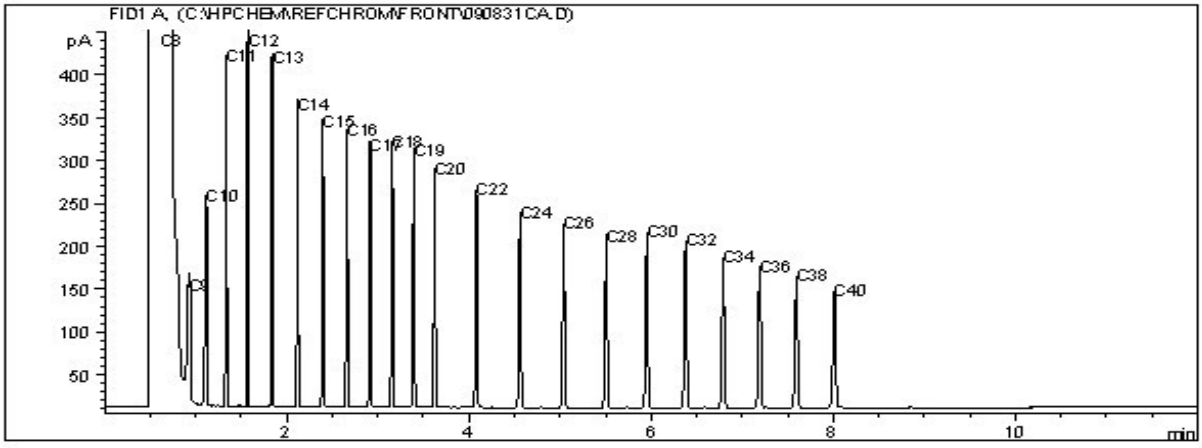
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56980

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-6M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

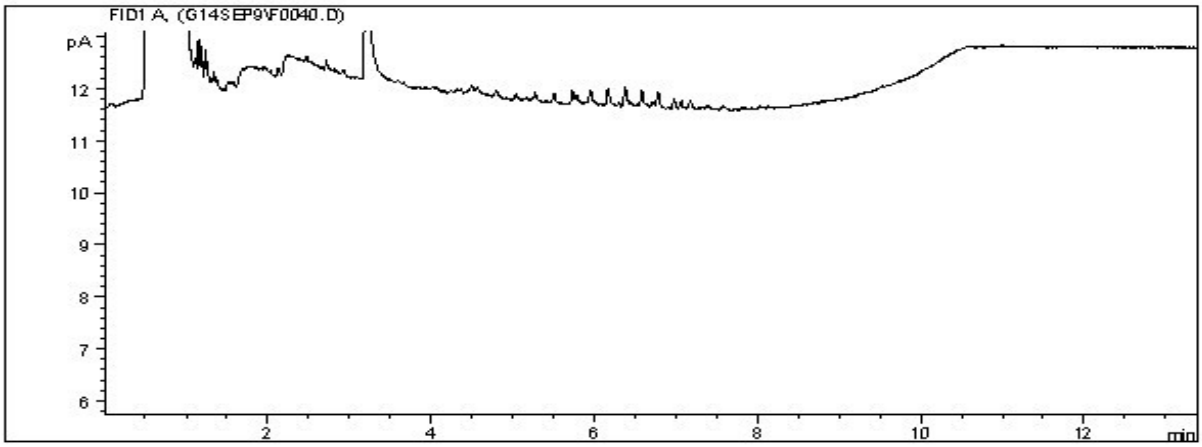
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

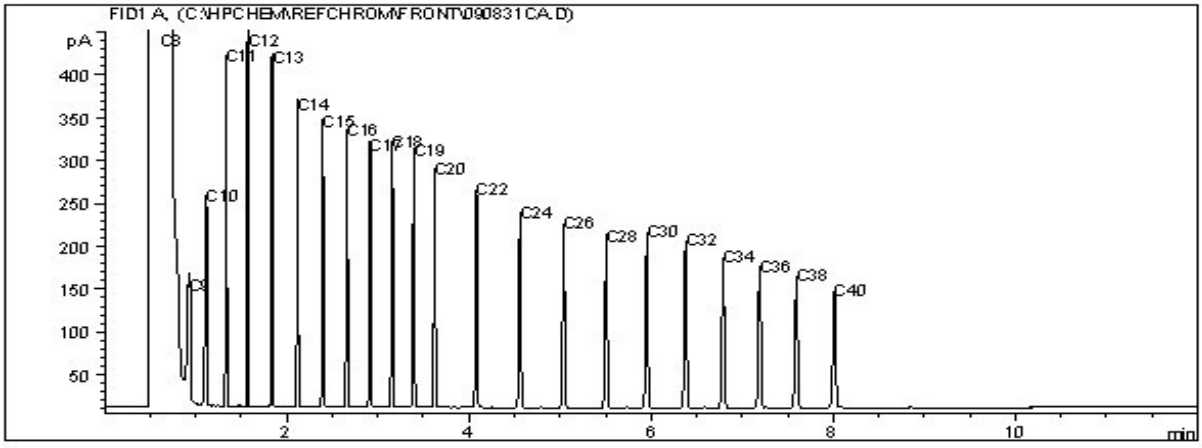
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56981

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

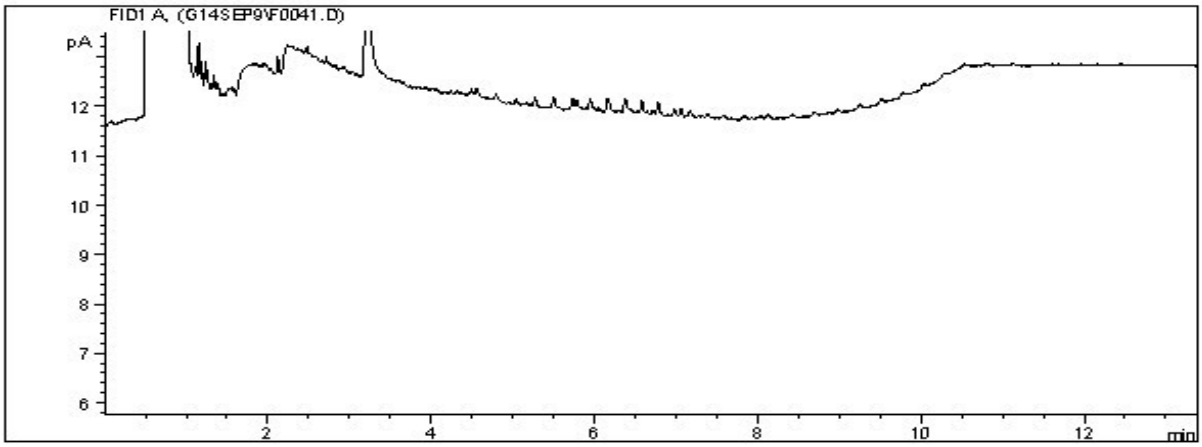
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

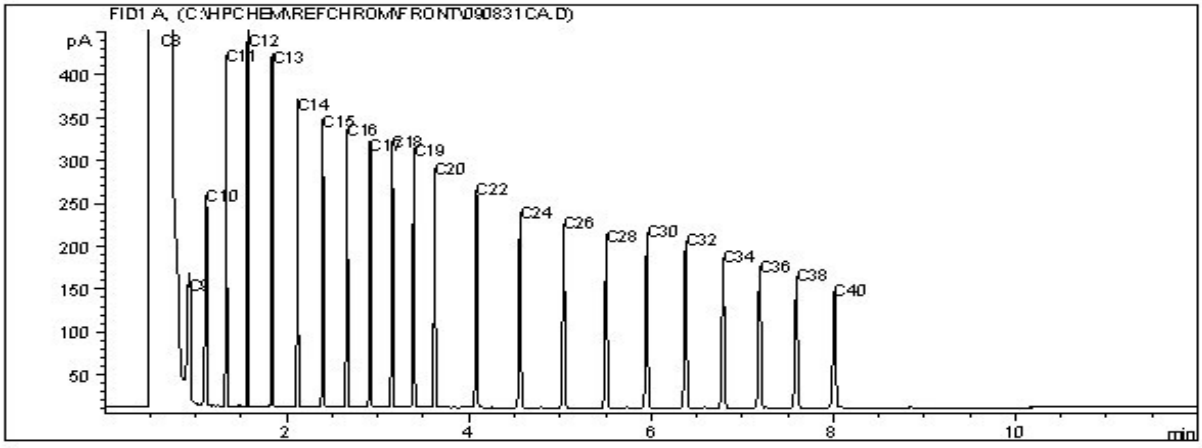
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56981

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

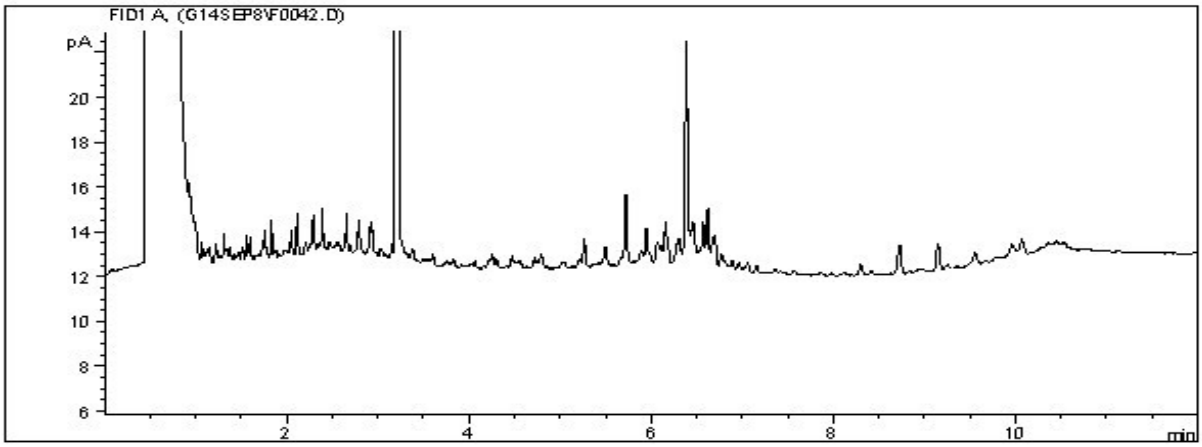
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

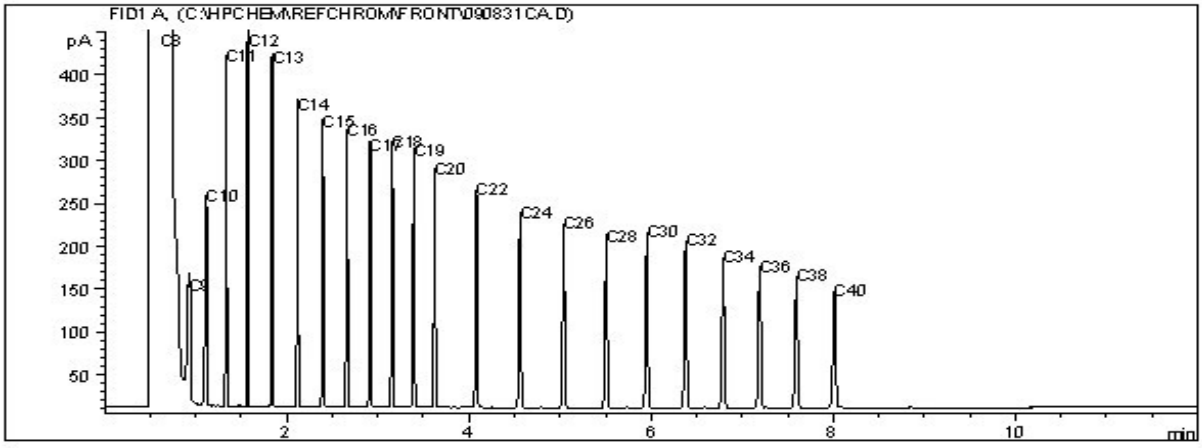
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56982

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-1M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

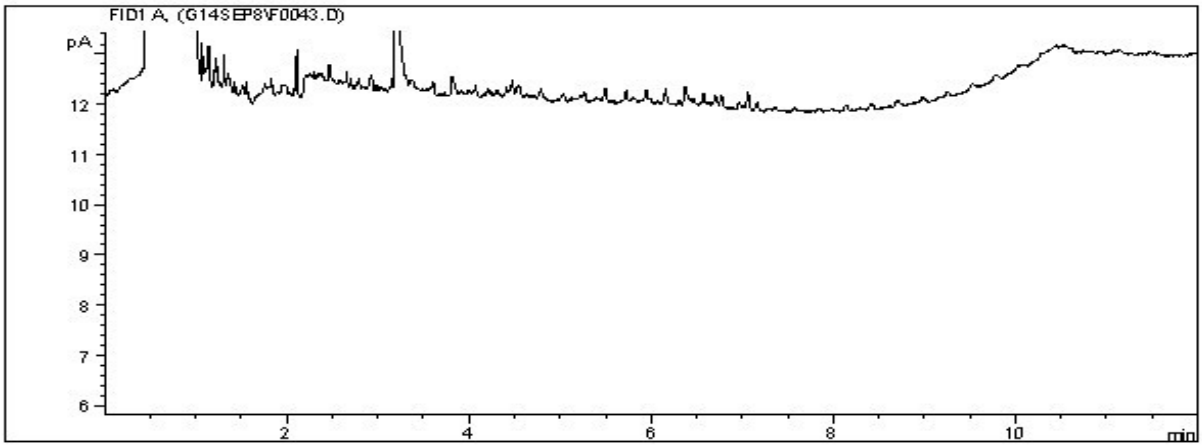
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

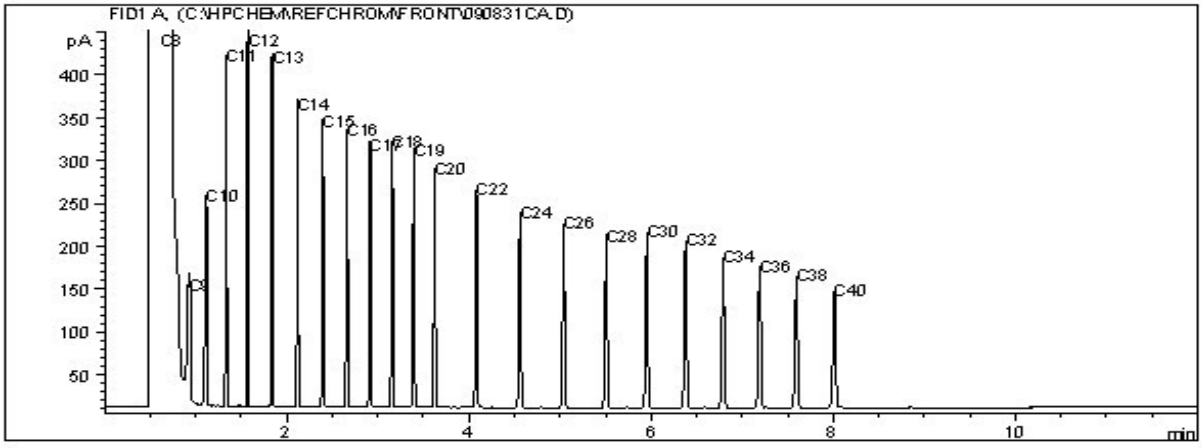
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56983

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-2M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

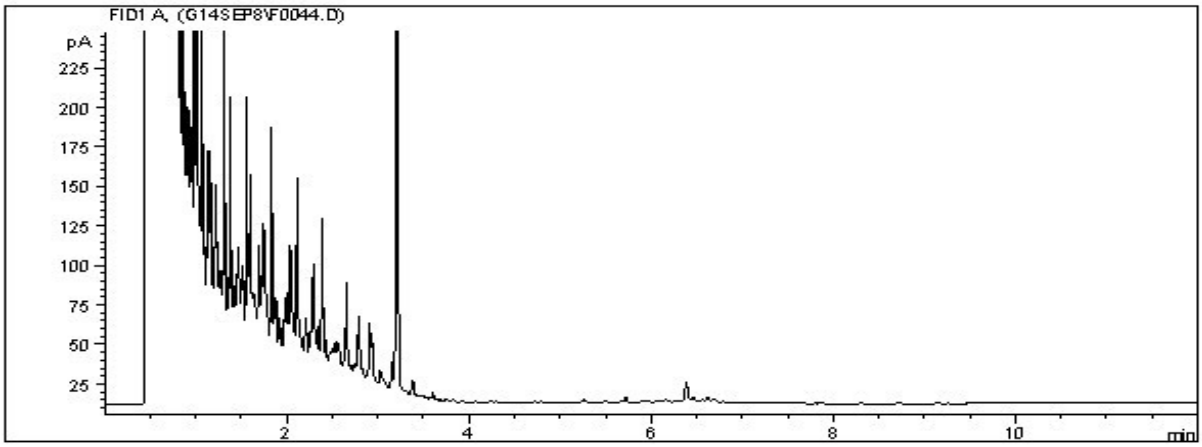
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

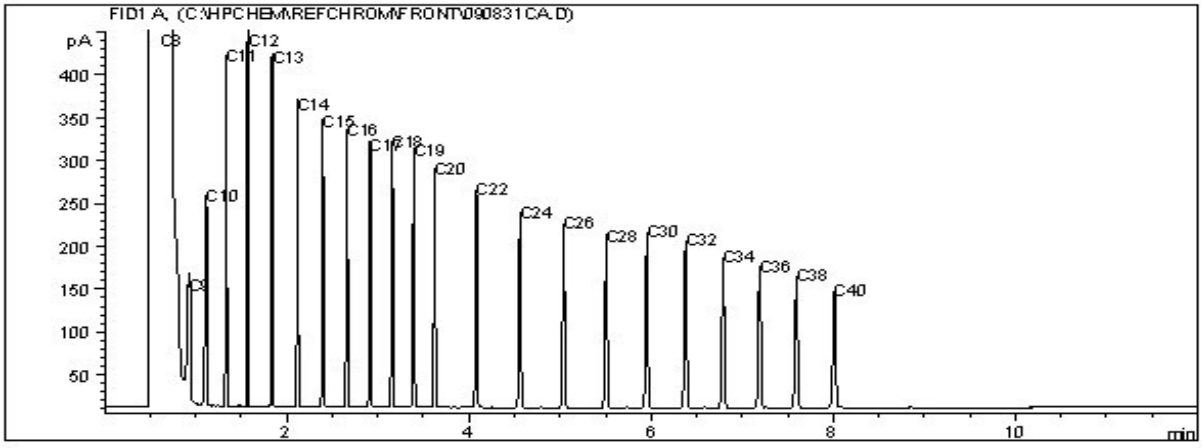
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56984

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-3M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

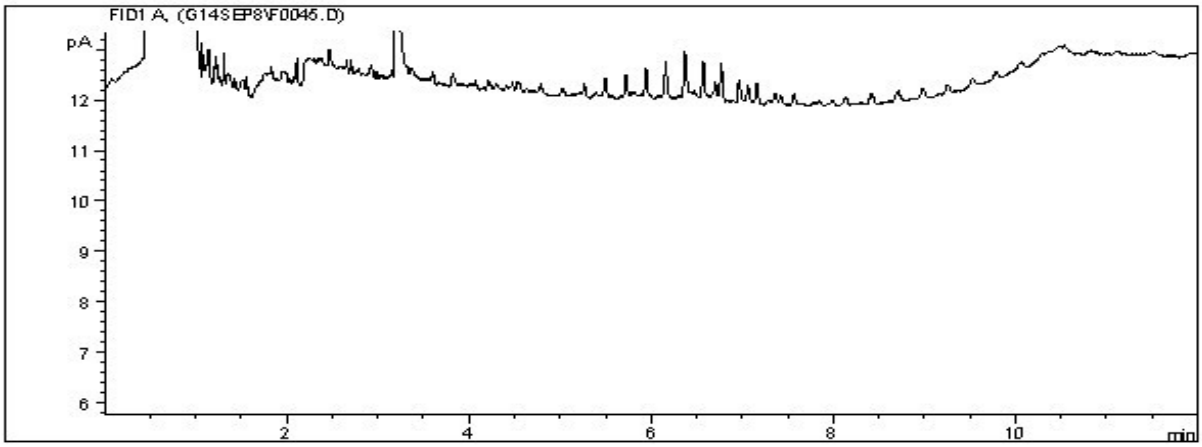
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

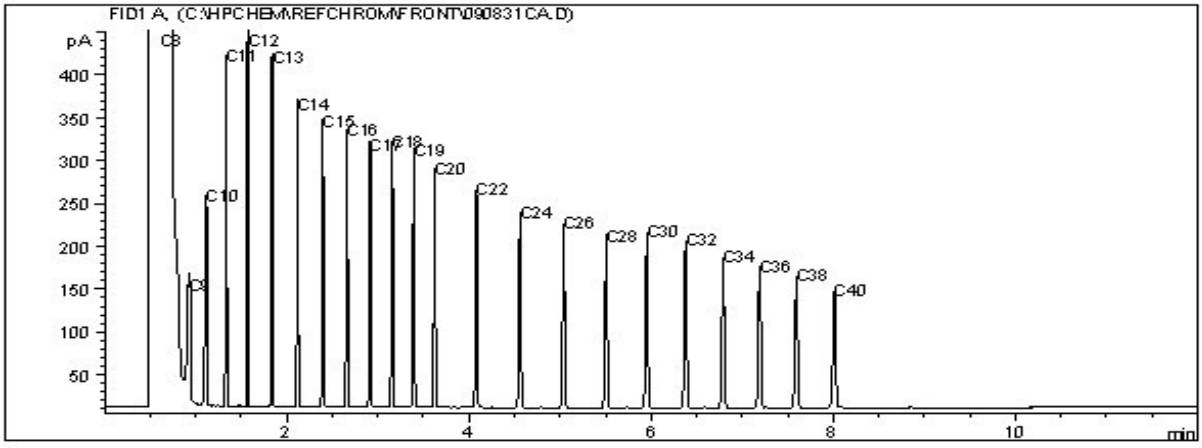
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56985

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

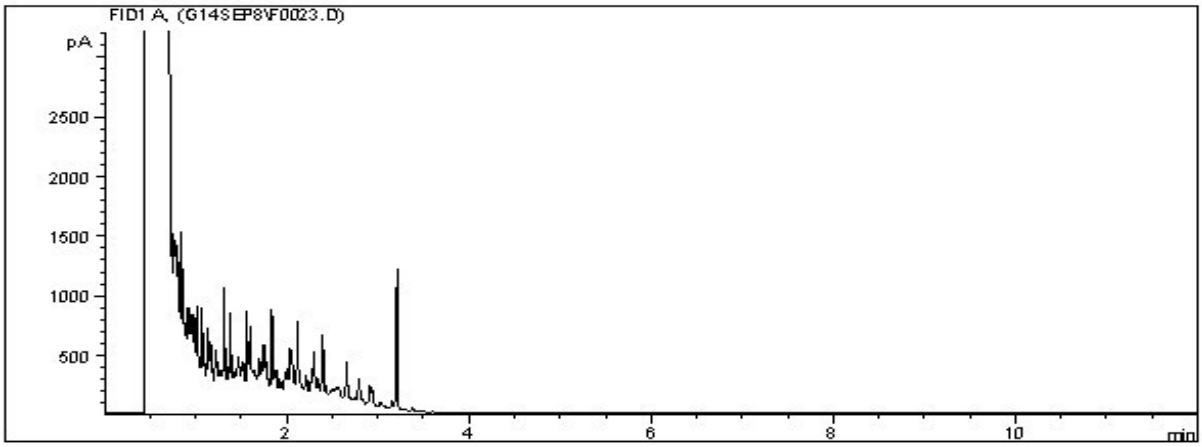
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

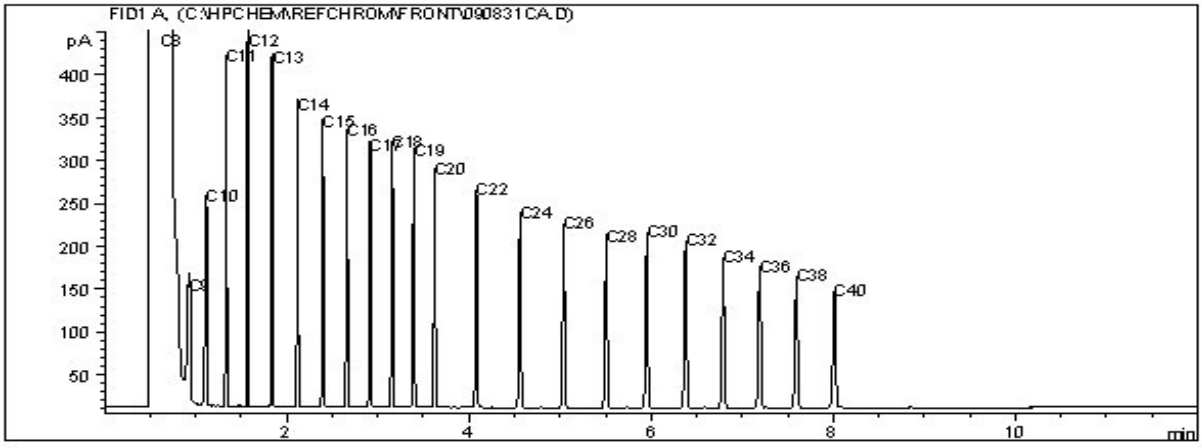
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56986

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-4-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

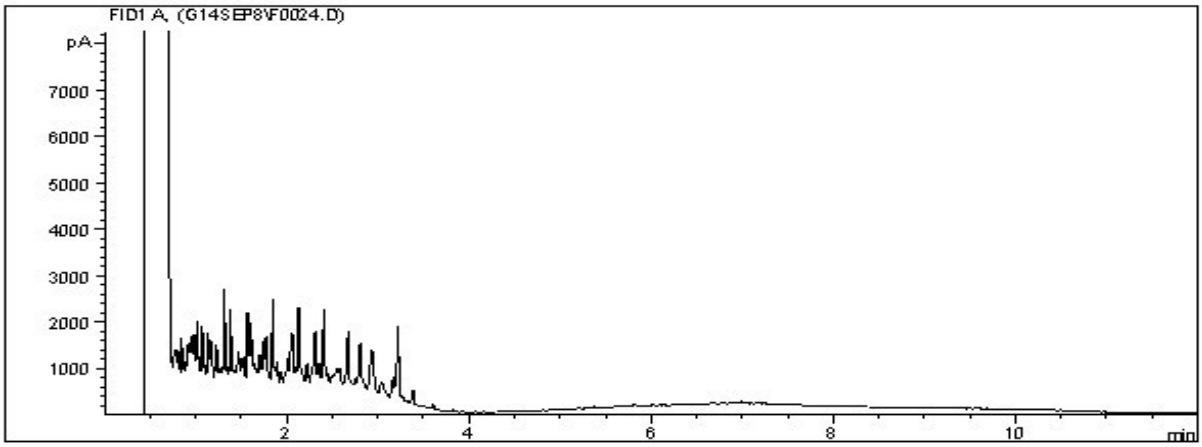
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

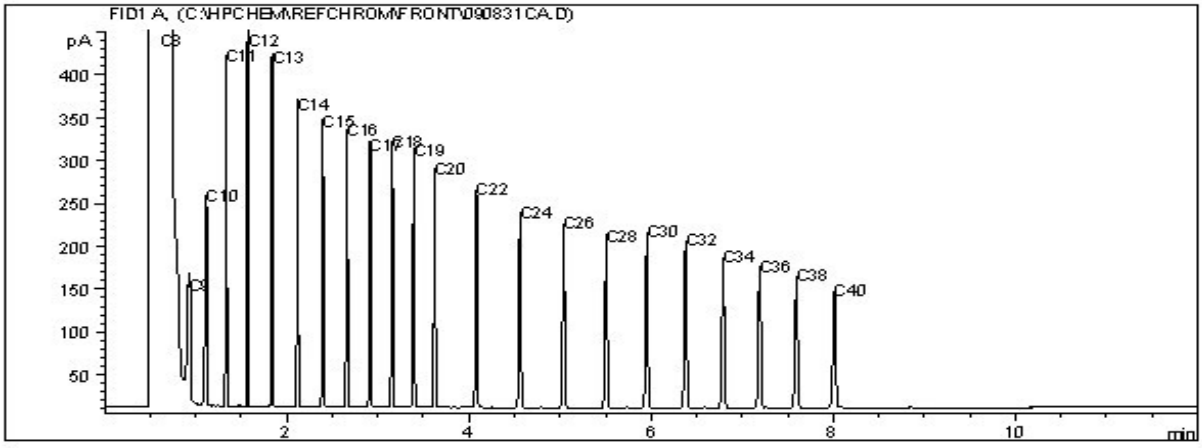
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56987

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-5-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

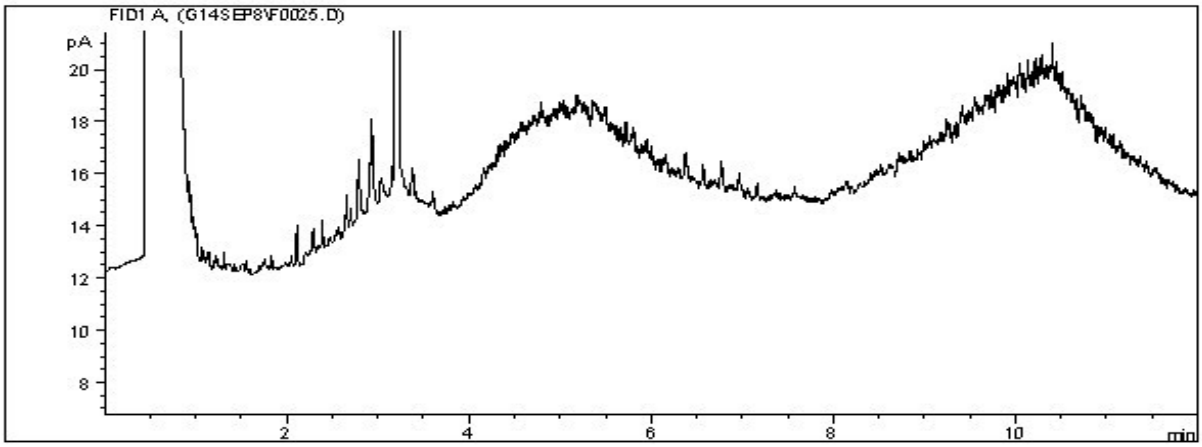
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

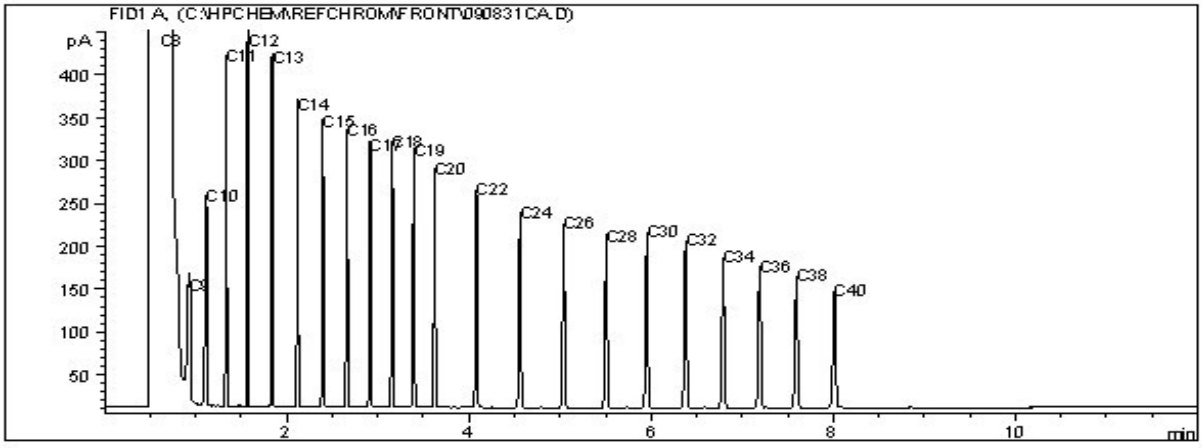
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56988

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-6-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

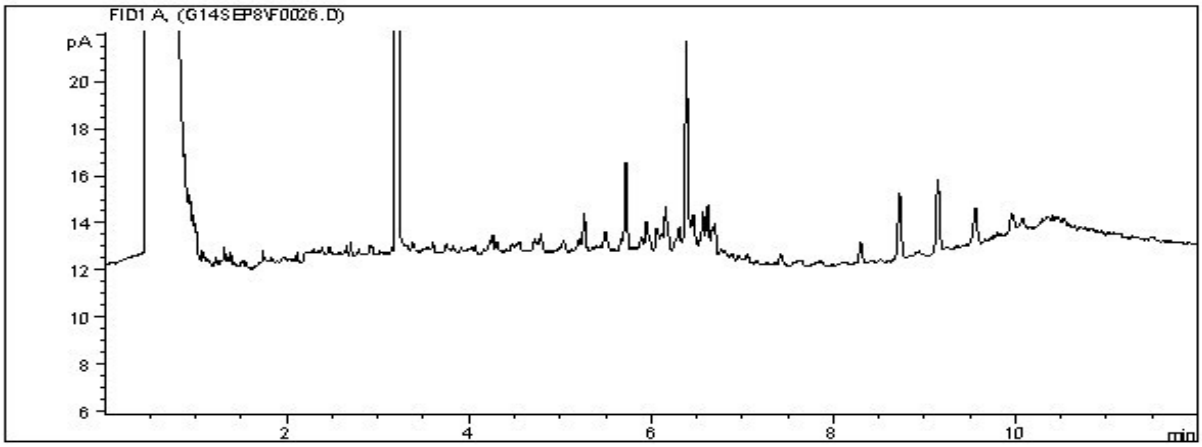
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

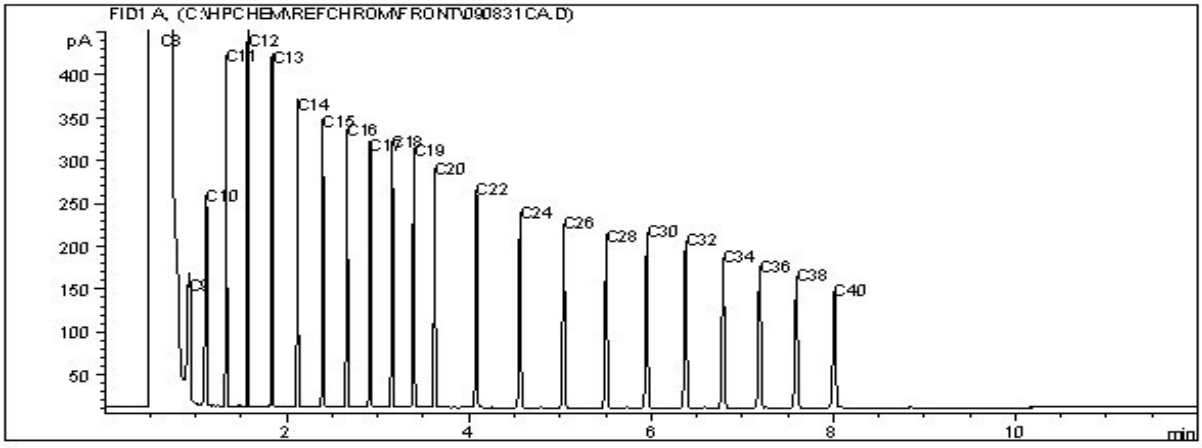
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q56989

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-6-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

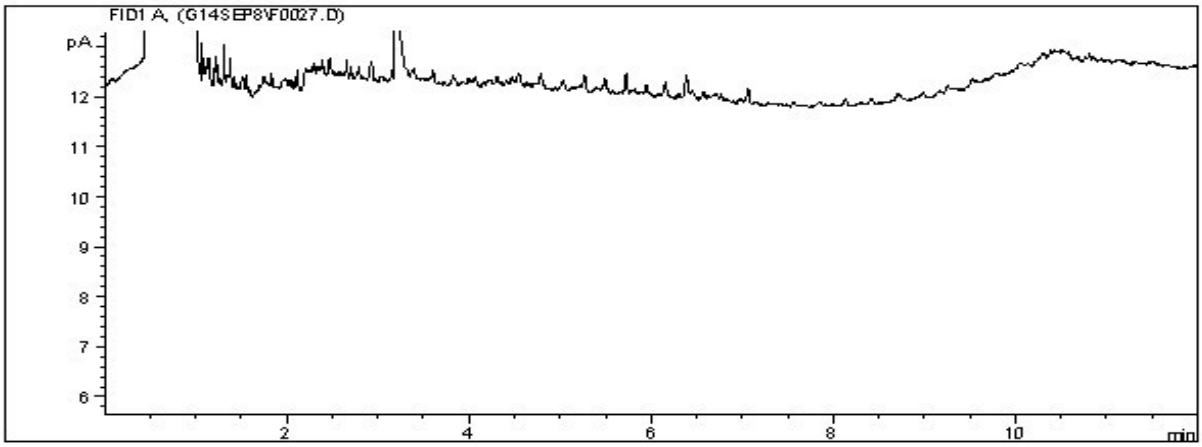
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

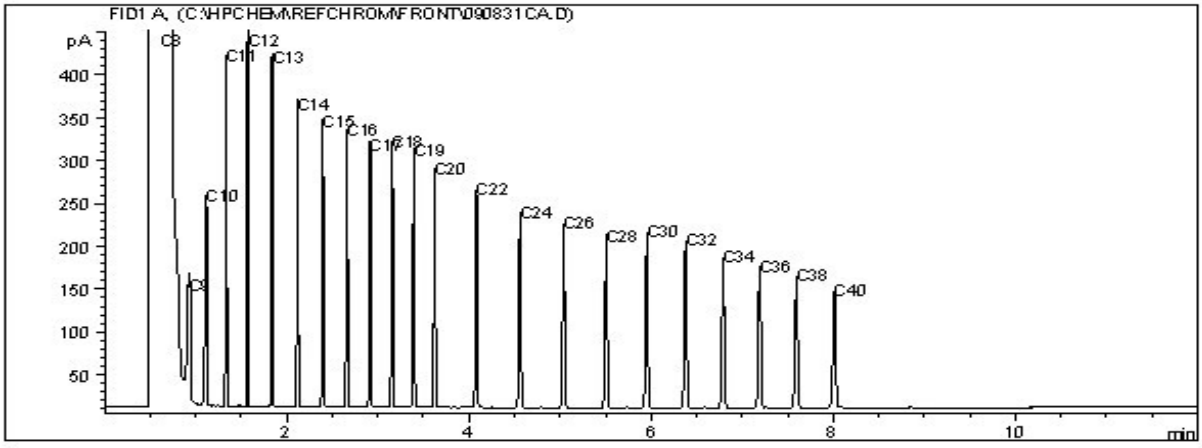
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57022

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-7-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

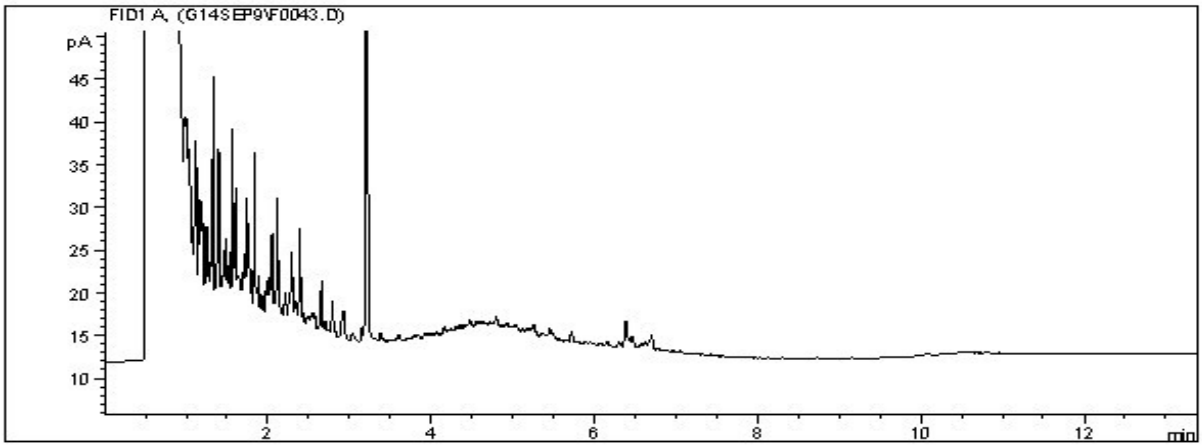
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

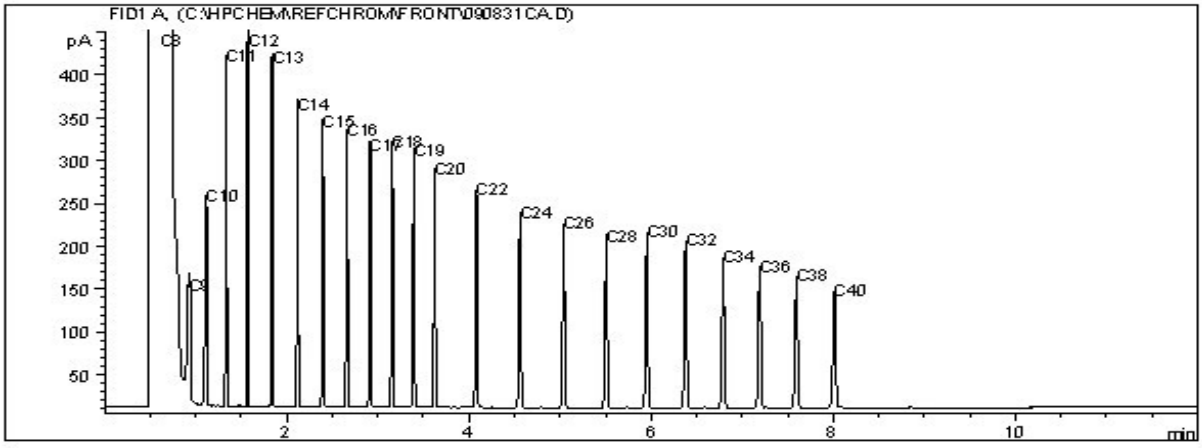
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57023

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-8-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

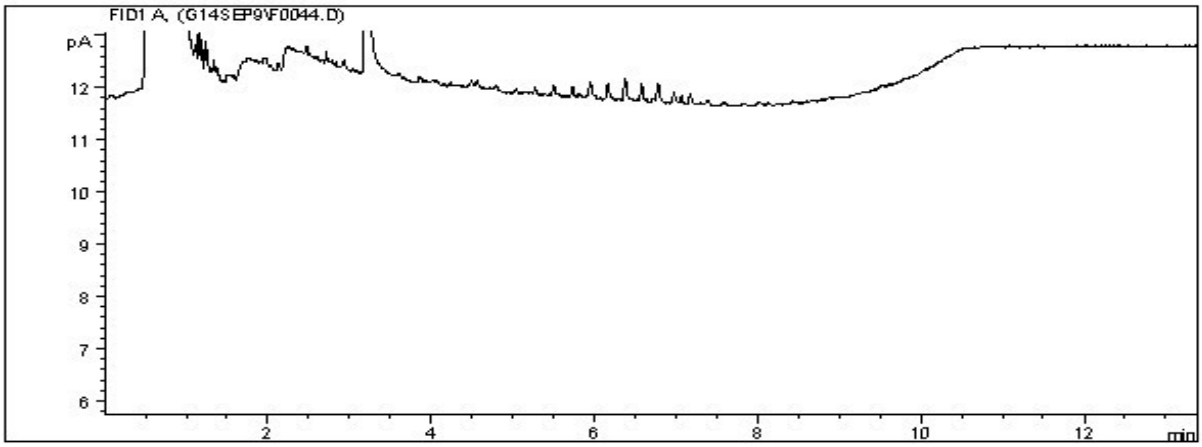
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

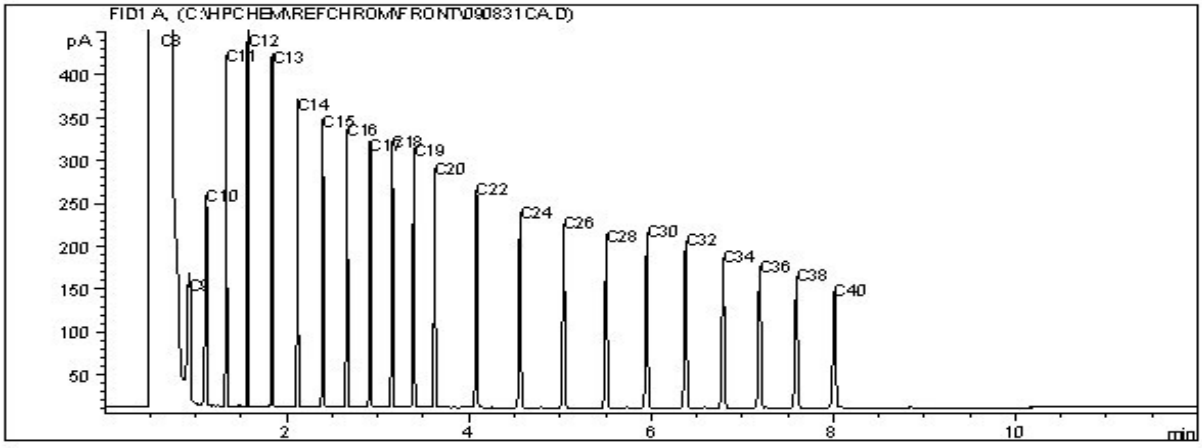
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57029

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09TP4-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

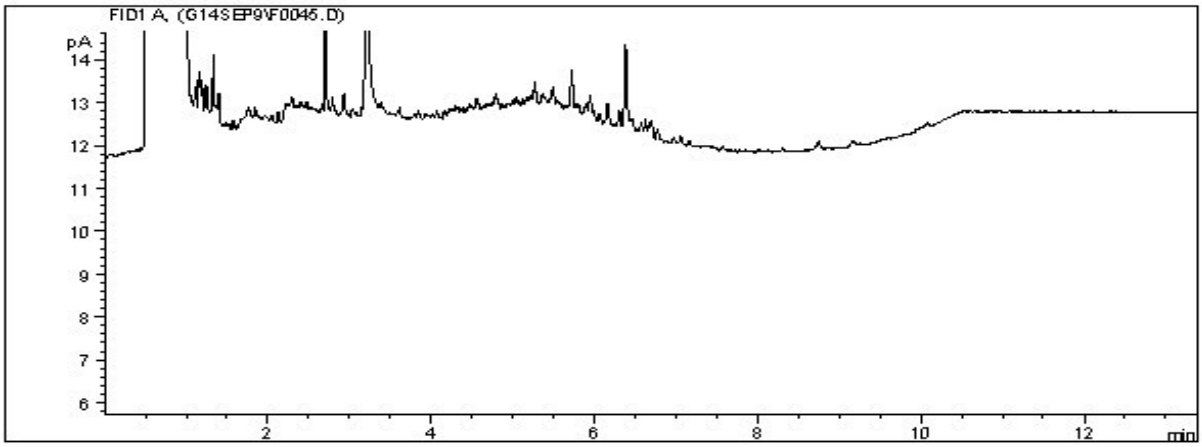
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

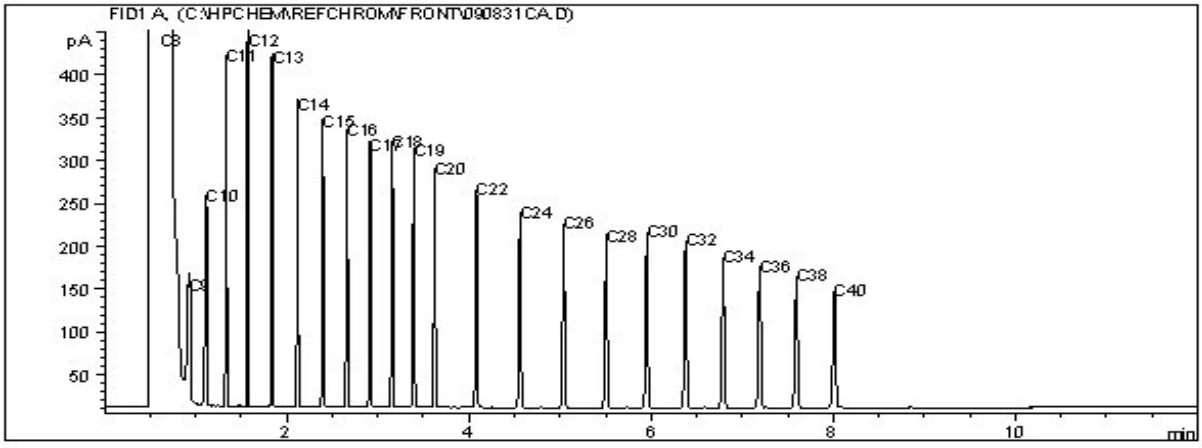
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57032

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 6-09TP1-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

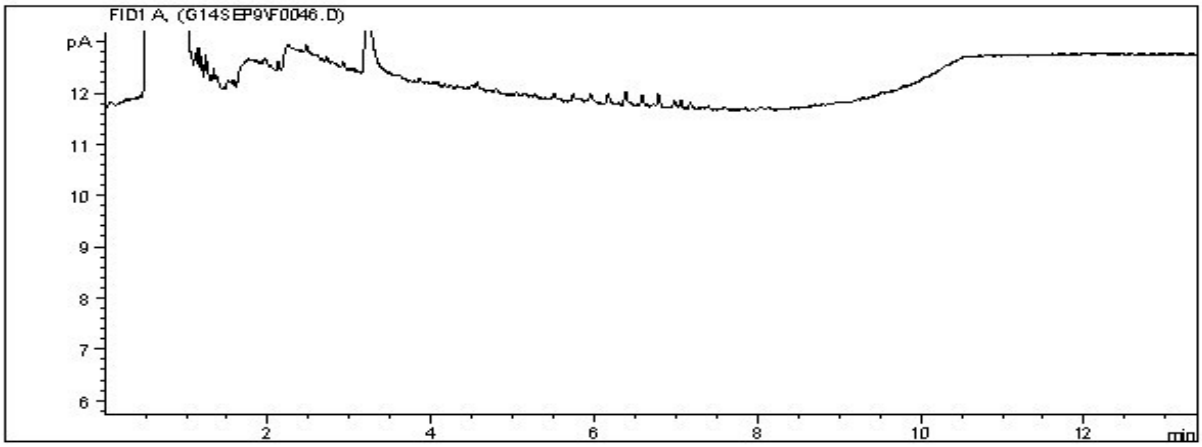
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

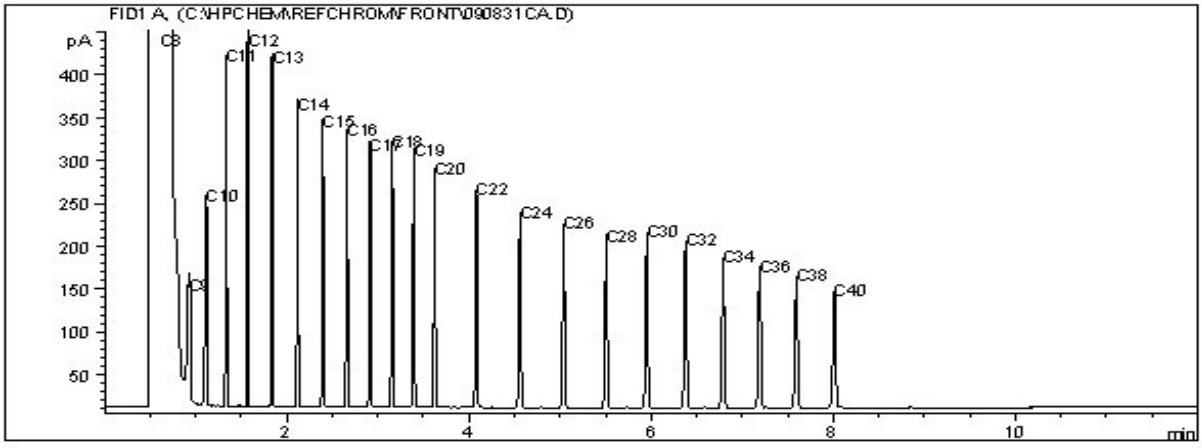
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57059

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09-TP1-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

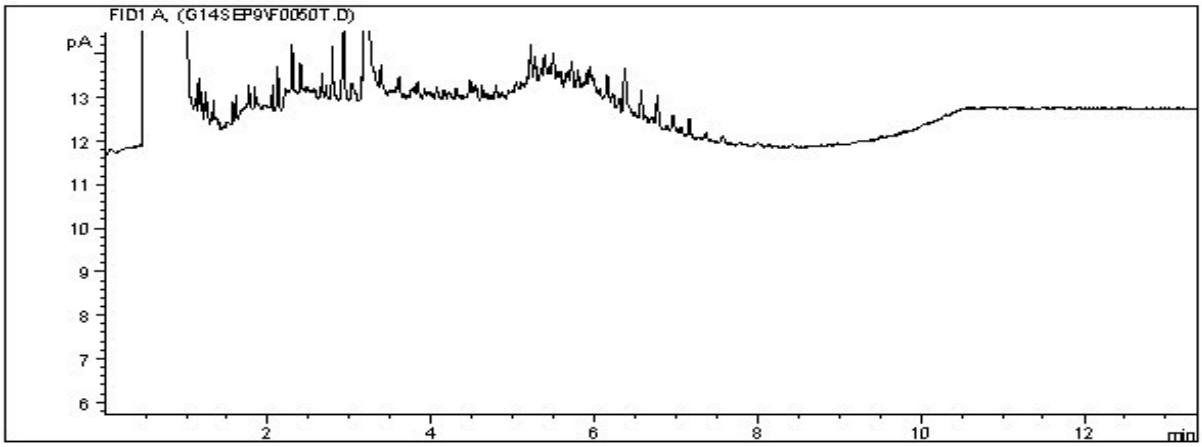
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

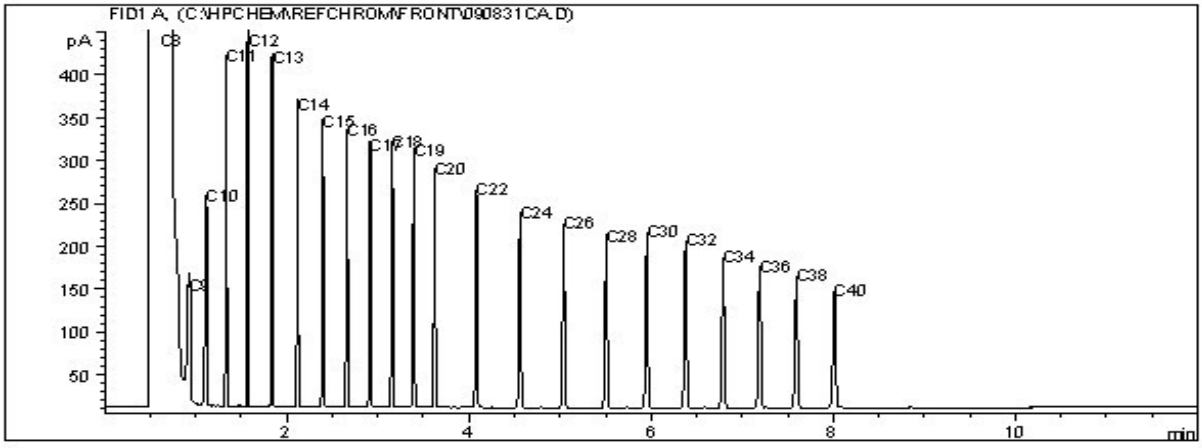
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57062

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09-TP2-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

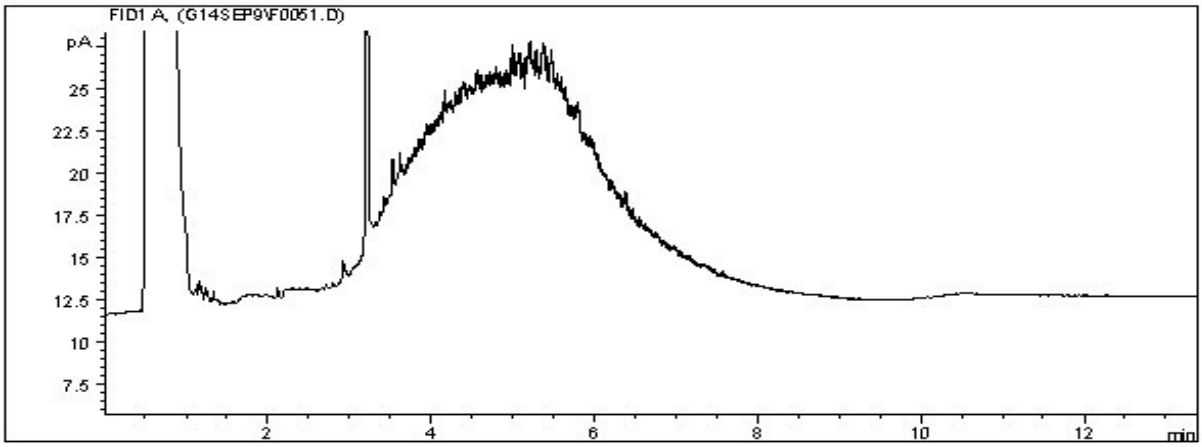
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

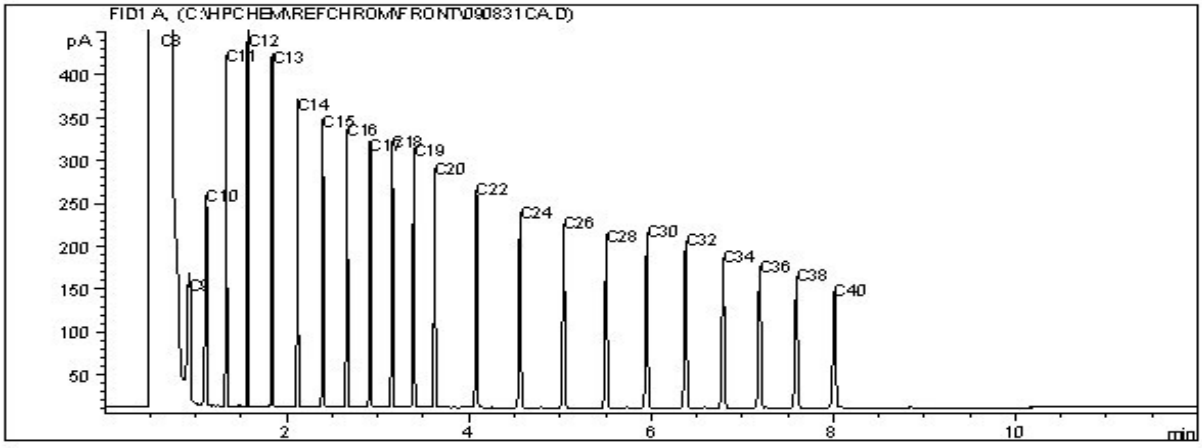
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57065

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09-TP3-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

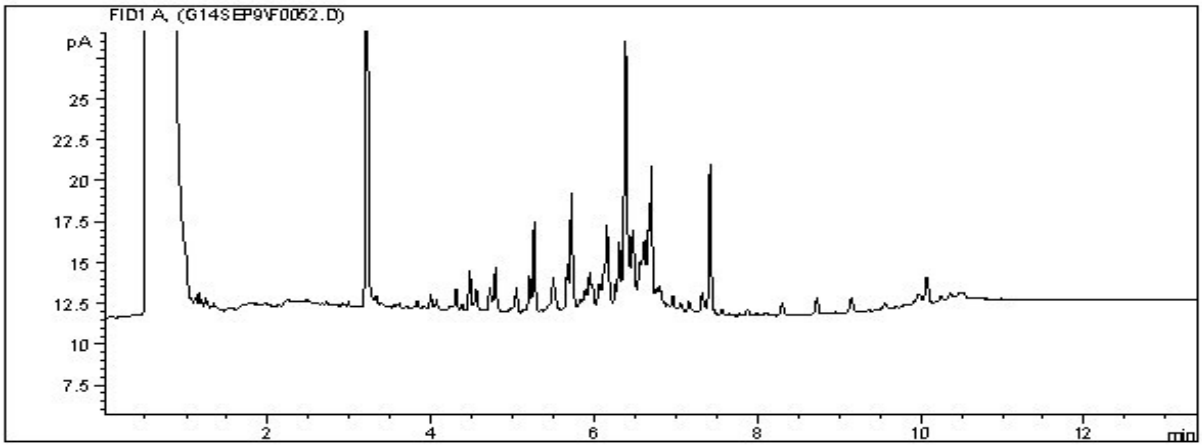
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

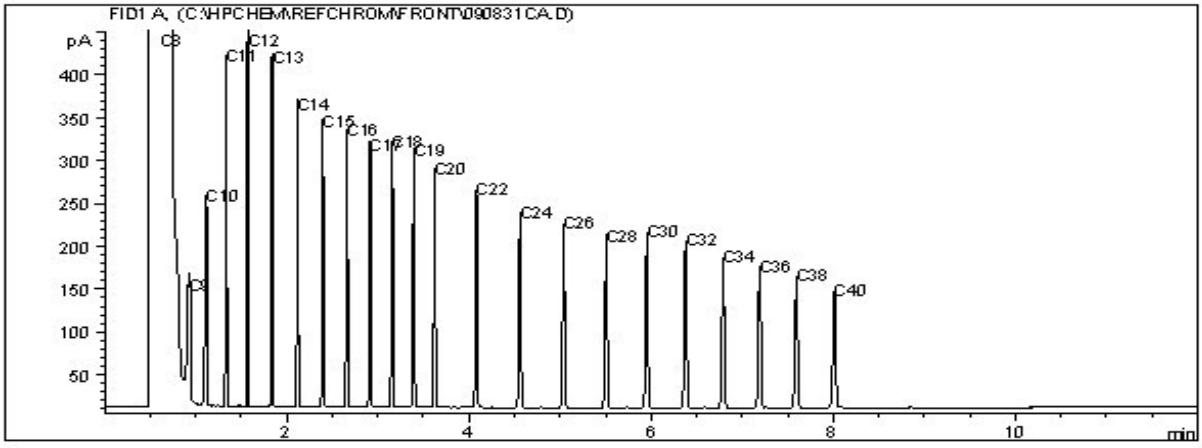
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57101

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP1-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

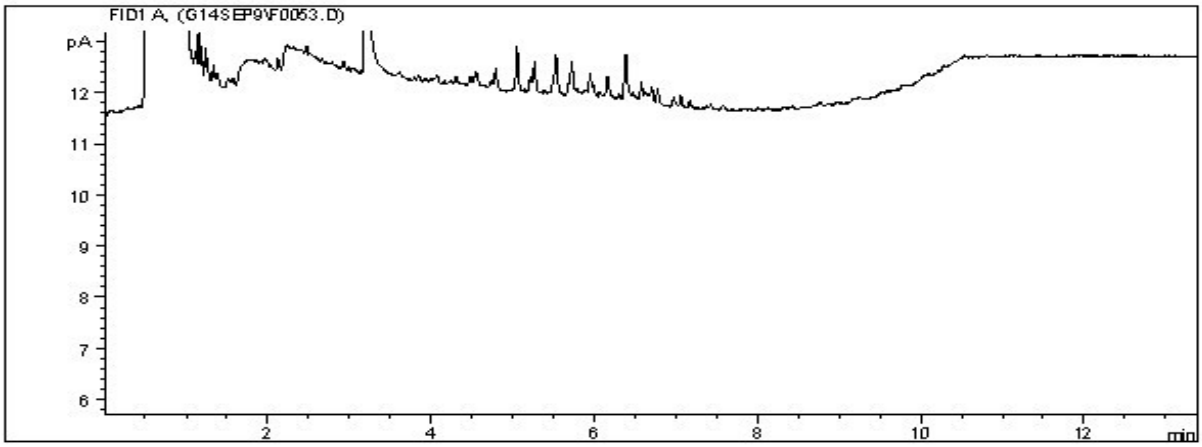
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

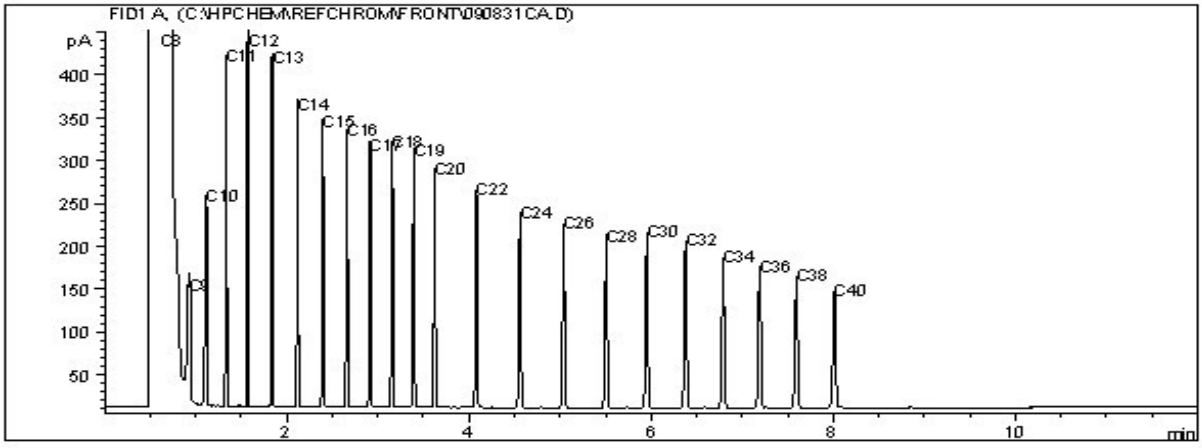
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57103

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP2-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

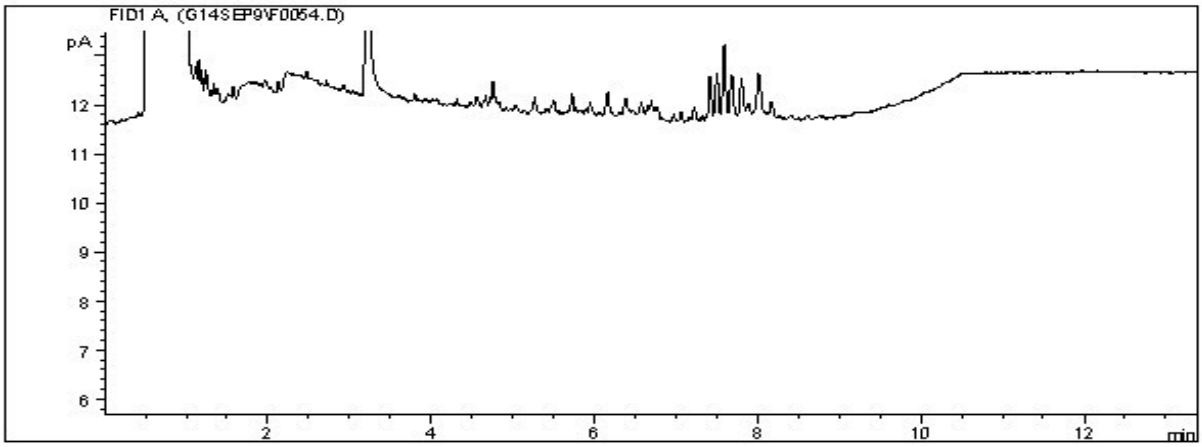
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

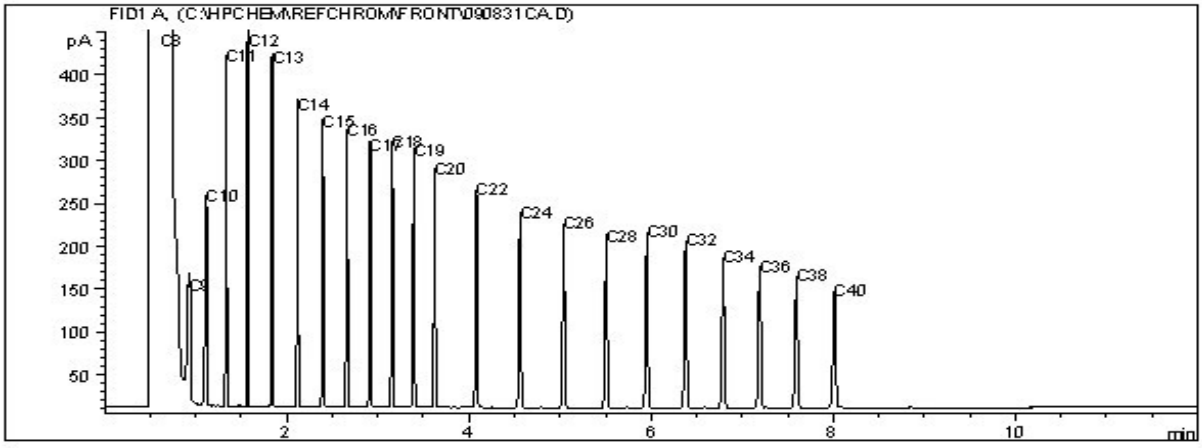
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57104

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP3-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

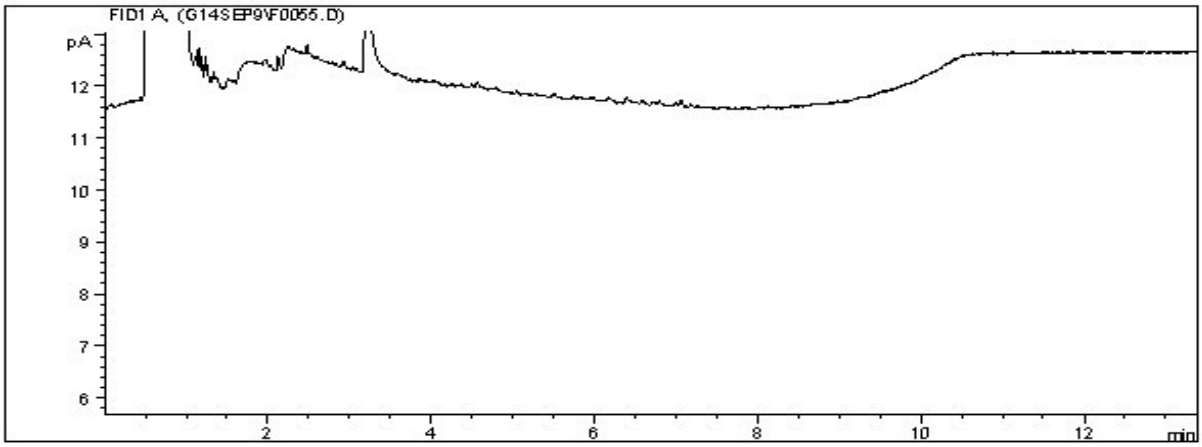
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

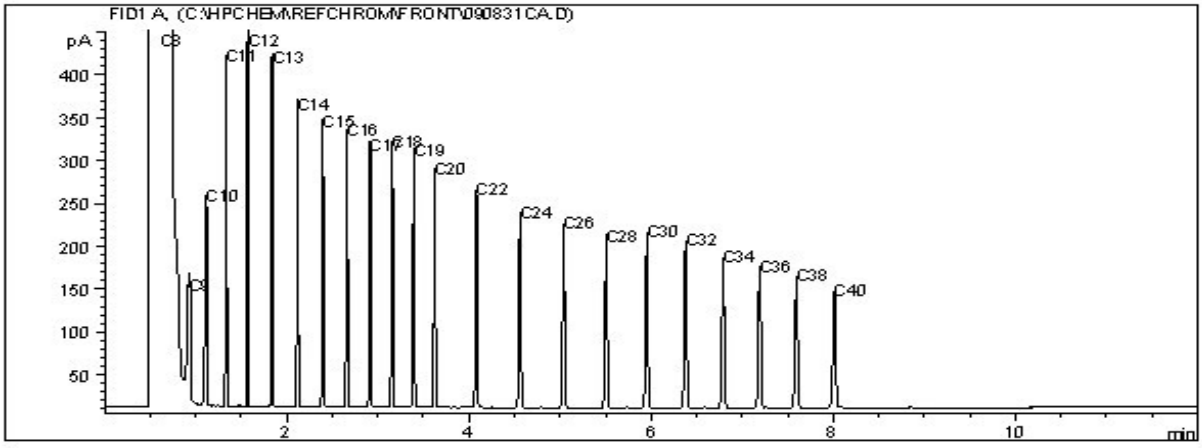
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57106

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP4

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

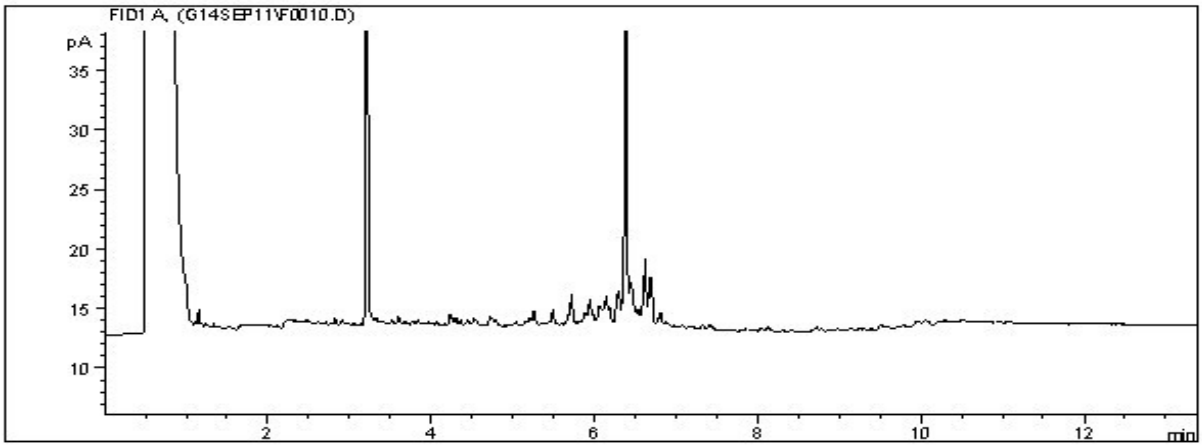
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

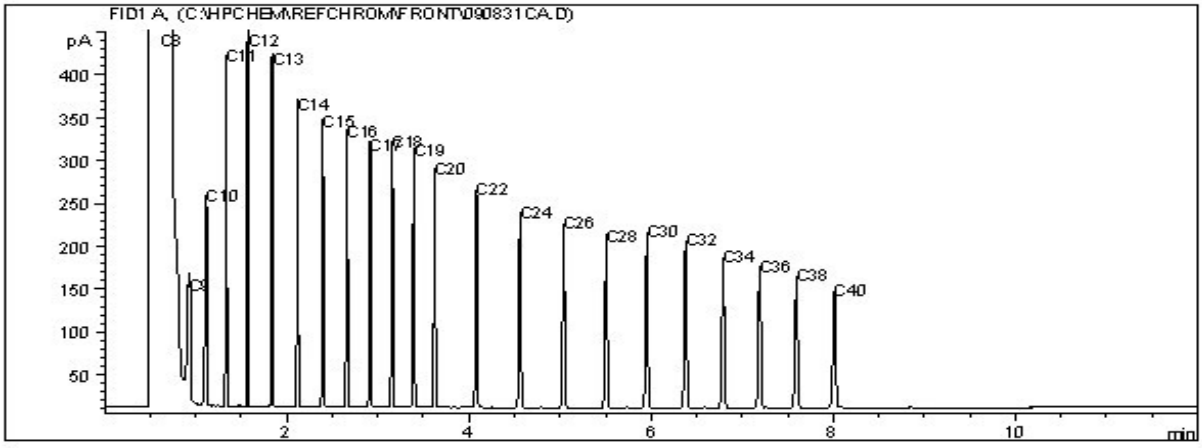
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57107

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP5-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

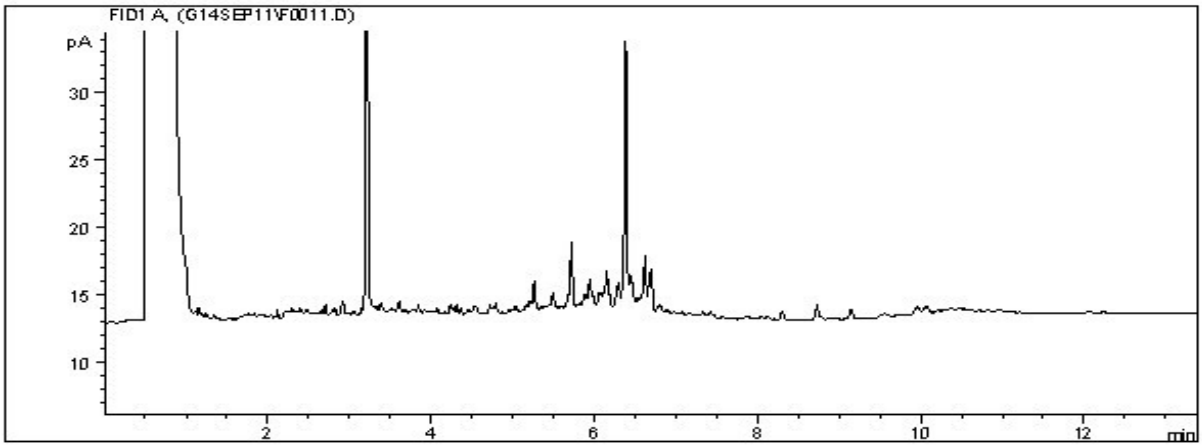
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

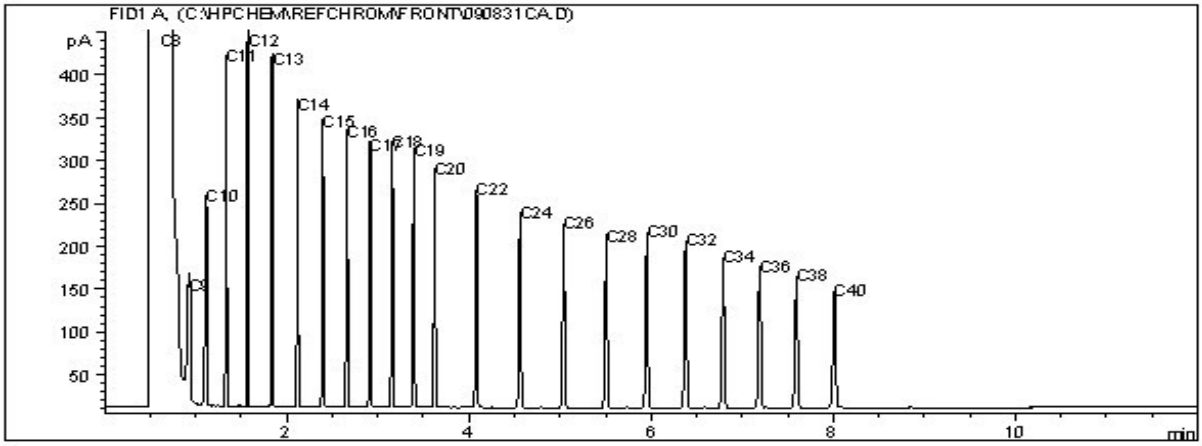
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57107

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP5-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

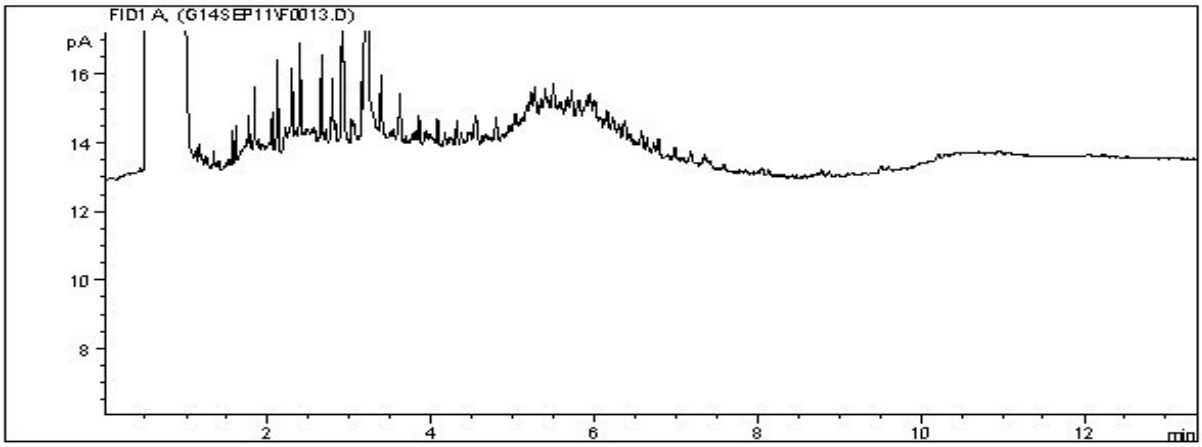
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

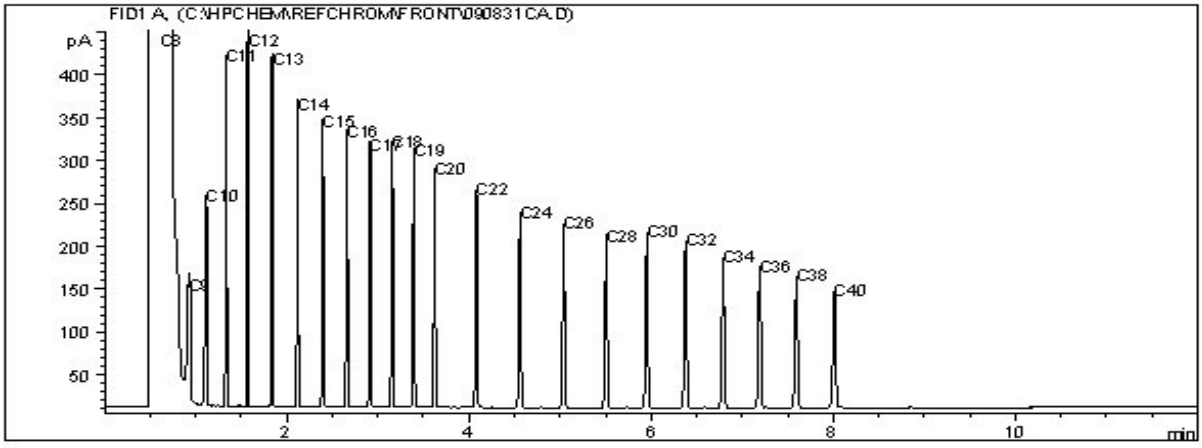
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57108

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP6-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

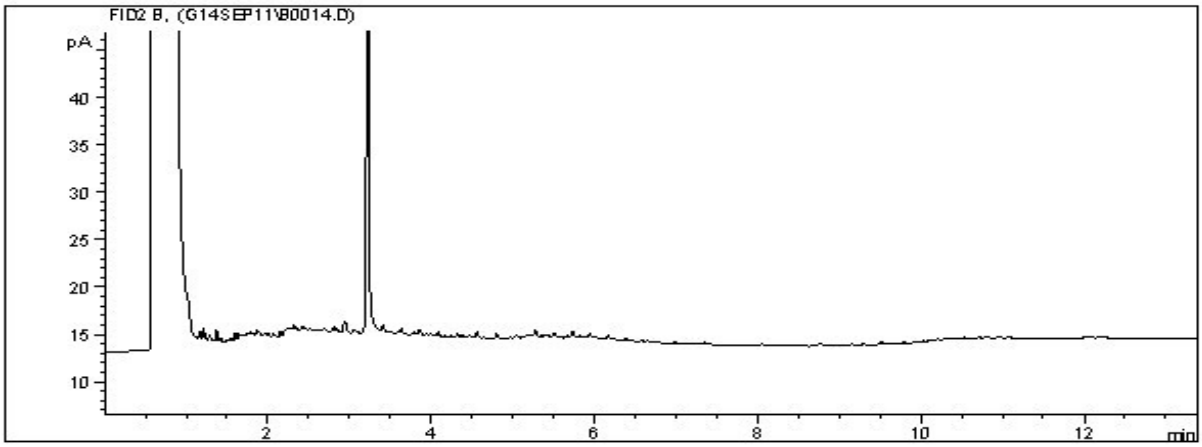
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

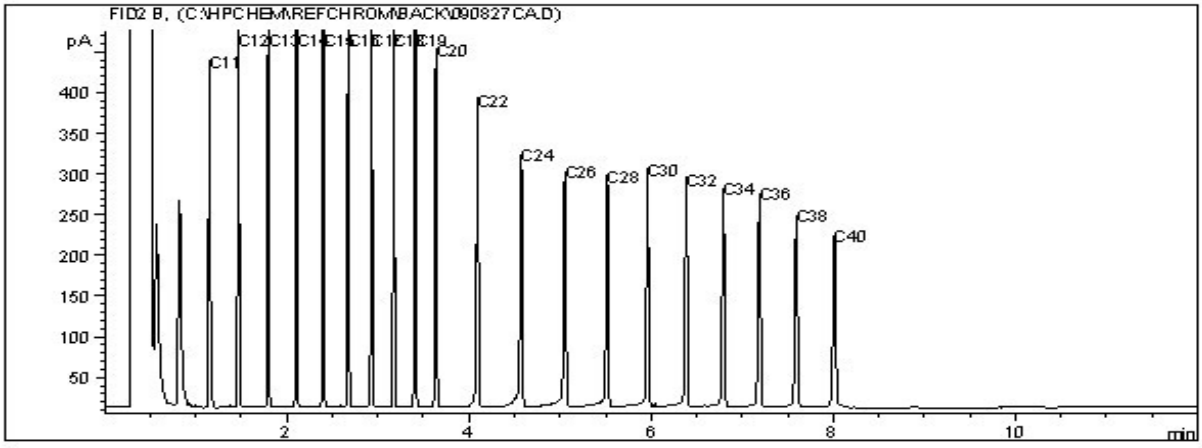
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57109

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP7-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

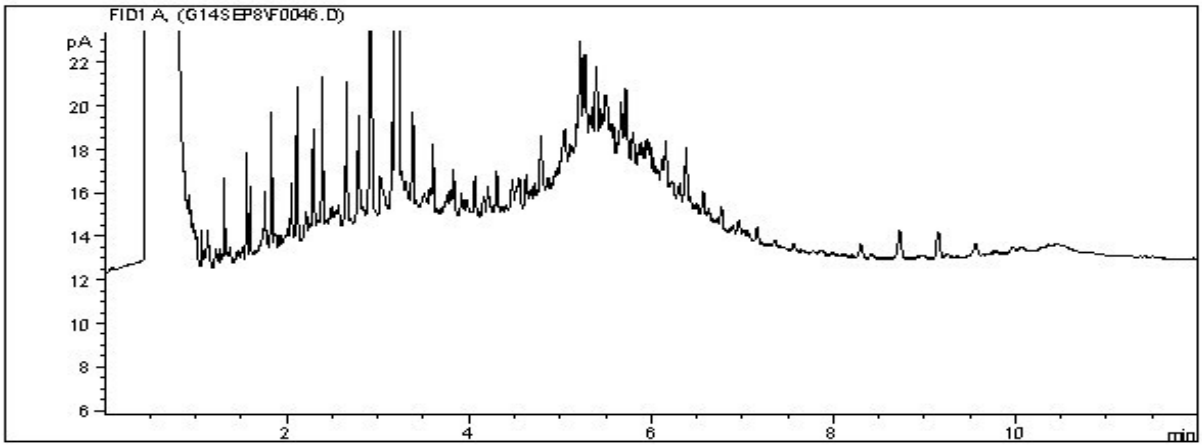
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

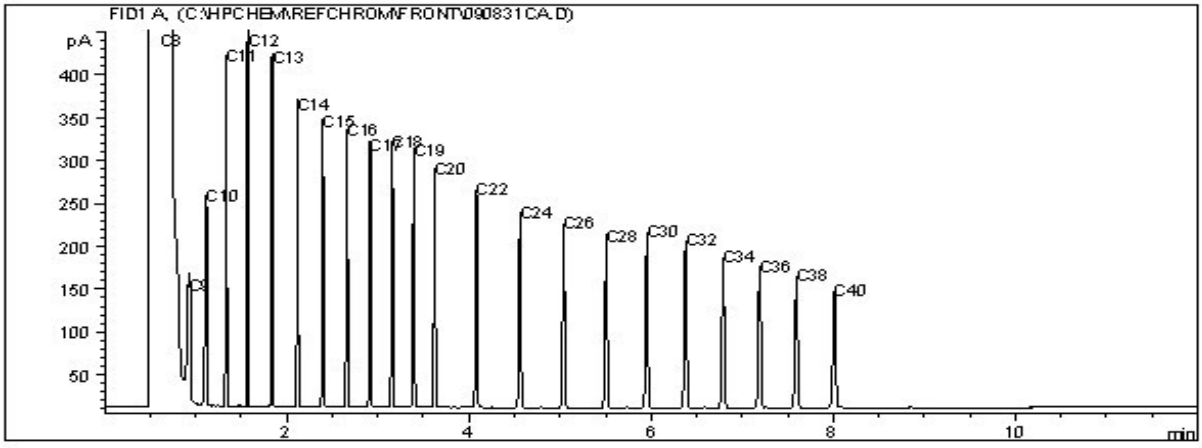
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57110

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP8-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

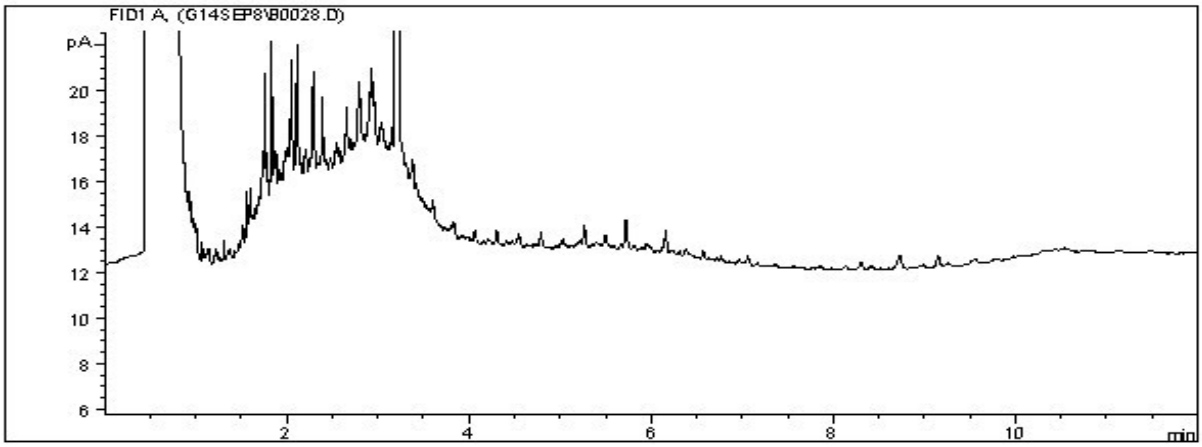
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

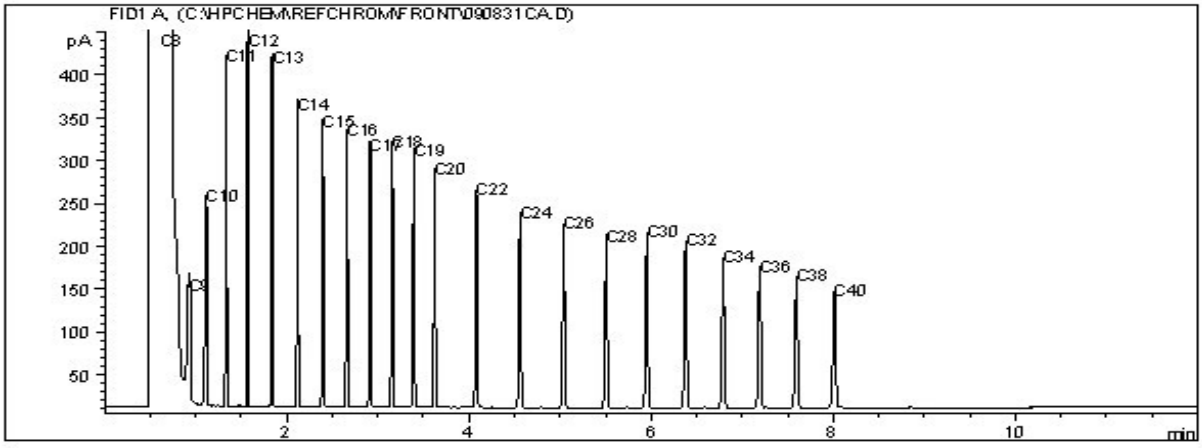
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57111

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP9-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

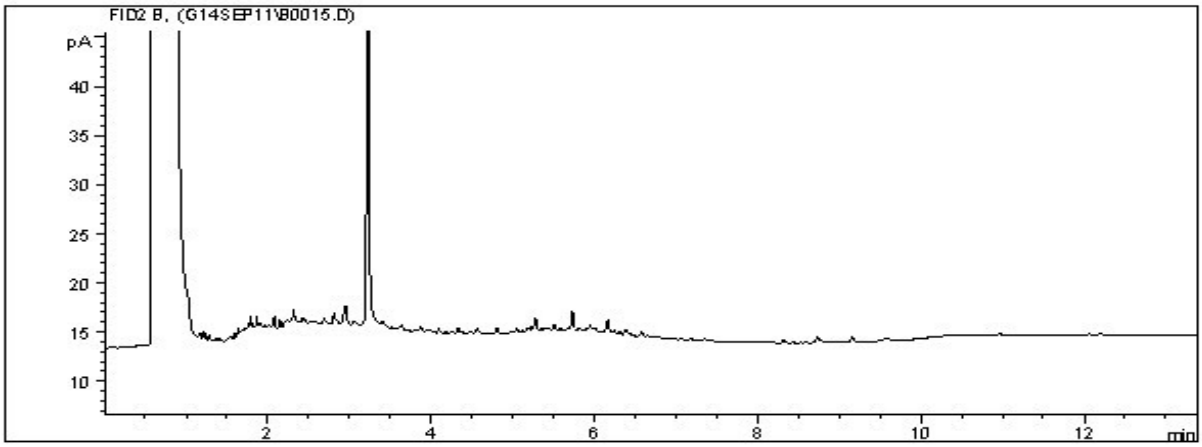
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

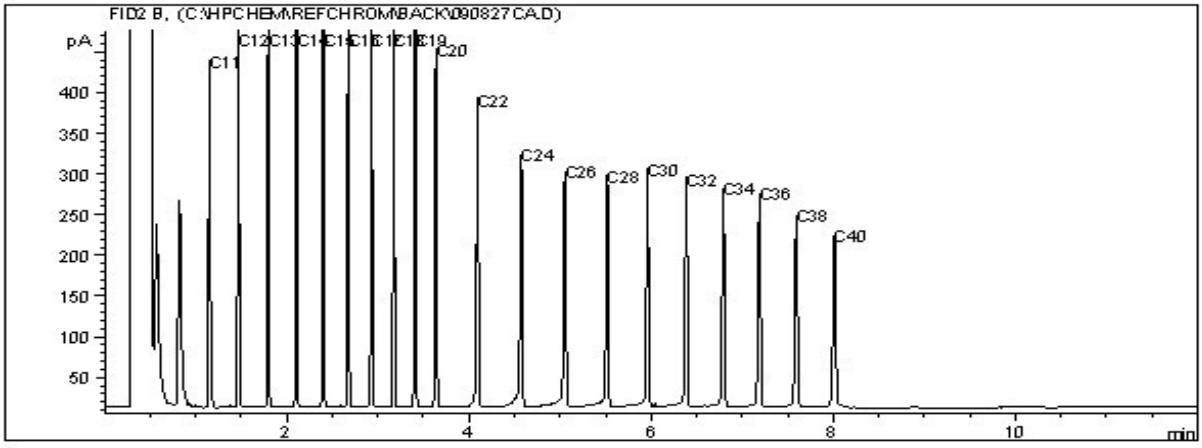
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57114

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP10-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

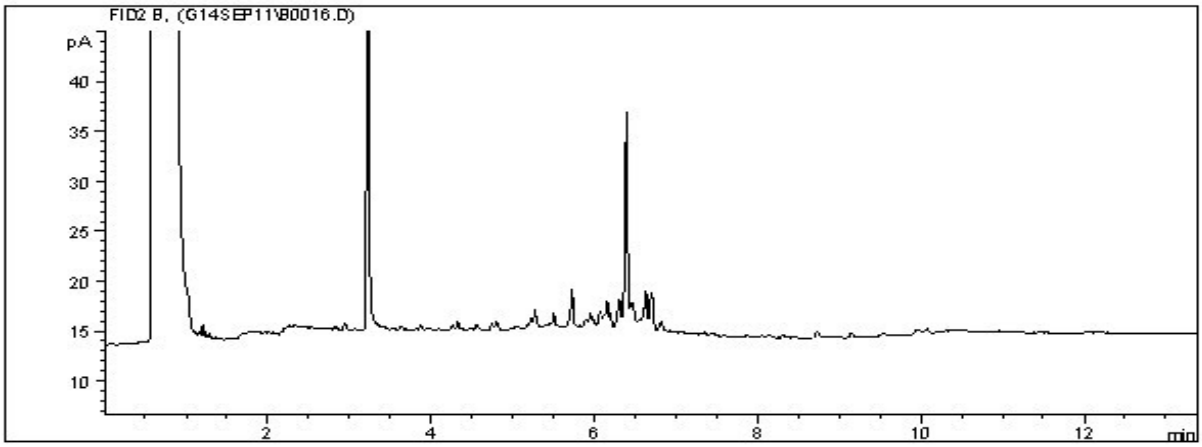
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

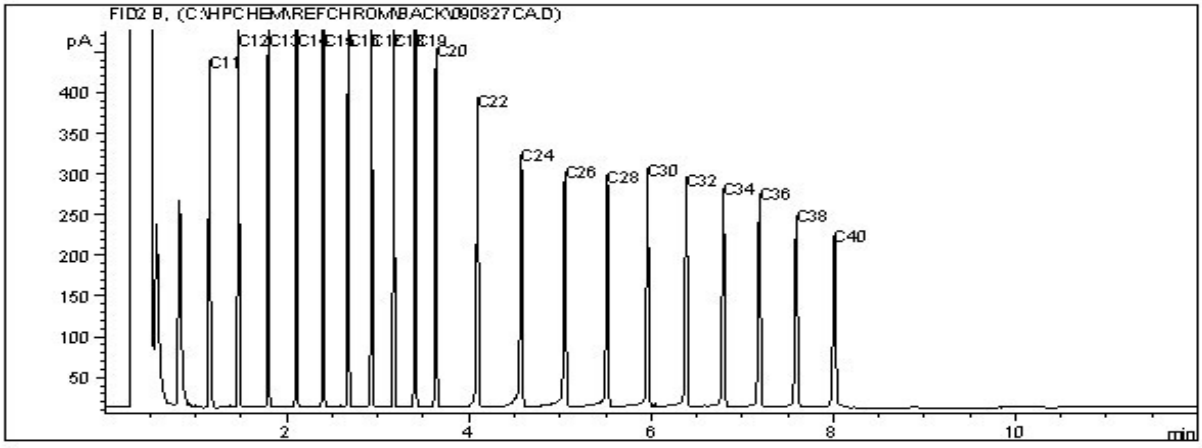
Report Date: 2009/10/06
Maxxam Job #: A947822
Maxxam Sample: Q57115

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: GR2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

Your Project #: A947822
Your C.O.C. #: na

Attention: Kimberley Webber
Maxxam Analytics
8577 Commerce Crt
Burnaby, BC
V5A 4N5

Report Date: 2009/09/18

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B7918
Received: 2009/09/09, 13:17

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PFOS and PFOA in soil	5	2009/09/11	2009/09/16	CAM SOP-00894	In house method

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

Encryption Key

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DQ3180		DQ3181		
Sampling Date		2009/08/29		2009/08/29		
	Units	**Q56933-03R\3-09-1-1**	**QC Batch**	**Q56937-01R\3-09-3-2**	**RDL**	**QC Batch**
Miscellaneous Parameters						
Perfluoro-1-Octanesulfonate (PFOS)	ng/g	830	1942158	<25	25	1936161
Perfluoro-n-Octanoic Acid (PFOA)	ng/g	<2.5	1936161	5.8	2.5	1936161

Maxxam ID		DQ3182	DQ3183		DQ3184		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		
	Units	**Q56940-03R\3-09-4M-3**	**Q56941-03R\3-09-DUP-1**	**QC Batch**	**Q56947-03R\3-09-6M-3**	**RDL**	**QC Batch**
Miscellaneous Parameters							
Perfluoro-1-Octanesulfonate (PFOS)	ng/g	620	820	1936161	53	25	1942158
Perfluoro-n-Octanoic Acid (PFOA)	ng/g	9.6	3.2	1936161	5.5	2.5	1936161

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

PFOS and PFOA in soil: The recovery of PFOS in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.
Duplicate results exceeded RPD acceptance criteria for PFOS. This may be due to sample heterogeneity.

Sample DQ3180, PFOS and PFOA in soil: Test repeated.
PFOS and PFOA in soil: The recovery of PFOS in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.

Sample DQ3184, PFOS and PFOA in soil: Test repeated.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1936161	Perfluoro-1-Octanesulfonate (PFOS)	2009/09/16	NC	N/A	113	N/A	<25	ng/g		
1936161	Perfluoro-n-Octanoic Acid (PFOA)	2009/09/16	112	N/A	88	N/A	<2.5	ng/g	NC	20
1942158	Perfluoro-1-Octanesulfonate (PFOS)	2009/09/18	N/C	N/A	108	N/A	<25	ng/g	NC	20

N/A = Not Applicable
RPD = Relative Percent Difference
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B7918

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

ADAM ROBINSON, Technical Service

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: A947822
Your C.O.C. #: n/a

Attention: Kimberley Webber
Maxxam Analytics
8577 Commerce Crt
Burnaby, BC
V5A 4N5

Report Date: 2009/10/05
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B6098
Received: 2009/09/04, 10:40

Sample Matrix: Soil
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
MOISTURE	9	N/A	2009/09/09	CAM SOP-00445	McKeague 2nd ed 1978
MOISTURE	1	N/A	2009/10/01	CAM SOP-00445	McKeague 2nd ed 1978
OC Pesticides (Selected) & PCB (1)	3	2009/09/09	2009/09/09	CAM SOP-00307	SW846 8081, 8082
Polychlorinated Biphenyl in Soil	7	2009/09/08	2009/09/08	CAM SOP-00309	SW846 8082
Polychlorinated Biphenyl in Soil	1	2009/09/08	2009/09/10	CAM SOP-00309	SW846 8082
Polychlorinated Biphenyl in Soil	1	2009/10/01	2009/10/02	CAM SOP-00309	SW846 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DP3378	DP3379	DP3380	DP3381	DP3382	DP3383		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**Q57104 \ 2-09-TP3-1**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Inorganics									
Moisture	%	9.8	8.7	11	22	5.9	14	0.2	1933152

Maxxam ID		DP3384	DP3385	DP7276		DW4928		
Sampling Date		2009/08/29	2009/08/29	2009/08/29				
	Units	**Q57111 \ 2-09-TP9-1**	**Q56938 \ 3-09-4M-1**	**Q56940 \ 3-09-4M-3**	**QC Batch**	**Q56941-02R/3-09-DUP-1**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	18	5.2	8.9	1933152	6.5	0.2	1957641

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3379	DP3380	DP3381	DP3382		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**Q57104 \ 2-09-TP3-1**	**RDL**	**QC Batch**
PCBs								
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Total PCB	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Surrogate Recovery (%)								
2,4,5,6-Tetrachloro-m-xylene	%	76	83	77	89	70		1931812
Decachlorobiphenyl	%	79	80	74	75	75		1931812

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3384	DP3385	DP7276		DW4928		
Sampling Date		2009/08/29	2009/08/29	2009/08/29				
	Units	**Q57111 \ 2-09-TP9-1**	**Q56938 \ 3-09-4M-1**	**Q56940 \ 3-09-4M-3**	**QC Batch**	**Q56941-02R/3-09-DUP-1**	**RDL**	**QC Batch**
PCBs								
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Total PCB	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Surrogate Recovery (%)								
2,4,5,6-Tetrachloro-m-xylene	%	68	91	65	1931812	71		1957835
Decachlorobiphenyl	%	69	81	70	1931812	83		1957835

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Pesticides & Herbicides						
Hexachlorobutadiene	ug/g	<0.01	<0.01	<0.01	0.01	1933312
Aldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
b-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
d-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
g-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Chlordane (Total)	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD + p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE + p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT + p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
DDT+ Metabolites	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Dieldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan I	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan II	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan sulfate	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Total Endosulfan	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin aldehyde	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin ketone	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor epoxide	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Hexachlorobenzene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Lindane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Methoxychlor	ug/g	<0.008	<0.008	<0.008	0.008	1933312
Mirex	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Octachlorostyrene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Toxaphene	ug/g	<0.08	<0.08	<0.08	0.08	1933312

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	73	70	73		1933312
Decachlorobiphenyl	%	90	91	93		1933312

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1931812	2,4,5,6-Tetrachloro-m-xylene	2009/09/08	94	40 - 130	100	40 - 130	96	%		
1931812	Decachlorobiphenyl	2009/09/08	85	40 - 130	83	40 - 130	83	%		
1931812	Aroclor 1260	2009/09/08	112	30 - 130	108	30 - 130	<0.01	ug/g	NC	50
1931812	Total PCB	2009/09/08	112	30 - 130	108	30 - 130	<0.01	ug/g	NC	50
1931812	Aroclor 1262	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1016	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1221	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1232	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1242	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1248	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1254	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1268	2009/09/08					<0.01	ug/g	NC	50
1933152	Moisture	2009/09/09							0.6	50
1933312	2,4,5,6-Tetrachloro-m-xylene	2009/09/09	45	40 - 130	67	40 - 130	68	%		
1933312	Decachlorobiphenyl	2009/09/09	87	40 - 130	84	40 - 130	89	%		
1933312	Hexachlorobutadiene	2009/09/09	34	N/A	73	N/A	<0.01	ug/g	NC	50
1933312	Aldrin	2009/09/09	68	40 - 130	79	40 - 130	<0.002	ug/g	NC	50
1933312	a-BHC	2009/09/09	54	40 - 130	69	40 - 130	<0.002	ug/g	NC	50
1933312	b-BHC	2009/09/09	75	40 - 130	79	40 - 130	<0.002	ug/g	NC	50
1933312	d-BHC	2009/09/09	89	40 - 130	94	40 - 130	<0.002	ug/g	NC	50
1933312	a-Chlordane	2009/09/09	79	40 - 130	83	40 - 130	<0.002	ug/g	NC	50
1933312	g-Chlordane	2009/09/09	86	40 - 130	89	40 - 130	<0.002	ug/g	NC	50
1933312	o,p-DDD	2009/09/09	89	40 - 130	90	40 - 130	<0.002	ug/g	NC	50
1933312	p,p-DDD	2009/09/09	93	40 - 130	104	40 - 130	<0.002	ug/g	NC	50
1933312	o,p-DDE	2009/09/09	81	40 - 130	87	40 - 130	<0.002	ug/g	NC	50
1933312	p,p-DDE	2009/09/09	86	40 - 130	87	40 - 130	<0.002	ug/g	NC	50
1933312	o,p-DDT	2009/09/09	85	40 - 130	97	40 - 130	<0.002	ug/g	NC	50
1933312	p,p-DDT	2009/09/09	99	40 - 130	114	40 - 130	<0.002	ug/g	NC	50
1933312	Dieldrin	2009/09/09	90	40 - 130	95	40 - 130	<0.002	ug/g	NC	50
1933312	Endosulfan I	2009/09/09	79	40 - 130	85	40 - 130	<0.002	ug/g	NC	50
1933312	Endosulfan II	2009/09/09	95	40 - 130	101	40 - 130	<0.002	ug/g	NC	50
1933312	Endosulfan sulfate	2009/09/09	92	40 - 130	95	40 - 130	<0.002	ug/g	NC	50
1933312	Endrin	2009/09/09	85	40 - 130	92	40 - 130	<0.002	ug/g	NC	50
1933312	Endrin aldehyde	2009/09/09	77	40 - 130	112	40 - 130	<0.002	ug/g	NC	50
1933312	Endrin ketone	2009/09/09	99	40 - 130	100	40 - 130	<0.002	ug/g	NC	50
1933312	Heptachlor	2009/09/09	59	40 - 130	68	40 - 130	<0.002	ug/g	NC	50
1933312	Heptachlor epoxide	2009/09/09	71	40 - 130	74	40 - 130	<0.002	ug/g	NC	50
1933312	Hexachlorobenzene	2009/09/09	53	20 - 130	67	20 - 130	<0.002	ug/g	NC	50
1933312	Lindane	2009/09/09	71	40 - 130	87	40 - 130	<0.002	ug/g	NC	50
1933312	Methoxychlor	2009/09/09	87	40 - 130	94	40 - 130	<0.008	ug/g	NC	50

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1933312	Mirex	2009/09/09	87	40 - 130	83	40 - 130	<0.002	ug/g	NC	50
1933312	Octachlorostyrene	2009/09/09	76	40 - 130	90	40 - 130	<0.002	ug/g	NC	50
1933312	Toxaphene	2009/09/09					<0.08	ug/g	NC	50
1933312	Chlordane (Total)	2009/09/09					<0.002	ug/g	NC	50
1933312	o,p-DDD + p,p-DDD	2009/09/09					<0.002	ug/g	NC	50
1933312	o,p-DDE + p,p-DDE	2009/09/09					<0.002	ug/g	NC	50
1933312	o,p-DDT + p,p-DDT	2009/09/09					<0.002	ug/g	NC	50
1933312	DDT+ Metabolites	2009/09/09					<0.002	ug/g	NC	50
1933312	Total Endosulfan	2009/09/09					<0.002	ug/g	NC	50
1957641	Moisture	2009/10/01							7.5	50
1957835	2,4,5,6-Tetrachloro-m-xylene	2009/10/02	83	40 - 130	103	40 - 130	96	%		
1957835	Decachlorobiphenyl	2009/10/02	109	40 - 130	102	40 - 130	99	%		
1957835	Aroclor 1260	2009/10/02	103	30 - 130	108	30 - 130	<0.01	ug/g	NC	50
1957835	Total PCB	2009/10/02	103	30 - 130	108	30 - 130	<0.01	ug/g	NC	50
1957835	Aroclor 1262	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1016	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1221	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1232	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1242	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1248	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1254	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1268	2009/10/02					<0.01	ug/g	NC	50

N/A = Not Applicable
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B6098

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

CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst

CRISTINA CARRIERE, Scientific Services

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

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1748-0901
Site: CAMBRIDGE BAY
Your C.O.C. #: 80795, 80794, 80792, 80793, 80791, 80785, 80786, 80787

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2009/12/15
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A947822
Received: 2009/09/02, 15:50

Sample Matrix: Soil
Samples Received: 47

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/MTBE Soil LH, VH, F1 SIM/MS	10	2009/09/04	2009/09/05	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	8	2009/09/04	2009/09/06	BRN-SOP-0304 R10.0	EPA SW846 8260B
BTEX/MTBE Soil LH, VH, F1 SIM/MS	1	2009/09/04	2009/09/07	BRN-SOP-0304 R10.0	EPA SW846 8260B
Volatile F1-BTEX	1	N/A	2009/09/07		
Volatile F1-BTEX	17	N/A	2009/09/08		
Volatile F1-BTEX	21	N/A	2009/09/09		
Volatile F1-BTEX	3	N/A	2009/09/10		
CCME Hydrocarbons (F2-F4 in soil)	26	2009/09/04	2009/09/08	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	11	2009/09/04	2009/09/09	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons (F2-F4 in soil)	5	2009/09/04	2009/09/11	BRN SOP-00342 R9.0	CCME Soil Tier 1
CCME Hydrocarbons-SilicaGel (F4 in soil)	3	2009/09/22	2009/09/22	ORG420 Rev. 0.0	CCME Soil Tier1
Ethylene, Di, Tri & Tetraethylene glycol	1	2009/09/09	2009/09/10	BRN SOP-00307R6	Based on EPA 8015B
Elements by ICPMS (total)	8	2009/09/08	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	17	2009/09/08	2009/09/10	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	2	2009/09/09	2009/09/09	BRN SOP-00203 R5.0	Based on EPA 200.8
Elements by ICPMS (total)	6	2009/12/15	2009/12/15	BRN SOP-00203 R5.0	Based on EPA 200.8
Particulate Mesh 200 @	3	N/A	2009/09/08	NA	NA
Moisture	42	N/A	2009/09/05	BRN SOP-00321 R5.0	Ont MOE -E 3139
PAH in Soil by GC/MS (SIM)	5	2009/09/04	2009/09/05	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	3	2009/09/04	2009/09/06	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	1	2009/09/04	2009/09/08	BRN SOP-00332 R9.0	Based on EPA 8270D
PAH in Soil by GC/MS (SIM)	7	2009/09/04	2009/09/09	BRN SOP-00332 R9.0	Based on EPA 8270D
Total LMW, HMW, Total PAH Calc	8	N/A	2009/09/08		
Total LMW, HMW, Total PAH Calc	1	N/A	2009/09/09		
Total LMW, HMW, Total PAH Calc	7	N/A	2009/09/10		
pH (2:1 DI Water Extract) @	4	2009/09/09	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) @	4	2009/09/10	2009/09/11	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) @	19	2009/09/11	2009/09/12	BRN SOP-00266 R6.0	Carter, SSMA 16.2
pH (2:1 DI Water Extract) @	6	2009/12/15	2009/12/15	BRN SOP-00266 R6.0	Carter, SSMA 16.2
CCME F1 C6-C10 in Soil by GC/FID @	8	2009/09/04	2009/09/06		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID @	12	2009/09/04	2009/09/07		Based on EPA SW8260B
CCME F1 C6-C10 in Soil by GC/FID @	3	2009/09/04	2009/09/10		Based on EPA SW8260B
Sublet (Inorganics) @	5	N/A	2009/09/16		
VOCs in Soil by HS GC/MS	7	2009/09/04	2009/09/06	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	15	2009/09/04	2009/09/07	BRN SOP-00311 R8.0	Based on EPA 8260B
VOCs in Soil by HS GC/MS	1	2009/09/04	2009/09/09	BRN SOP-00311 R8.0	Based on EPA 8260B
Pesticides, OC Soil Subcontract @	3	2009/09/11	2009/09/09		
PCB Soil Subcontract @	7	2009/09/14	2009/09/08		
PCB Soil Subcontract @	1	2009/10/05	2009/10/01		

../2

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

* Results relate only to the items tested.

(1) This test was performed by Maxxam Ontario (From Burnaby)
(2) SCC/CAEAL
(3) SCC/CAEAL/NELAC

Encryption Key

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

KIMBERLEY WEBBER, BBY Customer Service
Email: kim.webber@maxxamanalytics.com
Phone# (604) 444-4808 Ext:259

==========

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 CALA have approved this reporting process and electronic report format.

Total cover pages: 2

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q56933	Q56934		Q56935		Q56937	Q56939	Q56940	Q56941		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**3-09-1-1**	**3-09-2-1**	**QC Batch**	**3-09-2-2**	**QC Batch**	**3-09-3-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-DUP-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.18		3628096	8.37	3628096		8.45	8.53		0.01	3628096
Parameter												
Subcontract Parameter	N/A	ATTACHED		3159742			ATTACHED		ATTACHED	ATTACHED	N/A	3159742
Physical Properties												
<200 mesh (>.075 mm)	%		43.7	3398902				59.3			0.1	3398902
>200 mesh (<.075 mm)	%		56.3	3398902				40.8			0.1	3398902
Moisture	%	5.6		3395524	7.3	3395624	6.5	8.4	8.9	5.8	0.3	3395524

Maxxam ID		Q56943	Q56943	Q56947	Q56948	Q56949		Q56950	Q56951		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		
	Units	**3-09-5M-2**	**3-09-5M-2 Lab-Dup**	**3-09-6M-3**	**3-09-DUP-2**	**1-09-1M-1**	**QC Batch**	**1-09-2M-1**	**1-09-3M-1**	**RDL**	**QC Batch**
Misc. Inorganics											
Soluble (2:1) pH	pH Units	7.83	7.91	8.27			3628096			0.01	
Parameter											
Subcontract Parameter	N/A			ATTACHED			3159742	ATTACHED		N/A	2627069
Physical Properties											
Moisture	%	5.3		10	9.5	7.4	3395524	9.1	9.5	0.3	3395524

Maxxam ID		Q56978	Q56979	Q56980	Q56981	Q56982	Q56983	Q56984	Q56985	Q56986		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**1-09-DUP-1**	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**4A-09-4-1**	**RDL**	**QC Batch**
Parameter												
Subcontract Parameter	N/A			ATTACHED							N/A	3145118
Physical Properties												
<200 mesh (>.075 mm)	%			36.4							0.1	3398902
>200 mesh (<.075 mm)	%			63.6							0.1	3398902
Moisture	%	11	8.6	10	11	11	8.7	12	11	9.9	0.3	3395624

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q56987	Q56988	Q56989	Q57022	Q57023		Q57029	Q57032	Q57059		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-5-1**	**4A-09-6-1**	**4A-09-6-2**	**4A-09-7-1**	**4A-09-8-1**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**5-09-TP1-1**	**RDL**	**QC Batch**
Physical Properties												
Moisture	%	9.7	5.6	11	8.8	12	3395624	6.2	11	19	0.3	3395627

Maxxam ID		Q57062	Q57065	Q57100	Q57101		Q57103		Q57104	Q57106		
Sampling Date		2009/08/30	2009/08/30	2009/08/29	2009/08/29		2009/08/29		2009/08/29	2009/08/29		
	Units	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-1**	**2-09-TP1-2**	**QC Batch**	**2-09-TP2-2**	**QC Batch**	**2-09-TP3-1**	**2-09-TP4**	**RDL**	**QC Batch**
Parameter												
Subcontract Parameter	N/A			ATTACHED		3145118	ATTACHED	2627069	ATTACHED		N/A	3145118
Physical Properties												
Moisture	%	21	13		15	3395627	24	3395627	16	22	0.3	3395627

Maxxam ID		Q57107	Q57108	Q57109		Q57110	Q57110		Q57111	Q57114		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29		
	Units	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**QC Batch**	**2-09-TP8-1**	**2-09-TP8-1 Lab-Dup**	**QC Batch**	**2-09-TP9-1**	**2-09-TP10-1**	**RDL**	**QC Batch**
Parameter												
Subcontract Parameter	N/A				3145118	ATTACHED		2627069	ATTACHED		N/A	3145118
Physical Properties												
Moisture	%	8.9	17	11	3395627	9.3	10	3395627	32	27	0.3	3395627

Maxxam ID		Q57115		
Sampling Date		2009/08/29		
	Units	**GR2**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	2.4	0.3	3395627

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q56933	Q56935	Q56937	Q56939	Q56940	Q56941	Q56943	Q56947		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**3-09-1-1**	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-DUP-1**	**3-09-5M-2**	**3-09-6M-3**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon											
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	16	27	<10	1700	850	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	220	<10	<10	13	17	430	30	160	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	190	<10	<10	<10	<10	190	<10	<10	10	3398109
Reached Baseline at C50	mg/kg	NO	YES	YES	YES	YES	YES	YES	YES	N/A	3398109
OIL & GREASE											
F4SG (Heavy Hydrocarbons-SilicaGel)	mg/kg	3300								100	3437023
Surrogate Recovery (%)											
O-TERPHENYL (sur.)	%	89	92	102	101	100	85	97	100		3398109

Maxxam ID		Q56948	Q56949	Q56950	Q56951		Q56978	Q56979	Q56980		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/30	2009/08/30	2009/08/30		
	Units	**3-09-DUP-2**	**1-09-1M-1**	**1-09-2M-1**	**1-09-3M-1**	**QC Batch**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon											
F2 (C10-C16 Hydrocarbons)	mg/kg	860	<10	<10	<10	3400091	<10	<10	<10	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	180	<10	<10	<10	3400091	<10	10	<10	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	<10	3400091	<10	<10	<10	10	3398109
Reached Baseline at C50	mg/kg	YES	YES	YES	YES	3400091	YES	YES	YES	N/A	3398109
Surrogate Recovery (%)											
O-TERPHENYL (sur.)	%	106	100	97	102	3400091	76	110	105		3398109

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q56981	Q56981		Q56982	Q56983	Q56984	Q56985		Q56986		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30		
	Units	**1-09-DUP-1**	**1-09-DUP-1 Lab-Dup**	**QC Batch**	**4A-09-1M-1**	**4A-09-2M-1**	**4A-09-3M-1**	**4A-09-DUP-1**	**QC Batch**	**4A-09-4-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	740	<10	3400091	3700	10	3398109
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	14	3405247	22	<10	140	<10	3400091	520	10	3398109
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	3405247	<10	<10	<10	<10	3400091	11	10	3398109
Reached Baseline at C50	mg/kg	YES	YES	3405247	YES	YES	YES	YES	3400091	YES	N/A	3398109
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	79	69	3405247	106	105	93	97	3400091	69		3398109

Maxxam ID		Q56987	Q56988	Q56989	Q56989	Q57022		Q57023	Q57029	Q57032		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-5-1**	**4A-09-6-1**	**4A-09-6-2**	**4A-09-6-2 Lab-Dup**	**4A-09-7-1**	**QC Batch**	**4A-09-8-1**	**5-09TP4-3**	**6-09TP1-3**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	12000	<10	<10		<10	3398109	150	<10	<10	10	3405247
F3 (C16-C34 Hydrocarbons)	mg/kg	6400	110	27		<10	3398109	120	<10	35	10	3405247
F4 (C34-C50 Hydrocarbons)	mg/kg	3900	94	15		<10	3398109	<10	<10	<10	10	3405247
Reached Baseline at C50	mg/kg	YES	NO	NO		YES	3398109	YES	YES	YES	N/A	3405247
OIL & GREASE												
F4SG (Heavy Hydrocarbons-SilicaGel)	mg/kg		5500	2300	2500		3437023				100	
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	93	103	91		94	3398109	82	82	70		3405247

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104	Q57106		Q57107		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	<10	<10	<10	<10	3405247	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	<10	47	350	50	19	<10	<10	3405247	66	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	23	<10	<10	<10	<10	3405247	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	YES	YES	YES	YES	YES	YES	3405247	YES	N/A	3410083
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	76	87	83	91	88	84	77	3405247	91		3410083

Maxxam ID		Q57107	Q57108	Q57109		Q57110	Q57111		Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29		
	Units	**2-09-TP5-1 Lab-Dup**	**2-09-TP6-1**	**2-09-TP7-1**	**QC Batch**	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Ext. Pet. Hydrocarbon												
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	3410083	13	31	3400091	13	<10	10	3410083
F3 (C16-C34 Hydrocarbons)	mg/kg	63	65	23	3410083	120	52	3400091	39	74	10	3410083
F4 (C34-C50 Hydrocarbons)	mg/kg	<10	<10	<10	3410083	18	<10	3400091	<10	<10	10	3410083
Reached Baseline at C50	mg/kg	YES	YES	YES	3410083	YES	YES	3400091	YES	YES	N/A	3410083
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	91	97	93	3410083	99	96	3400091	92	94		3410083

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

GLYCOLS BY GC-FID (SOIL)

Maxxam ID		Q56950		
Sampling Date		2009/08/29		
	Units	**1-09-2M-1**	**RDL**	**QC Batch**
Glycols				
Extractable (Water) Ethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Diethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Triethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Tetraethylene Glycol	mg/kg	<10	10	3404986
Extractable (Water) Propylene Glycol	mg/kg	<10	10	3404986
Surrogate Recovery (%)				
Extractable (Water) SULFOLANE (sur.)	%	86		3404986

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		Q56933	Q56933	Q56935	Q56939	Q56940	Q56943	Q56947		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-2-2**	**3-09-4M-2**	**3-09-4M-3**	**3-09-5M-2**	**3-09-6M-3**	**RDL**	**QC Batch**
Total Metals by ICPMS										
Total Lead (Pb)	mg/kg	5.9	6.0	4.6	5.5	5.6	2.8	3.9	0.1	3627985

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56935	Q56937	Q56939	Q56943		Q56947	Q56947		Q56948		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29		2009/08/29	2009/08/29		2009/08/29		
	Units	**3-09-2-2**	**3-09-3-2**	**3-09-4M-2**	**3-09-5M-2**	**QC Batch**	**3-09-6M-3**	**3-09-6M-3 Lab-Dup**	**QC Batch**	**3-09-DUP-2**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	28	110	3393756	120		3393756	88	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	0.015	<0.005	0.86	<0.005	3398448	0.005	<0.005	3398449	<0.005	0.005	3398448
Ethylbenzene	mg/kg	<0.01	<0.01	0.05	<0.01	3398448	0.08	0.08	3398449	0.10	0.01	3398448
m & p-Xylene	mg/kg	<0.1	<0.1	0.3	<0.1	3398448	2.1	2.0	3398449	1.6	0.1	3398448
o-Xylene	mg/kg	<0.1	<0.1	0.1	<0.1	3398448	0.9	0.8	3398449	0.6	0.1	3398448
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Toluene	mg/kg	0.07	<0.05	0.16	<0.05	3398448	<0.05	<0.05	3398449	<0.05	0.05	3398448
Xylenes (Total)	mg/kg	<0.1	<0.1	0.5	<0.1	3398448	2.9	2.8	3398449	2.3	0.1	3398448
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	29	110	3398448	120	110	3398449	90	10	3398448
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	3398449	<0.1	0.1	3398448
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	101	100	99	106	3398448	109	108	3398449	115		3398448
D10-ETHYLBENZENE (sur.)	%	102	98	102	101	3398448	107	106	3398449	102		3398448
D4-1,2-DICHLOROETHANE (sur.)	%	93	93	93	94	3398448	98	97	3398449	94		3398448
D8-TOLUENE (sur.)	%	103	102	102	98	3398448	100	100	3398449	98		3398448

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56949	Q56951	Q56978	Q56981	Q56982		Q56983	Q56983	Q56985		
Sampling Date		2009/08/29	2009/08/29	2009/08/30	2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-1M-1**	**1-09-3M-1**	**1-09-4M-1**	**1-09-DUP-1**	**4A-09-1M-1**	**QC Batch**	**4A-09-2M-1**	**4A-09-2M-1 Lab-Dup**	**4A-09-DUP-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	3393756	<10		<10	10	3393756
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	3398448	<0.005	<0.005	0.009	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	3398448	<0.01	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	3398448	<0.05	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons												
(C6-C10)	mg/kg	<10	<10	<10	<10	<10	3398448	<10	<10	<10	10	3399617
Volatiles												
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	3398448	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	106	101	101	100	99	3398448	101	100	101		3399617
D10-ETHYLBENZENE (sur.)	%	101	100	96	102	94	3398448	100	100	100		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	92	94	100	97	101	3398448	102	103	104		3399617
D8-TOLUENE (sur.)	%	102	102	101	101	102	3398448	97	98	98		3399617

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CCME BTEX/F1 BY HS - SOIL (SOIL)

Maxxam ID		Q56988	Q56989	Q57022	Q57023	Q57110	Q57111		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29		
	Units	**4A-09-6-1**	**4A-09-6-2**	**4A-09-7-1**	**4A-09-8-1**	**2-09-TP8-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	32	180	<10	<10	10	3393756
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	0.046	<0.005	<0.005	0.005	3399617
Ethylbenzene	mg/kg	<0.01	<0.01	0.02	0.07	<0.01	<0.01	0.01	3399617
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	0.1	3399617
o-Xylene	mg/kg	<0.1	<0.1	<0.1	2.0	<0.1	<0.1	0.1	3399617
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Toluene	mg/kg	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	0.05	3399617
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	2.5	<0.1	<0.1	0.1	3399617
Extractable Hydrocarbons									
(C6-C10)	mg/kg	<10	<10	32	180	<10	<10	10	3399617
Volatiles									
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399617
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	100	101	102	111	100	103		3399617
D10-ETHYLBENZENE (sur.)	%	103	100	102	100	99	98		3399617
D4-1,2-DICHLOROETHANE (sur.)	%	102	104	103	105	103	105		3399617
D8-TOLUENE (sur.)	%	98	98	98	99	97	97		3399617

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56950		Q56951	Q56978	Q56979	Q56980	Q56980	Q56984	Q56986		
Sampling Date		2009/08/29		2009/08/29	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30	2009/08/30		
	Units	**1-09-2M-1**	**QC Batch**	**1-09-3M-1**	**1-09-4M-1**	**1-09-5M-1**	**1-09-6M-1**	**1-09-6M-1 Lab-Dup**	**4A-09-3M-1**	**4A-09-4-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.39	3407604	8.10	8.28	7.87	8.17	8.17	7.98	8.03	0.01	3407604
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	7100	3401543	7540	8490	3540	8170	9210	4310	4280	100	3401600
Total Antimony (Sb)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.1	3401600
Total Arsenic (As)	mg/kg	1.3	3401543	1.2	1.7	1.0	1.9	1.9	2.7	1.9	0.2	3401600
Total Barium (Ba)	mg/kg	37.3	3401543	35.2	40.3	21.7	38.6	42.0	27.2	28.3	0.1	3401600
Total Beryllium (Be)	mg/kg	0.5	3401543	0.5	0.5	0.2	0.4	0.5	0.3	0.2	0.1	3401600
Total Bismuth (Bi)	mg/kg	<0.1	3401543	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3401600
Total Cadmium (Cd)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.08	0.05	3401600
Total Calcium (Ca)	mg/kg	42600	3401543	31700	35600	44800	49100	51200	75700	75900	100	3401600
Total Chromium (Cr)	mg/kg	18	3401543	14	21	7	18	20	11	10	1	3401600
Total Cobalt (Co)	mg/kg	5.4	3401543	5.6	5.2	3.1	5.7	6.2	3.9	3.4	0.3	3401600
Total Copper (Cu)	mg/kg	12.2	3401543	23.8	12.0	16.5	12.3	13.7	9.0	8.2	0.5	3401600
Total Iron (Fe)	mg/kg	12500	3401543	10700	13700	7990	12500	13900	10600	9540	100	3401600
Total Lead (Pb)	mg/kg	5.1	3401543	4.9	4.9	3.5	5.1	5.6	13.5	14.4	0.1	3401600
Total Magnesium (Mg)	mg/kg	26300	3401543	19500	23200	24300	29000	31200	40300	43100	100	3401600
Total Manganese (Mn)	mg/kg	231	3401543	192	229	187	247	262	328	275	0.2	3401600
Total Mercury (Hg)	mg/kg	<0.05	3401543	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3401600
Total Molybdenum (Mo)	mg/kg	0.5	3401543	0.2	0.4	0.3	0.3	0.3	0.6	0.5	0.1	3401600
Total Nickel (Ni)	mg/kg	12.4	3401543	11.8	12.2	6.2	13.1	14.5	10.0	9.0	0.8	3401600
Total Phosphorus (P)	mg/kg	484	3401543	458	505	383	512	526	625	451	10	3401600
Total Potassium (K)	mg/kg	3180	3401543	3990	3320	1520	3470	3720	1900	1890	100	3401600
Total Selenium (Se)	mg/kg	<0.5	3401543	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3401600
Total Silver (Ag)	mg/kg	0.06	3401543	0.06	0.06	<0.05	0.06	0.06	<0.05	<0.05	0.05	3401600
Total Sodium (Na)	mg/kg	310	3401543	266	337	143	310	336	184	180	100	3401600
Total Strontium (Sr)	mg/kg	27.7	3401543	23.5	25.1	20.2	26.5	28.7	43.5	38.7	0.1	3401600
Total Thallium (Tl)	mg/kg	0.12	3401543	0.15	0.12	0.08	0.14	0.15	0.10	0.09	0.05	3401600
Total Tin (Sn)	mg/kg	0.3	3401543	0.3	0.4	0.1	0.3	0.4	0.2	0.2	0.1	3401600
Total Titanium (Ti)	mg/kg	415	3401543	219	562	157	433	483	184	192	1	3401600
Total Vanadium (V)	mg/kg	28	3401543	20	33	15	28	31	22	19	2	3401600
Total Zinc (Zn)	mg/kg	21	3401543	13	23	7	19	22	13	11	1	3401600
Total Zirconium (Zr)	mg/kg	5.7	3401543	5.9	5.8	2.1	5.6	6.3	2.9	2.8	0.5	3401600

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q56987		Q57029	Q57029		Q57032	Q57033		Q57034		
Sampling Date		2009/08/30		2009/08/30	2009/08/30		2009/08/30	2009/08/30		2009/08/30		
	Units	**4A-09-5-1**	**QC Batch**	**5-09TP4-3**	**5-09TP4-3 Lab-Dup**	**QC Batch**	**6-09TP1-3**	**BG-1**	**QC Batch**	**BG-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.55	3407604	8.49	8.42	3410846	7.96	8.17	3412134	8.29	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3940	3401600	4420		3402570	4830	2470	3402612	2800	100	3402570
Total Antimony (Sb)	mg/kg	0.2	3401600	<0.1		3402570	0.1	<0.1	3402612	<0.1	0.1	3402570
Total Arsenic (As)	mg/kg	1.5	3401600	0.7		3402570	0.7	0.5	3402612	1.4	0.2	3402570
Total Barium (Ba)	mg/kg	25.3	3401600	33.3		3402570	32.3	21.6	3402612	18.6	0.1	3402570
Total Beryllium (Be)	mg/kg	0.4	3401600	0.3		3402570	0.3	0.2	3402612	0.3	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3401600	<0.1		3402570	<0.1	<0.1	3402612	<0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	0.39	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	92900	3401600	57400		3402570	53100	64600	3402612	51800	100	3402570
Total Chromium (Cr)	mg/kg	9	3401600	9		3402570	12	7	3402612	7	1	3402570
Total Cobalt (Co)	mg/kg	3.7	3401600	4.7		3402570	4.7	2.6	3402612	3.6	0.3	3402570
Total Copper (Cu)	mg/kg	10.8	3401600	9.3		3402570	10.4	8.7	3402612	8.4	0.5	3402570
Total Iron (Fe)	mg/kg	10100	3401600	9010		3402570	10400	9690	3402612	7750	100	3402570
Total Lead (Pb)	mg/kg	294	3401600	7.5		3402570	5.9	4.3	3402612	3.9	0.1	3402570
Total Magnesium (Mg)	mg/kg	53500	3401600	30400		3402570	31000	37000	3402612	28500	100	3402570
Total Manganese (Mn)	mg/kg	350	3401600	247		3402570	257	295	3402612	230	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3401600	<0.05		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.7	3401600	0.3		3402570	0.3	0.2	3402612	0.1	0.1	3402570
Total Nickel (Ni)	mg/kg	9.5	3401600	10.7		3402570	10.8	6.8	3402612	8.0	0.8	3402570
Total Phosphorus (P)	mg/kg	373	3401600	460		3402570	560	541	3402612	681	10	3402570
Total Potassium (K)	mg/kg	2250	3401600	2250		3402570	2220	1110	3402612	1520	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3401600	<0.5		3402570	<0.5	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3401600	0.06		3402570	<0.05	<0.05	3402612	<0.05	0.05	3402570
Total Sodium (Na)	mg/kg	195	3401600	229		3402570	149	<100	3402612	119	100	3402570
Total Strontium (Sr)	mg/kg	35.6	3401600	21.6		3402570	27.3	23.6	3402612	21.0	0.1	3402570
Total Thallium (Tl)	mg/kg	0.08	3401600	0.11		3402570	0.12	0.08	3402612	0.08	0.05	3402570
Total Tin (Sn)	mg/kg	0.3	3401600	0.2		3402570	0.2	0.1	3402612	0.2	0.1	3402570
Total Titanium (Ti)	mg/kg	122	3401600	188		3402570	260	121	3402612	126	1	3402570
Total Vanadium (V)	mg/kg	17	3401600	14		3402570	20	13	3402612	12	2	3402570
Total Zinc (Zn)	mg/kg	13	3401600	13		3402570	16	7	3402612	10	1	3402570
Total Zirconium (Zr)	mg/kg	3.1	3401600	3.9		3402570	2.9	2.5	3402612	3.7	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57035	Q57059		Q57062		Q57065	Q57101		Q57103		
Sampling Date		2009/08/30	2009/08/30		2009/08/30		2009/08/30	2009/08/29		2009/08/29		
	Units	**BG-3**	**5-09-TP1-1**	**QC Batch**	**5-09-TP2-1**	**QC Batch**	**5-09-TP3-1**	**2-09-TP1-2**	**QC Batch**	**2-09-TP2-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	8.34	8.28	3412134	8.29	3410846	8.60	7.30	3412134	7.75	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	3310	6630	3402612	2640	3402570	3300	3560	3402612	8920	100	3404758
Total Antimony (Sb)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	0.3	0.2	3402612	0.2	0.1	3404758
Total Arsenic (As)	mg/kg	0.9	2.1	3402612	2.4	3402570	1.6	1.8	3402612	8.5	0.2	3404758
Total Barium (Ba)	mg/kg	19.4	35.5	3402612	28.2	3402570	35.6	41.4	3402612	60.3	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.3	3402612	0.4	3402570	0.3	0.3	3402612	0.6	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	<0.1	3402612	<0.1	3402570	<0.1	<0.1	3402612	<0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	0.14	3402612	<0.05	3402570	0.05	0.07	3402612	0.11	0.05	3404758
Total Calcium (Ca)	mg/kg	53000	53900	3402612	95400	3402570	91400	67900	3402612	54200	100	3404758
Total Chromium (Cr)	mg/kg	8	15	3402612	12	3402570	9	11	3402612	27	1	3404758
Total Cobalt (Co)	mg/kg	3.7	6.7	3402612	7.1	3402570	3.6	3.3	3402612	5.1	0.3	3404758
Total Copper (Cu)	mg/kg	8.0	11.8	3402612	13.7	3402570	8.0	28.7	3402612	12.5	0.5	3404758
Total Iron (Fe)	mg/kg	7400	13100	3402612	15200	3402570	9350	9650	3402612	16300	100	3404758
Total Lead (Pb)	mg/kg	3.5	6.5	3402612	10.6	3402570	16.9	4.9	3402612	6.2	0.1	3404758
Total Magnesium (Mg)	mg/kg	30900	32300	3402612	54000	3402570	51600	35400	3402612	33400	100	3404758
Total Manganese (Mn)	mg/kg	212	340	3402612	535	3402570	322	265	3402612	224	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402612	<0.05	3402570	<0.05	<0.05	3402612	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	0.2	0.5	3402612	0.7	3402570	0.6	0.8	3402612	3.4	0.1	3404758
Total Nickel (Ni)	mg/kg	8.7	14.8	3402612	18.2	3402570	8.7	14.4	3402612	15.5	0.8	3404758
Total Phosphorus (P)	mg/kg	464	583	3402612	1240	3402570	514	717	3402612	713	10	3404758
Total Potassium (K)	mg/kg	1690	2530	3402612	1750	3402570	1790	1500	3402612	3590	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402612	<0.5	3402570	<0.5	0.9	3402612	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	<0.05	0.06	3402612	0.07	3402570	<0.05	0.05	3402612	0.08	0.05	3404758
Total Sodium (Na)	mg/kg	135	179	3402612	180	3402570	163	329	3402612	585	100	3404758
Total Strontium (Sr)	mg/kg	20.2	26.9	3402612	47.4	3402570	34.5	27.2	3402612	35.6	0.1	3404758
Total Thallium (Tl)	mg/kg	0.09	0.13	3402612	0.08	3402570	0.09	0.13	3402612	0.14	0.05	3404758
Total Tin (Sn)	mg/kg	0.2	0.3	3402612	0.2	3402570	0.2	0.2	3402612	0.4	0.1	3404758
Total Titanium (Ti)	mg/kg	142	299	3402612	69	3402570	134	156	3402612	604	1	3404758
Total Vanadium (V)	mg/kg	13	22	3402612	21	3402570	14	18	3402612	43	2	3404758
Total Zinc (Zn)	mg/kg	9	34	3402612	8	3402570	12	15	3402612	32	1	3404758
Total Zirconium (Zr)	mg/kg	3.3	4.8	3402612	5.2	3402570	2.4	4.4	3402612	6.3	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57104		Q57106		Q57107		Q57108		Q57109		
Sampling Date		2009/08/29		2009/08/29		2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP3-1**	**QC Batch**	**2-09-TP4**	**QC Batch**	**2-09-TP5-1**	**QC Batch**	**2-09-TP6-1**	**QC Batch**	**2-09-TP7-1**	**RDL**	**QC Batch**
Misc. Inorganics												
Soluble (2:1) pH	pH Units	7.90	3410846	8.49	3412134	8.02	3412134	8.09	3412134	8.12	0.01	3412134
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	4800	3402570	2950	3402612	4050	3402570	3860	3402612	3850	100	3402570
Total Antimony (Sb)	mg/kg	<0.1	3402570	<0.1	3402612	0.1	3402570	0.6	3402612	0.2	0.1	3402570
Total Arsenic (As)	mg/kg	1.8	3402570	1.6	3402612	3.3	3402570	40.6	3402612	6.5	0.2	3402570
Total Barium (Ba)	mg/kg	27.1	3402570	24.0	3402612	20.2	3402570	32.3	3402612	19.9	0.1	3402570
Total Beryllium (Be)	mg/kg	0.3	3402570	0.3	3402612	0.5	3402570	0.7	3402612	0.6	0.1	3402570
Total Bismuth (Bi)	mg/kg	<0.1	3402570	<0.1	3402612	0.2	3402570	0.1	3402612	0.1	0.1	3402570
Total Cadmium (Cd)	mg/kg	<0.05	3402570	<0.05	3402612	1.45	3402570	0.06	3402612	<0.05	0.05	3402570
Total Calcium (Ca)	mg/kg	54700	3402570	85900	3402612	81100	3402570	40800	3402612	31600	100	3402570
Total Chromium (Cr)	mg/kg	12	3402570	8	3402612	20	3402570	16	3402612	15	1	3402570
Total Cobalt (Co)	mg/kg	4.3	3402570	3.6	3402612	6.1	3402570	10.1	3402612	13.7	0.3	3402570
Total Copper (Cu)	mg/kg	12.0	3402570	8.5	3402612	94.5	3402570	24.5	3402612	20.0	0.5	3402570
Total Iron (Fe)	mg/kg	11100	3402570	8520	3402612	16200	3402570	51000	3402612	18200	100	3402570
Total Lead (Pb)	mg/kg	3.6	3402570	3.6	3402612	21.4	3402570	24.5	3402612	21.2	0.1	3402570
Total Magnesium (Mg)	mg/kg	32500	3402570	53300	3402612	48000	3402570	22600	3402612	17000	100	3402570
Total Manganese (Mn)	mg/kg	292	3402570	259	3402612	561	3402570	433	3402612	333	0.2	3402570
Total Mercury (Hg)	mg/kg	<0.05	3402570	<0.05	3402612	<0.05	3402570	<0.05	3402612	<0.05	0.05	3402570
Total Molybdenum (Mo)	mg/kg	0.4	3402570	0.3	3402612	1.3	3402570	7.4	3402612	4.9	0.1	3402570
Total Nickel (Ni)	mg/kg	10.4	3402570	8.5	3402612	32.1	3402570	25.5	3402612	20.9	0.8	3402570
Total Phosphorus (P)	mg/kg	539	3402570	636	3402612	1010	3402570	1820	3402612	798	10	3402570
Total Potassium (K)	mg/kg	1400	3402570	1890	3402612	1680	3402570	2570	3402612	2590	100	3402570
Total Selenium (Se)	mg/kg	<0.5	3402570	<0.5	3402612	<0.5	3402570	<0.5	3402612	<0.5	0.5	3402570
Total Silver (Ag)	mg/kg	<0.05	3402570	<0.05	3402612	0.09	3402570	<0.05	3402612	0.09	0.05	3402570
Total Sodium (Na)	mg/kg	215	3402570	333	3402612	231	3402570	1220	3402612	712	100	3402570
Total Strontium (Sr)	mg/kg	25.1	3402570	29.8	3402612	75.7	3402570	58.0	3402612	35.1	0.1	3402570
Total Thallium (Tl)	mg/kg	0.07	3402570	0.08	3402612	0.09	3402570	0.09	3402612	0.09	0.05	3402570
Total Tin (Sn)	mg/kg	0.2	3402570	0.1	3402612	0.4	3402570	0.4	3402612	0.5	0.1	3402570
Total Titanium (Ti)	mg/kg	285	3402570	135	3402612	110	3402570	75	3402612	84	1	3402570
Total Vanadium (V)	mg/kg	25	3402570	12	3402612	22	3402570	69	3402612	22	2	3402570
Total Zinc (Zn)	mg/kg	16	3402570	10	3402612	110	3402570	24	3402612	16	1	3402570
Total Zirconium (Zr)	mg/kg	2.5	3402570	2.0	3402612	4.5	3402570	4.3	3402612	6.1	0.5	3402570

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		Q57110	Q57111		Q57114		Q57115		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		2009/08/29		
	Units	**2-09-TP8-1**	**2-09-TP9-1**	**QC Batch**	**2-09-TP10-1**	**QC Batch**	**GR2**	**RDL**	**QC Batch**
Misc. Inorganics									
Soluble (2:1) pH	pH Units	8.14	8.32	3410846	8.10	3412134	7.90	0.01	3412134
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	2860	3180	3402570	3900	3402570	4980	100	3404758
Total Antimony (Sb)	mg/kg	0.2	0.1	3402570	0.2	3402570	0.1	0.1	3404758
Total Arsenic (As)	mg/kg	5.2	8.7	3402570	9.1	3402570	2.0	0.2	3404758
Total Barium (Ba)	mg/kg	41.5	17.1	3402570	25.7	3402570	24.5	0.1	3404758
Total Beryllium (Be)	mg/kg	0.4	0.7	3402570	0.7	3402570	0.3	0.1	3404758
Total Bismuth (Bi)	mg/kg	<0.1	0.1	3402570	0.1	3402570	0.1	0.1	3404758
Total Cadmium (Cd)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	1.71	0.05	3404758
Total Calcium (Ca)	mg/kg	53800	111000	3402570	72900	3402570	72800	100	3404758
Total Chromium (Cr)	mg/kg	13	13	3402570	17	3402570	22	1	3404758
Total Cobalt (Co)	mg/kg	12.1	6.0	3402570	16.0	3402570	5.0	0.3	3404758
Total Copper (Cu)	mg/kg	18.2	11.3	3402570	22.4	3402570	102	0.5	3404758
Total Iron (Fe)	mg/kg	22200	22200	3402570	24300	3402570	11900	100	3404758
Total Lead (Pb)	mg/kg	22.9	15.2	3402570	25.6	3402570	20.8	0.1	3404758
Total Magnesium (Mg)	mg/kg	29600	63200	3402570	40800	3402570	40800	100	3404758
Total Manganese (Mn)	mg/kg	490	807	3402570	639	3402570	495	0.2	3404758
Total Mercury (Hg)	mg/kg	<0.05	<0.05	3402570	<0.05	3402570	<0.05	0.05	3404758
Total Molybdenum (Mo)	mg/kg	3.7	2.7	3402570	4.7	3402570	0.9	0.1	3404758
Total Nickel (Ni)	mg/kg	23.4	13.0	3402570	24.0	3402570	29.7	0.8	3404758
Total Phosphorus (P)	mg/kg	659	1600	3402570	1030	3402570	901	10	3404758
Total Potassium (K)	mg/kg	2080	2000	3402570	2480	3402570	1660	100	3404758
Total Selenium (Se)	mg/kg	<0.5	<0.5	3402570	<0.5	3402570	<0.5	0.5	3404758
Total Silver (Ag)	mg/kg	0.11	0.05	3402570	0.07	3402570	0.07	0.05	3404758
Total Sodium (Na)	mg/kg	476	1300	3402570	1730	3402570	216	100	3404758
Total Strontium (Sr)	mg/kg	31.1	57.2	3402570	54.6	3402570	79.4	0.1	3404758
Total Thallium (Tl)	mg/kg	0.21	0.05	3402570	0.10	3402570	0.10	0.05	3404758
Total Tin (Sn)	mg/kg	0.4	0.3	3402570	0.5	3402570	0.5	0.1	3404758
Total Titanium (Ti)	mg/kg	61	80	3402570	110	3402570	147	1	3404758
Total Vanadium (V)	mg/kg	23	30	3402570	34	3402570	20	2	3404758
Total Zinc (Zn)	mg/kg	12	10	3402570	18	3402570	97	1	3404758
Total Zirconium (Zr)	mg/kg	5.7	6.2	3402570	4.9	3402570	3.1	0.5	3404758

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56933		Q56940	Q56941		Q56950	Q56950	Q56980		
Sampling Date		2009/08/29		2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/30		
	Units	**3-09-1-1**	**QC Batch**	**3-09-4M-3**	**3-09-DUP-1**	**QC Batch**	**1-09-2M-1**	**1-09-2M-1 Lab-Dup**	**1-09-6M-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	<0.01	3393461	0.40	<0.01	3393461	<0.01		<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02	3393461	<0.02	<0.02	3393461	<0.02		<0.02	0.02	3393461
Total PAH	mg/kg	<0.02	3393461	0.40	<0.02	3393461	<0.02		<0.02	0.02	3393461
Naphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
2-Methylnaphthalene	mg/kg	<0.01	3396608	0.20	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthylene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Acenaphthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluorene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Phenanthrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)anthracene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Chrysene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(b&j)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(k)fluoranthene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Benzo(a)pyrene	mg/kg	<0.01	3396608	<0.01	<0.01	3397567	<0.01	<0.01	<0.01	0.01	3396608
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Dibenz(a,h)anthracene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Benzo(g,h,i)perylene	mg/kg	<0.02	3396608	<0.02	<0.02	3397567	<0.02	<0.02	<0.02	0.02	3396608
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	88	3396608	95	95	3397567	91	88	90		3396608
D12-BENZO(A)PYRENE (sur.)	%	84	3396608	91	89	3397567	86	85	85		3396608
D8-ACENAPHTHYLENE (sur.)	%	84	3396608	90	91	3397567	86	84	86		3396608
TERPHENYL-D14 (sur.)	%	87	3396608	96	94	3397567	91	88	88		3396608

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q56984			Q56986		Q56987			Q57029	Q57032		
Sampling Date		2009/08/30			2009/08/30		2009/08/30			2009/08/30	2009/08/30		
	Units	**4A-09-3M-1**	**RDL**	**QC Batch**	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**RDL**	**QC Batch**
Polycyclic Aromatics													
Low Molecular Weight PAH`s	mg/kg	5.6	0.1	3393461	16	0.1	58	0.4	3393461	<0.01	<0.01	0.01	3393461
High Molecular Weight PAH`s	mg/kg	0.03	0.02	3393461	<0.2	0.2	<0.2	0.2	3393461	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	5.6	0.1	3393461	16	0.2	58	0.4	3393461	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	1.3	0.01	3400175	4.3(1)	0.1	13(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
2-Methylnaphthalene	mg/kg	4.0	0.01	3400175	11(1)	0.1	39(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Acenaphthylene	mg/kg	<0.1(2)	0.1	3400175	<0.1(2)	0.1	<0.4(2)	0.4	3397567	<0.01	<0.01	0.01	3401373
Acenaphthene	mg/kg	<0.03(2)	0.03	3400175	0.2(1)	0.1	0.8(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Fluorene	mg/kg	0.14	0.01	3400175	0.5(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Phenanthrene	mg/kg	0.13	0.01	3400175	0.3(1)	0.1	2.6(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.3(2)	0.3	3397567	<0.01	<0.01	0.01	3401373
Fluoranthene	mg/kg	0.02	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Pyrene	mg/kg	0.01	0.01	3400175	<0.1(1)	0.1	0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)anthracene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Chrysene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(b&j)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(k)fluoranthene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Benzo(a)pyrene	mg/kg	<0.01	0.01	3400175	<0.1(1)	0.1	<0.1(1)	0.1	3397567	<0.01	<0.01	0.01	3401373
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Dibenz(a,h)anthracene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Benzo(g,h,i)perylene	mg/kg	<0.02	0.02	3400175	<0.2(1)	0.2	<0.2(1)	0.2	3397567	<0.02	<0.02	0.02	3401373
Surrogate Recovery (%)													
D10-ANTHRACENE (sur.)	%	104		3400175	120		120		3397567	107	101		3401373
D12-BENZO(A)PYRENE (sur.)	%	101		3400175	110		110		3397567	99	94		3401373
D8-ACENAPHTHYLENE (sur.)	%	99		3400175	100		90		3397567	96	91		3401373
TERPHENYL-D14 (sur.)	%	96		3400175	110		100		3397567	94	91		3401373

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.
(2) - RDL raised due to sample matrix interference.

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

PAH IN SOIL BY GC/MS (SOIL)

Maxxam ID		Q57059	Q57059		Q57062	Q57065	Q57103	Q57104	Q57111		
Sampling Date		2009/08/30	2009/08/30		2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP1-1 Lab-Dup**	**QC Batch**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP2-2**	**2-09-TP3-1**	**2-09-TP9-1**	**RDL**	**QC Batch**
Polycyclic Aromatics											
Low Molecular Weight PAH`s	mg/kg	0.01		3393461	<0.01	0.61	<0.01	<0.01	0.02	0.01	3393461
High Molecular Weight PAH`s	mg/kg	<0.02		3393461	<0.02	2.1	<0.02	<0.02	<0.02	0.02	3393461
Total PAH	mg/kg	<0.02		3393461	<0.02	2.7	<0.02	<0.02	<0.02	0.02	3393461
Naphthalene	mg/kg	0.01	<0.01	3399651	<0.01	0.03	<0.01	<0.01	<0.01	0.01	3400184
2-Methylnaphthalene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	0.02	0.01	3400184
Acenaphthylene	mg/kg	<0.01	<0.01	3399651	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3400184
Acenaphthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Fluorene	mg/kg	<0.01	<0.01	3399651	<0.01	0.04	<0.01	<0.01	<0.01	0.01	3400184
Phenanthrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.60	<0.01	<0.01	<0.01	0.01	3400184
Pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.40	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)anthracene	mg/kg	<0.01	<0.01	3399651	<0.01	0.18	<0.01	<0.01	<0.01	0.01	3400184
Chrysene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Benzo(b&j)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.27	<0.01	<0.01	<0.01	0.01	3400184
Benzo(k)fluoranthene	mg/kg	<0.01	<0.01	3399651	<0.01	0.09	<0.01	<0.01	<0.01	0.01	3400184
Benzo(a)pyrene	mg/kg	<0.01	<0.01	3399651	<0.01	0.19	<0.01	<0.01	<0.01	0.01	3400184
Indeno(1,2,3-cd)pyrene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Dibenz(a,h)anthracene	mg/kg	<0.02	<0.02	3399651	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	3400184
Benzo(g,h,i)perylene	mg/kg	<0.02	<0.02	3399651	<0.02	0.10	<0.02	<0.02	<0.02	0.02	3400184
Surrogate Recovery (%)											
D10-ANTHRACENE (sur.)	%	95	95	3399651	108	107	112	115	114		3400184
D12-BENZO(A)PYRENE (sur.)	%	92	92	3399651	103	102	107	109	108		3400184
D8-ACENAPHTHYLENE (sur.)	%	90	90	3399651	98	98	99	102	102		3400184
TERPHENYL-D14 (sur.)	%	92	94	3399651	95	95	100	101	101		3400184

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Calculated Parameters												
F1 (C06-C10) - BTEX	mg/kg	<10		44	<10	<10	<10	<10	10	4700	300	3393756
Chlorobenzenes												
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Monocyclic Aromatics												
Benzene	mg/kg	<0.005	<0.005	1.2	0.006	<0.005	<0.005	<0.005	0.005	1.0	0.005	3399824
Ethylbenzene	mg/kg	<0.01	<0.01	0.08	<0.01	<0.01	<0.01	<0.01	0.01	5.6	0.01	3399824
m & p-Xylene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	0.1	22	0.1	3399824
o-Xylene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	7.0	0.1	3399824
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Toluene	mg/kg	<0.03	<0.03	0.28	<0.03	<0.03	<0.03	<0.03	0.03	15	0.03	3399824
Xylenes (Total)	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	<0.1	0.1	29	0.1	3399824

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Volatiles												
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<2(1)	2	3399824
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	<0.3	0.3	3399824
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
cis-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	3399824
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	3399824
trans-1,3-dichloropropene	mg/kg	<0.05(2)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	0.05	3399824
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	3399824
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	0.2	3399824
Vinyl chloride	mg/kg	<0.08(2)	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	<0.08	0.08	3399824
Volatile Hydrocarbons												
F1 (C06-C10)	mg/kg	<10	<10	47	<10	<10	<10	<10	10	4800(3)	300	3399909

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56933	Q56933	Q56940	Q56941	Q56950	Q56979	Q56980		Q56984		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/30	2009/08/30		2009/08/30		
	Units	**3-09-1-1**	**3-09-1-1 Lab-Dup**	**3-09-4M-3**	**3-09-DUP-1**	**1-09-2M-1**	**1-09-5M-1**	**1-09-6M-1**	**RDL**	**4A-09-3M-1**	**RDL**	**QC Batch**
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	84	85	92	86	84	85	85		72		3399824
D10-ETHYLBENZENE (sur.)	%	107	109	112	106	109	106	108		89		3399824
D4-1,2-DICHLOROETHANE (sur.)	%	82	83	80	82	82	81	82		80		3399824
D8-TOLUENE (sur.)	%	99	100	103	100	99	100	99		101		3399824

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters											
F1 (C06-C10) - BTEX	mg/kg	4400	300	4300	300	3393756	<10	<10		10	3393756
Chlorobenzenes											
1,2-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics											
Benzene	mg/kg	2.9	0.005	4.6	0.005	3399824	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	6.8	0.01	6.5	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	100(1)	0.5	65(1)	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	34(1)	0.5	11	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	37(1)	0.1	1.5	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	140	0.5	76	0.5	3399824	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit
(1) - RDL raised due to sample dilution.

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Volatiles											
1,1,1,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<9(1)	9	<6(1)	6	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	0.3	<0.3	0.3	3399824	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	0.1	<0.1	0.1	3399824	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	0.03	<0.03	0.03	3399824	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	0.05	<0.05	0.05	3399824	<0.05	<0.05(2)	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	0.01	<0.01	0.01	3399824	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	0.2	<0.2	0.2	3399824	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	0.08	<0.08	0.08	3399824	<0.08	<0.08(2)	<0.08	0.08	3399837
Volatile Hydrocarbons											
F1 (C06-C10)	mg/kg	4600(3)	300	4400(3)	300	3399909	<10	<10	<10	10	3399912

RDL = Reportable Detection Limit
(1) - RDL raised due to sample matrix interference.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed)
(3) - RDL raised due to sample dilution.

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q56986		Q56987			Q57029	Q57032	Q57032		
Sampling Date		2009/08/30		2009/08/30			2009/08/30	2009/08/30	2009/08/30		
	Units	**4A-09-4-1**	**RDL**	**4A-09-5-1**	**RDL**	**QC Batch**	**5-09TP4-3**	**6-09TP1-3**	**6-09TP1-3 Lab-Dup**	**RDL**	**QC Batch**
Surrogate Recovery (%)											
4-BROMOFLUOROBENZENE (sur.)	%	74		80		3399824	86	87	86		3399837
D10-ETHYLBENZENE (sur.)	%	89		89		3399824	109	107	104		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	81		84		3399824	80	81	81		3399837
D8-TOLUENE (sur.)	%	106		103		3399824	101	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57059	Q57062	Q57065	Q57101	Q57103	Q57104		
Sampling Date		2009/08/30	2009/08/30	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**5-09-TP1-1**	**5-09-TP2-1**	**5-09-TP3-1**	**2-09-TP1-2**	**2-09-TP2-2**	**2-09-TP3-1**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	96	86	86	87	86	85		3399837
D10-ETHYLBENZENE (sur.)	%	99	106	107	94	109	106		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	102	81	79	81	79	79		3399837
D8-TOLUENE (sur.)	%	99	100	100	100	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Calculated Parameters									
F1 (C06-C10) - BTEX	mg/kg	<10	<10	<10	<10	<10	<10	10	3393756
Chlorobenzenes									
1,2-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,3-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,4-dichlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorobenzene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Monocyclic Aromatics									
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	3399837
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
m & p-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
o-Xylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Styrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Toluene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Xylenes (Total)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOC + F1 SOILS (CCME)

Maxxam ID		Q57106	Q57107	Q57108	Q57109	Q57114	Q57115		
Sampling Date		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**2-09-TP4**	**2-09-TP5-1**	**2-09-TP6-1**	**2-09-TP7-1**	**2-09-TP10-1**	**GR2**	**RDL**	**QC Batch**
Volatiles									
1,1,1,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,1-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2,2-tetrachloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1,2-trichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,1-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloroethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
1,2-dichloropropane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Bromodichloromethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromoform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Bromomethane	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3399837
Carbon tetrachloride	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Chlorodibromomethane	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloroethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Chloroform	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Chloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
cis-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
cis-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Dibromoethane	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
Dichloromethane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Methyl-tert-butylether (MTBE)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3399837
Tetrachloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,2-dichloroethene	mg/kg	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	3399837
trans-1,3-dichloropropene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3399837
Trichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	3399837
Trichlorofluoromethane	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	3399837
Vinyl chloride	mg/kg	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08	3399837
Volatile Hydrocarbons									
F1 (C06-C10)	mg/kg	<10	<10	<10	<10	<10	<10	10	3399912
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	85	86	84	85	85	90		3399837
D10-ETHYLBENZENE (sur.)	%	104	105	106	101	103	91		3399837
D4-1,2-DICHLOROETHANE (sur.)	%	80	81	80	79	79	83		3399837
D8-TOLUENE (sur.)	%	100	100	99	99	100	100		3399837

RDL = Reportable Detection Limit

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Package 1	2.0°C
Package 2	5.0°C
Package 3	9.0°C
Package 4	9.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3395524	Moisture	2009/09/05					<0.3	%	2.6	20		
3395624	Moisture	2009/09/05					<0.3	%	0	20		
3395627	Moisture	2009/09/05					<0.3	%	9.2	20		
3396608	D10-ANTHRACENE (sur.)	2009/09/05			86	30 - 130	101	%				
3396608	D12-BENZO(A)PYRENE (sur.)	2009/09/05			84	30 - 130	94	%				
3396608	D8-ACENAPHTHYLENE (sur.)	2009/09/05			82	30 - 130	96	%				
3396608	TERPHENYL-D14 (sur.)	2009/09/05			86	30 - 130	100	%				
3396608	Naphthalene	2009/09/05	87	50 - 130	100	50 - 130	<0.01	mg/kg	NC	50		
3396608	2-Methylnaphthalene	2009/09/05	88	50 - 130	101	50 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthylene	2009/09/05	80	50 - 130	90	50 - 130	<0.01	mg/kg	NC	50		
3396608	Acenaphthene	2009/09/05	86	50 - 130	98	50 - 130	<0.01	mg/kg	NC	50		
3396608	Fluorene	2009/09/05	81	50 - 130	96	50 - 130	<0.01	mg/kg	NC	50		
3396608	Phenanthrene	2009/09/05	88	60 - 130	101	60 - 130	<0.01	mg/kg	NC	50		
3396608	Anthracene	2009/09/05	83	60 - 130	96	60 - 130	<0.01	mg/kg	NC	50		
3396608	Fluoranthene	2009/09/05	83	60 - 130	100	60 - 130	<0.01	mg/kg	NC	50		
3396608	Pyrene	2009/09/05	85	60 - 130	97	60 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)anthracene	2009/09/05	81	60 - 130	91	60 - 130	<0.01	mg/kg	NC	50		
3396608	Chrysene	2009/09/05	81	60 - 130	92	60 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(b&j)fluoranthene	2009/09/05	85	60 - 130	101	60 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(k)fluoranthene	2009/09/05	82	60 - 130	95	60 - 130	<0.01	mg/kg	NC	50		
3396608	Benzo(a)pyrene	2009/09/05	86	60 - 130	97	60 - 130	<0.01	mg/kg	NC	50		
3396608	Indeno(1,2,3-cd)pyrene	2009/09/05	75	60 - 130	78	60 - 130	<0.02	mg/kg	NC	50		
3396608	Dibenz(a,h)anthracene	2009/09/05	72	60 - 130	76	60 - 130	<0.02	mg/kg	NC	50		
3396608	Benzo(g,h,i)perylene	2009/09/05	75	60 - 130	82	60 - 130	<0.02	mg/kg	NC	50		
3397567	D10-ANTHRACENE (sur.)	2009/09/05			91	30 - 130	101	%				
3397567	D12-BENZO(A)PYRENE (sur.)	2009/09/05			87	30 - 130	93	%				
3397567	D8-ACENAPHTHYLENE (sur.)	2009/09/05			89	30 - 130	96	%				
3397567	TERPHENYL-D14 (sur.)	2009/09/05			90	30 - 130	97	%				
3397567	Naphthalene	2009/09/05			106	50 - 130	<0.01	mg/kg	3.9	50		
3397567	2-Methylnaphthalene	2009/09/05			108	50 - 130	<0.01	mg/kg	2.8	50		
3397567	Acenaphthylene	2009/09/05			101	50 - 130	<0.01	mg/kg	3.0	50		
3397567	Acenaphthene	2009/09/05			102	50 - 130	<0.01	mg/kg	9.6	50		
3397567	Fluorene	2009/09/05			106	50 - 130	<0.01	mg/kg	9.0	50		
3397567	Phenanthrene	2009/09/05			110	60 - 130	<0.01	mg/kg	5.6	50		
3397567	Anthracene	2009/09/05			110	60 - 130	<0.01	mg/kg	7.4	50		
3397567	Fluoranthene	2009/09/05			109	60 - 130	<0.01	mg/kg	0.2	50		
3397567	Pyrene	2009/09/05			105	60 - 130	<0.01	mg/kg	1.4	50		
3397567	Benzo(a)anthracene	2009/09/05			102	60 - 130	<0.01	mg/kg	8.3	50		
3397567	Chrysene	2009/09/05			104	60 - 130	<0.01	mg/kg	5.4	50		
3397567	Benzo(b&j)fluoranthene	2009/09/05			103	60 - 130	<0.01	mg/kg	4.3	50		

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3397567	Benzo(k)fluoranthene	2009/09/05			108	60 - 130	<0.01	mg/kg	3.5	50		
3397567	Benzo(a)pyrene	2009/09/05			107	60 - 130	<0.01	mg/kg	1.8	50		
3397567	Indeno(1,2,3-cd)pyrene	2009/09/05			101	60 - 130	<0.02	mg/kg	6.1	50		
3397567	Dibenz(a,h)anthracene	2009/09/05			102	60 - 130	<0.02	mg/kg	5.1	50		
3397567	Benzo(g,h,i)perylene	2009/09/05			103	60 - 130	<0.02	mg/kg	5.6	50		
3398109	O-TERPHENYL (sur.)	2009/09/08			75	50 - 130	82	%				
3398109	F2 (C10-C16 Hydrocarbons)	2009/09/08			104	80 - 120	<10	mg/kg	NC	40		
3398109	F3 (C16-C34 Hydrocarbons)	2009/09/08			110	80 - 120	<10	mg/kg	3.3	40		
3398109	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.9	40		
3398109	Reached Baseline at C50	2009/09/08					YES, RDL=N/A	mg/kg	NC	50		
3398448	Benzene	2009/09/05			95	60 - 140	<0.005	mg/kg	NC	40		
3398448	Ethylbenzene	2009/09/05			108	60 - 140	<0.01	mg/kg	NC	40		
3398448	m & p-Xylene	2009/09/05			108	60 - 140	<0.1	mg/kg	NC	40		
3398448	o-Xylene	2009/09/05			110	60 - 140	<0.1	mg/kg	NC	40		
3398448	Toluene	2009/09/05			98	60 - 140	<0.05	mg/kg	NC	40		
3398448	4-BROMOFLUOROBENZENE (sur.)	2009/09/04			100	70 - 130	98	%			99	70 - 130
3398448	D10-ETHYLBENZENE (sur.)	2009/09/04			91	50 - 130	95	%			91	50 - 130
3398448	D4-1,2-DICHLOROETHANE (sur.)	2009/09/04			94	70 - 130	101	%			96	70 - 130
3398448	D8-TOLUENE (sur.)	2009/09/04			102	70 - 130	102	%			104	70 - 130
3398448	(C6-C10)	2009/09/05					<10	mg/kg	NC	40	83	60 - 140
3398448	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Xylenes (Total)	2009/09/05					<0.1	mg/kg	NC	40		
3398448	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Benzene	2009/09/05	97	60 - 140	97	60 - 140	<0.005	mg/kg	NC	40		
3398449	Ethylbenzene	2009/09/05	102	60 - 140	108	60 - 140	<0.01	mg/kg	3.5	40		
3398449	m & p-Xylene	2009/09/05	94	60 - 140	106	60 - 140	<0.1	mg/kg	5.2	40		
3398449	o-Xylene	2009/09/05	98	60 - 140	107	60 - 140	<0.1	mg/kg	9.7	40		
3398449	Toluene	2009/09/05	95	60 - 140	96	60 - 140	<0.05	mg/kg	NC	40		
3398449	4-BROMOFLUOROBENZENE (sur.)	2009/09/05			102	70 - 130	98	%			102	70 - 130
3398449	D10-ETHYLBENZENE (sur.)	2009/09/05			96	50 - 130	107	%			96	50 - 130
3398449	D4-1,2-DICHLOROETHANE (sur.)	2009/09/05			99	70 - 130	97	%			99	70 - 130
3398449	D8-TOLUENE (sur.)	2009/09/05			102	70 - 130	102	%			102	70 - 130
3398449	(C6-C10)	2009/09/05					<10	mg/kg	9.7	40	103	60 - 140
3398449	Styrene	2009/09/05					<0.1	mg/kg	NC	40		
3398449	Xylenes (Total)	2009/09/05					<0.1	mg/kg	6.6	40		
3398449	Methyl-tert-butylether(MTBE)	2009/09/05					<0.1	mg/kg	NC	40		
3398902	<200 mesh (>.075 mm)	2009/09/08							0.7	30		
3398902	>200 mesh (<.075 mm)	2009/09/08							1.2	30		
3399617	Benzene	2009/09/06	95	60 - 140	87	60 - 140	<0.005	mg/kg	NC	40		
3399617	Ethylbenzene	2009/09/06	100	60 - 140	95	60 - 140	<0.01	mg/kg	NC	40		

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399617	m & p-Xylene	2009/09/06	99	60 - 140	95	60 - 140	<0.1	mg/kg	NC	40		
3399617	o-Xylene	2009/09/06	103	60 - 140	98	60 - 140	<0.1	mg/kg	NC	40		
3399617	Toluene	2009/09/06	93	60 - 140	87	60 - 140	<0.05	mg/kg	NC	40		
3399617	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			103	70 - 130	99	%			102	70 - 130
3399617	D10-ETHYLBENZENE (sur.)	2009/09/06			92	50 - 130	99	%			91	50 - 130
3399617	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			102	70 - 130	98	%			104	70 - 130
3399617	D8-TOLUENE (sur.)	2009/09/06			99	70 - 130	100	%			99	70 - 130
3399617	(C6-C10)	2009/09/06					<10	mg/kg	NC	40	83	60 - 140
3399617	Styrene	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	40		
3399617	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	40		
3399651	D10-ANTHRACENE (sur.)	2009/09/06			96	30 - 130	99	%				
3399651	D12-BENZO(A)PYRENE (sur.)	2009/09/06			93	30 - 130	93	%				
3399651	D8-ACENAPHTHYLENE (sur.)	2009/09/06			91	30 - 130	94	%				
3399651	TERPHENYL-D14 (sur.)	2009/09/06			91	30 - 130	96	%				
3399651	Naphthalene	2009/09/06	91	50 - 130	86	50 - 130	<0.01	mg/kg	NC	50		
3399651	2-Methylnaphthalene	2009/09/06	93	50 - 130	86	50 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthylene	2009/09/06	84	50 - 130	78	50 - 130	<0.01	mg/kg	NC	50		
3399651	Acenaphthene	2009/09/06	89	50 - 130	84	50 - 130	<0.01	mg/kg	NC	50		
3399651	Fluorene	2009/09/06	88	50 - 130	82	50 - 130	<0.01	mg/kg	NC	50		
3399651	Phenanthrene	2009/09/06	91	60 - 130	88	60 - 130	<0.01	mg/kg	NC	50		
3399651	Anthracene	2009/09/06	88	60 - 130	83	60 - 130	<0.01	mg/kg	NC	50		
3399651	Fluoranthene	2009/09/06	90	60 - 130	84	60 - 130	<0.01	mg/kg	NC	50		
3399651	Pyrene	2009/09/06	86	60 - 130	82	60 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)anthracene	2009/09/06	86	60 - 130	78	60 - 130	<0.01	mg/kg	NC	50		
3399651	Chrysene	2009/09/06	83	60 - 130	80	60 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(b&j)fluoranthene	2009/09/06	90	60 - 130	80	60 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(k)fluoranthene	2009/09/06	92	60 - 130	88	60 - 130	<0.01	mg/kg	NC	50		
3399651	Benzo(a)pyrene	2009/09/06	93	60 - 130	86	60 - 130	<0.01	mg/kg	NC	50		
3399651	Indeno(1,2,3-cd)pyrene	2009/09/06	90	60 - 130	82	60 - 130	<0.02	mg/kg	NC	50		
3399651	Dibenz(a,h)anthracene	2009/09/06	91	60 - 130	83	60 - 130	<0.02	mg/kg	NC	50		
3399651	Benzo(g,h,i)perylene	2009/09/06	88	60 - 130	81	60 - 130	<0.02	mg/kg	NC	50		
3399824	1,2-dichlorobenzene	2009/09/07	104	60 - 140	101	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,3-dichlorobenzene	2009/09/07	108	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,4-dichlorobenzene	2009/09/07	99	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorobenzene	2009/09/07	102	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	Benzene	2009/09/07	102	60 - 140	95	60 - 140	<0.005	mg/kg	NC	50		
3399824	Ethylbenzene	2009/09/07	111	60 - 140	103	60 - 140	<0.01	mg/kg	NC	50		
3399824	m & p-Xylene	2009/09/07	115	60 - 140	106	60 - 140	<0.1	mg/kg	NC	50		
3399824	o-Xylene	2009/09/07	105	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399824	Styrene	2009/09/07	100	60 - 140	94	60 - 140	<0.1	mg/kg	NC	50		
3399824	Toluene	2009/09/07	99	60 - 140	91	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1,2-tetrachloroethane	2009/09/07	103	60 - 140	95	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,1-trichloroethane	2009/09/07	113	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2,2-tetrachloroethane	2009/09/07	80	60 - 140	78	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1,2-trichloroethane	2009/09/07	87	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethane	2009/09/07	106	60 - 140	98	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,1-dichloroethene	2009/09/07	117	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloroethane	2009/09/07	89	60 - 140	82	60 - 140	<0.03	mg/kg	NC	50		
3399824	1,2-dichloropropane	2009/09/07	101	60 - 140	94	60 - 140	<0.03	mg/kg	NC	50		
3399824	4-BROMOFLUOROBENZENE (sur.)	2009/09/07			101	70 - 130	86	%				
3399824	Bromodichloromethane	2009/09/07	96	60 - 140	88	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromoform	2009/09/07	72	60 - 140	68	60 - 140	<0.05	mg/kg	NC	50		
3399824	Bromomethane	2009/09/07	69	40 - 150	71	40 - 150	<0.3	mg/kg	NC	50		
3399824	Carbon tetrachloride	2009/09/07	118	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399824	Chlorodibromomethane	2009/09/07	92	60 - 140	86	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloroethane	2009/09/07	52	40 - 150	107	40 - 150	<0.1	mg/kg	NC	50		
3399824	Chloroform	2009/09/07	103	60 - 140	95	60 - 140	<0.05	mg/kg	NC	50		
3399824	Chloromethane	2009/09/07	99	40 - 150	94	40 - 150	<0.1	mg/kg	NC	50		
3399824	cis-1,2-dichloroethene	2009/09/07	104	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399824	cis-1,3-dichloropropene	2009/09/07	55 (1)	60 - 140	57 (1, 2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	D10-ETHYLBENZENE (sur.)	2009/09/07			97	50 - 130	105	%				
3399824	D4-1,2-DICHLOROETHANE (sur.)	2009/09/07			85	70 - 130	82	%				
3399824	D8-TOLUENE (sur.)	2009/09/07			103	70 - 130	100	%				
3399824	Dibromoethane	2009/09/07	85	60 - 140	79	60 - 140	<0.03	mg/kg	NC	50		
3399824	Dichloromethane	2009/09/07	87	60 - 140	80	60 - 140	<0.1	mg/kg	NC	50		
3399824	Tetrachloroethene	2009/09/07	115	60 - 140	105	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,2-dichloroethene	2009/09/07	112	60 - 140	104	60 - 140	<0.03	mg/kg	NC	50		
3399824	trans-1,3-dichloropropene	2009/09/07	41 (1)	60 - 140	44 (1, 2)	60 - 140	<0.05	mg/kg	NC	50		
3399824	Trichloroethene	2009/09/07	114	60 - 140	105	60 - 140	<0.01	mg/kg	NC	50		
3399824	Trichlorofluoromethane	2009/09/07	116	40 - 150	106	40 - 150	<0.2	mg/kg	NC	50		
3399824	Vinyl chloride	2009/09/07	24 (1)	40 - 150	24 (1, 2)	40 - 150	<0.08	mg/kg	NC	50		
3399824	Xylenes (Total)	2009/09/07					<0.1	mg/kg	NC	50		
3399824	Methyl-tert-butylether(MTBE)	2009/09/07					<0.1	mg/kg	NC	50		
3399837	1,2-dichlorobenzene	2009/09/06	106	60 - 140	102	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,3-dichlorobenzene	2009/09/06	108	60 - 140	107	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,4-dichlorobenzene	2009/09/06	99	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorobenzene	2009/09/06	102	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	Benzene	2009/09/06	102	60 - 140	99	60 - 140	<0.005	mg/kg	NC	50		
3399837	Ethylbenzene	2009/09/06	111	60 - 140	107	60 - 140	<0.01	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399837	m & p-Xylene	2009/09/06	116	60 - 140	112	60 - 140	<0.1	mg/kg	NC	50		
3399837	o-Xylene	2009/09/06	107	60 - 140	103	60 - 140	<0.1	mg/kg	NC	50		
3399837	Styrene	2009/09/06	103	60 - 140	99	60 - 140	<0.1	mg/kg	NC	50		
3399837	Toluene	2009/09/06	98	60 - 140	96	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1,2-tetrachloroethane	2009/09/06	104	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,1-trichloroethane	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2,2-tetrachloroethane	2009/09/06	81	60 - 140	81	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1,2-trichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethane	2009/09/06	106	60 - 140	103	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,1-dichloroethene	2009/09/06	115	60 - 140	109	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloroethane	2009/09/06	88	60 - 140	86	60 - 140	<0.03	mg/kg	NC	50		
3399837	1,2-dichloropropane	2009/09/06	101	60 - 140	99	60 - 140	<0.03	mg/kg	NC	50		
3399837	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			99	70 - 130	84	%				
3399837	Bromodichloromethane	2009/09/06	96	60 - 140	92	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromoform	2009/09/06	73	60 - 140	70	60 - 140	<0.05	mg/kg	NC	50		
3399837	Bromomethane	2009/09/06	72	40 - 150	66	40 - 150	<0.3	mg/kg	NC	50		
3399837	Carbon tetrachloride	2009/09/06	116	60 - 140	111	60 - 140	<0.03	mg/kg	NC	50		
3399837	Chlorodibromomethane	2009/09/06	93	60 - 140	89	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloroethane	2009/09/06	110	40 - 150	48	40 - 150	<0.1	mg/kg	NC	50		
3399837	Chloroform	2009/09/06	102	60 - 140	99	60 - 140	<0.05	mg/kg	NC	50		
3399837	Chloromethane	2009/09/06	87	40 - 150	88	40 - 150	<0.1	mg/kg	NC	50		
3399837	cis-1,2-dichloroethene	2009/09/06	103	60 - 140	100	60 - 140	<0.03	mg/kg	NC	50		
3399837	cis-1,3-dichloropropene	2009/09/06	69	60 - 140	67	60 - 140	<0.05	mg/kg	NC	50		
3399837	D10-ETHYLBENZENE (sur.)	2009/09/06			99	50 - 130	106	%				
3399837	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			84	70 - 130	79	%				
3399837	D8-TOLUENE (sur.)	2009/09/06			102	70 - 130	100	%				
3399837	Dibromoethane	2009/09/06	85	60 - 140	83	60 - 140	<0.03	mg/kg	NC	50		
3399837	Dichloromethane	2009/09/06	86	60 - 140	84	60 - 140	<0.1	mg/kg	NC	50		
3399837	Tetrachloroethene	2009/09/06	114	60 - 140	110	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,2-dichloroethene	2009/09/06	112	60 - 140	108	60 - 140	<0.03	mg/kg	NC	50		
3399837	trans-1,3-dichloropropene	2009/09/06	53(1)	60 - 140	52(1, 2)	60 - 140	<0.05	mg/kg	NC	50		
3399837	Trichloroethene	2009/09/06	113	60 - 140	109	60 - 140	<0.01	mg/kg	NC	50		
3399837	Trichlorofluoromethane	2009/09/06	108	40 - 150	105	40 - 150	<0.2	mg/kg	NC	50		
3399837	Vinyl chloride	2009/09/06	22(1)	40 - 150	20(1, 2)	40 - 150	<0.08	mg/kg	NC	50		
3399837	Xylenes (Total)	2009/09/06					<0.1	mg/kg	NC	50		
3399837	Methyl-tert-butylether(MTBE)	2009/09/06					<0.1	mg/kg	NC	50		
3399909	F1 (C06-C10)	2009/09/07					<10	mg/kg	NC	50	87	60 - 140
3399912	F1 (C06-C10)	2009/09/06					<10	mg/kg	NC	50	97	60 - 140
3400091	O-TERPHENYL (sur.)	2009/09/08			96	50 - 130	101	%				
3400091	F2 (C10-C16 Hydrocarbons)	2009/09/08			98	80 - 120	<10	mg/kg	NC	40		

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400091	F3 (C16-C34 Hydrocarbons)	2009/09/08			105	80 - 120	<10	mg/kg	32.3	40		
3400091	F4 (C34-C50 Hydrocarbons)	2009/09/08			116	80 - 120	<10	mg/kg	20.3	40		
3400091	Reached Baseline at C50	2009/09/08			YES	N/A	YES, RDL=N/A	mg/kg	NC	50		
3400175	D10-ANTHRACENE (sur.)	2009/09/08			92	30 - 130	118	%				
3400175	D12-BENZO(A)PYRENE (sur.)	2009/09/08			88	30 - 130	111	%				
3400175	D8-ACENAPHTHYLENE (sur.)	2009/09/08			87	30 - 130	107	%				
3400175	TERPHENYL-D14 (sur.)	2009/09/08			86	30 - 130	108	%				
3400175	Naphthalene	2009/09/08			107	50 - 130	<0.01	mg/kg	NC	50		
3400175	2-Methylnaphthalene	2009/09/08			108	50 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthylene	2009/09/08			94	50 - 130	<0.01	mg/kg	NC	50		
3400175	Acenaphthene	2009/09/08			99	50 - 130	<0.01	mg/kg	NC	50		
3400175	Fluorene	2009/09/08			96	50 - 130	<0.01	mg/kg	NC	50		
3400175	Phenanthrene	2009/09/08			110	60 - 130	<0.01	mg/kg	NC	50		
3400175	Anthracene	2009/09/08			106	60 - 130	<0.01	mg/kg	NC	50		
3400175	Fluoranthene	2009/09/08			106	60 - 130	<0.01	mg/kg	NC	50		
3400175	Pyrene	2009/09/08			100	60 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)anthracene	2009/09/08			101	60 - 130	<0.01	mg/kg	NC	50		
3400175	Chrysene	2009/09/08			100	60 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(b&j)fluoranthene	2009/09/08			106	60 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(k)fluoranthene	2009/09/08			108	60 - 130	<0.01	mg/kg	NC	50		
3400175	Benzo(a)pyrene	2009/09/08			105	60 - 130	<0.01	mg/kg	NC	50		
3400175	Indeno(1,2,3-cd)pyrene	2009/09/08			93	60 - 130	<0.02	mg/kg	NC	50		
3400175	Dibenz(a,h)anthracene	2009/09/08			93	60 - 130	<0.02	mg/kg	NC	50		
3400175	Benzo(g,h,i)perylene	2009/09/08			90	60 - 130	<0.02	mg/kg	NC	50		
3400184	D10-ANTHRACENE (sur.)	2009/09/09			92	30 - 130	115	%				
3400184	D12-BENZO(A)PYRENE (sur.)	2009/09/09			93	30 - 130	109	%				
3400184	D8-ACENAPHTHYLENE (sur.)	2009/09/09			92	30 - 130	103	%				
3400184	TERPHENYL-D14 (sur.)	2009/09/09			91	30 - 130	104	%				
3400184	Naphthalene	2009/09/09			101	50 - 130	<0.01	mg/kg	22.0	50		
3400184	2-Methylnaphthalene	2009/09/09			103	50 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthylene	2009/09/09			91	50 - 130	<0.01	mg/kg	NC	50		
3400184	Acenaphthene	2009/09/09			97	50 - 130	<0.01	mg/kg	NC	50		
3400184	Fluorene	2009/09/09			100	50 - 130	<0.01	mg/kg	NC	50		
3400184	Phenanthrene	2009/09/09			99	60 - 130	<0.01	mg/kg	NC	50		
3400184	Anthracene	2009/09/09			98	60 - 130	<0.01	mg/kg	NC	50		
3400184	Fluoranthene	2009/09/09			97	60 - 130	<0.01	mg/kg	NC	50		
3400184	Pyrene	2009/09/09			91	60 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)anthracene	2009/09/09			91	60 - 130	<0.01	mg/kg	NC	50		
3400184	Chrysene	2009/09/09			92	60 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(b&j)fluoranthene	2009/09/09			94	60 - 130	<0.01	mg/kg	NC	50		

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400184	Benzo(k)fluoranthene	2009/09/09			100	60 - 130	<0.01	mg/kg	NC	50		
3400184	Benzo(a)pyrene	2009/09/09			95	60 - 130	<0.01	mg/kg	NC	50		
3400184	Indeno(1,2,3-cd)pyrene	2009/09/09			97	60 - 130	<0.02	mg/kg	NC	50		
3400184	Dibenz(a,h)anthracene	2009/09/09			94	60 - 130	<0.02	mg/kg	NC	50		
3400184	Benzo(g,h,i)perylene	2009/09/09			97	60 - 130	<0.02	mg/kg	NC	50		
3401373	D10-ANTHRACENE (sur.)	2009/09/09			96	30 - 130	116	%				
3401373	D12-BENZO(A)PYRENE (sur.)	2009/09/09			92	30 - 130	106	%				
3401373	D8-ACENAPHTHYLENE (sur.)	2009/09/09			95	30 - 130	103	%				
3401373	TERPHENYL-D14 (sur.)	2009/09/09			92	30 - 130	102	%				
3401373	Naphthalene	2009/09/09			94	50 - 130	<0.01	mg/kg	NC	50		
3401373	2-Methylnaphthalene	2009/09/09			97	50 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthylene	2009/09/09			88	50 - 130	<0.01	mg/kg	NC	50		
3401373	Acenaphthene	2009/09/09			96	50 - 130	<0.01	mg/kg	NC	50		
3401373	Fluorene	2009/09/09			99	50 - 130	<0.01	mg/kg	NC	50		
3401373	Phenanthrene	2009/09/09			101	60 - 130	<0.01	mg/kg	NC	50		
3401373	Anthracene	2009/09/09			89	60 - 130	<0.01	mg/kg	NC	50		
3401373	Fluoranthene	2009/09/09			95	60 - 130	<0.01	mg/kg	NC	50		
3401373	Pyrene	2009/09/09			91	60 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)anthracene	2009/09/09			90	60 - 130	<0.01	mg/kg	NC	50		
3401373	Chrysene	2009/09/09			89	60 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(b&j)fluoranthene	2009/09/09			92	60 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(k)fluoranthene	2009/09/09			93	60 - 130	<0.01	mg/kg	NC	50		
3401373	Benzo(a)pyrene	2009/09/09			94	60 - 130	<0.01	mg/kg	NC	50		
3401373	Indeno(1,2,3-cd)pyrene	2009/09/09			89	60 - 130	<0.02	mg/kg	NC	50		
3401373	Dibenz(a,h)anthracene	2009/09/09			89	60 - 130	<0.02	mg/kg	NC	50		
3401373	Benzo(g,h,i)perylene	2009/09/09			89	60 - 130	<0.02	mg/kg	NC	50		
3401543	Total Arsenic (As)	2009/09/09			100	75 - 125	<0.2	mg/kg	0.6	30	92	70 - 130
3401543	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3401543	Total Cadmium (Cd)	2009/09/09			103	75 - 125	<0.05	mg/kg	0.05	30	83	70 - 130
3401543	Total Chromium (Cr)	2009/09/09			102	75 - 125	<1	mg/kg	3.8	30	98	70 - 130
3401543	Total Cobalt (Co)	2009/09/09			102	75 - 125	<0.3	mg/kg	2.6	30	94	70 - 130
3401543	Total Copper (Cu)	2009/09/09			103	75 - 125	<0.5	mg/kg	0.4	30	94	70 - 130
3401543	Total Lead (Pb)	2009/09/09			100	75 - 125	<0.1	mg/kg	1.9	35	98	70 - 130
3401543	Total Mercury (Hg)	2009/09/09			107	75 - 125	<0.05	mg/kg	NC	35		
3401543	Total Nickel (Ni)	2009/09/09			104	75 - 125	<0.8	mg/kg	1.2	30	94	70 - 130
3401543	Total Selenium (Se)	2009/09/09			107	75 - 125	<0.5	mg/kg	NC	30		
3401543	Total Vanadium (V)	2009/09/09			122	75 - 125	2, RDL=2	mg/kg	0.9	30	124	70 - 130
3401543	Total Zinc (Zn)	2009/09/09			108	75 - 125	<1	mg/kg	1.4	30	97	70 - 130
3401543	Total Aluminum (Al)	2009/09/09					<100	mg/kg	1	35	107	70 - 130
3401543	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	1.4	30	100	70 - 130

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401543	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	1	35	111	70 - 130
3401543	Total Calcium (Ca)	2009/09/09					<100	mg/kg	0.5	30	91	70 - 130
3401543	Total Iron (Fe)	2009/09/09					<100	mg/kg	2.1	30	102	70 - 130
3401543	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.1	30	99	70 - 130
3401543	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	7.2	30	100	70 - 130
3401543	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	2.3	35	91	70 - 130
3401543	Total Phosphorus (P)	2009/09/09					<10	mg/kg	5.1	30	101	70 - 130
3401543	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	1.5	35	95	70 - 130
3401543	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	1.5	35	102	70 - 130
3401543	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	90	70 - 130
3401543	Total Titanium (Ti)	2009/09/09					<1	mg/kg	2.2	35	120	70 - 130
3401543	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	8.9	30		
3401543	Total Potassium (K)	2009/09/09					<100	mg/kg	4.8	35		
3401543	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401543	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	3.9	35		
3401543	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	17.3	30		
3401600	Total Arsenic (As)	2009/09/09	101	75 - 125	97	75 - 125	<0.2	mg/kg	2.3	30	83	70 - 130
3401600	Total Beryllium (Be)	2009/09/09	106	75 - 125	97	75 - 125	<0.1	mg/kg	NC	30		
3401600	Total Cadmium (Cd)	2009/09/09	106	75 - 125	98	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3401600	Total Chromium (Cr)	2009/09/09	109	75 - 125	103	75 - 125	<1	mg/kg	12.0	30	97	70 - 130
3401600	Total Cobalt (Co)	2009/09/09	104	75 - 125	103	75 - 125	<0.3	mg/kg	8.5	30	88	70 - 130
3401600	Total Copper (Cu)	2009/09/09	104	75 - 125	103	75 - 125	<0.5	mg/kg	11.1	30	89	70 - 130
3401600	Total Lead (Pb)	2009/09/09	103	75 - 125	100	75 - 125	<0.1	mg/kg	8.6	35	91	70 - 130
3401600	Total Mercury (Hg)	2009/09/09	107	75 - 125	106	75 - 125	<0.05	mg/kg	NC	35		
3401600	Total Nickel (Ni)	2009/09/09	102	75 - 125	101	75 - 125	<0.8	mg/kg	9.7	30	89	70 - 130
3401600	Total Selenium (Se)	2009/09/09	111	75 - 125	108	75 - 125	<0.5	mg/kg	NC	30		
3401600	Total Vanadium (V)	2009/09/09	NC	75 - 125	122	75 - 125	<2	mg/kg	10.1	30	119	70 - 130
3401600	Total Zinc (Zn)	2009/09/09	105	75 - 125	108	75 - 125	<1	mg/kg	12.8	30	92	70 - 130
3401600	Total Aluminum (Al)	2009/09/09					<100	mg/kg	12.0	35	103	70 - 130
3401600	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	83	70 - 130
3401600	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	8.7	35	103	70 - 130
3401600	Total Calcium (Ca)	2009/09/09					<100	mg/kg	4.2	30	89	70 - 130
3401600	Total Iron (Fe)	2009/09/09					<100	mg/kg	10.1	30	96	70 - 130
3401600	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	7.5	30	95	70 - 130
3401600	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	6.2	30	93	70 - 130
3401600	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	NC	35	94	70 - 130
3401600	Total Phosphorus (P)	2009/09/09					<10	mg/kg	2.8	30	94	70 - 130
3401600	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	84	70 - 130
3401600	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	8.0	35	94	70 - 130
3401600	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	78	70 - 130

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3401600	Total Titanium (Ti)	2009/09/09					<1	mg/kg	11.0	35	113	70 - 130
3401600	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3401600	Total Potassium (K)	2009/09/09					<100	mg/kg	7.2	35		
3401600	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3401600	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3401600	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	11.5	30		
3402570	Total Arsenic (As)	2009/09/10			101	75 - 125	<0.2	mg/kg	3.2	30	90	70 - 130
3402570	Total Beryllium (Be)	2009/09/10			103	75 - 125	<0.1	mg/kg	NC	30		
3402570	Total Cadmium (Cd)	2009/09/10			101	75 - 125	<0.05	mg/kg	2.3	30	78	70 - 130
3402570	Total Chromium (Cr)	2009/09/10			102	75 - 125	<1	mg/kg	1.3	30	88	70 - 130
3402570	Total Cobalt (Co)	2009/09/10			104	75 - 125	<0.3	mg/kg	1.2	30	87	70 - 130
3402570	Total Copper (Cu)	2009/09/10			106	75 - 125	<0.5	mg/kg	1.5	30	88	70 - 130
3402570	Total Lead (Pb)	2009/09/10			101	75 - 125	<0.1	mg/kg	1.3	35	93	70 - 130
3402570	Total Mercury (Hg)	2009/09/10			109	75 - 125	<0.05	mg/kg	NC	35		
3402570	Total Nickel (Ni)	2009/09/10			103	75 - 125	<0.8	mg/kg	0.9	30	86	70 - 130
3402570	Total Selenium (Se)	2009/09/10			108	75 - 125	<0.5	mg/kg	NC	30		
3402570	Total Vanadium (V)	2009/09/10			123	75 - 125	<2	mg/kg	2.3	30	110	70 - 130
3402570	Total Zinc (Zn)	2009/09/10			110	75 - 125	<1	mg/kg	3.4	30	90	70 - 130
3402570	Total Aluminum (Al)	2009/09/10					<100	mg/kg	15.4	35	88	70 - 130
3402570	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	89	70 - 130
3402570	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	2.3	35	106	70 - 130
3402570	Total Calcium (Ca)	2009/09/10					<100	mg/kg	4.6	30	89	70 - 130
3402570	Total Iron (Fe)	2009/09/10					<100	mg/kg	1	30	93	70 - 130
3402570	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.6	30	91	70 - 130
3402570	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	3.6	30	96	70 - 130
3402570	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	6.2	35	74	70 - 130
3402570	Total Phosphorus (P)	2009/09/10					<10	mg/kg	1.7	30	104	70 - 130
3402570	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	88	70 - 130
3402570	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	1.6	35	97	70 - 130
3402570	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	76	70 - 130
3402570	Total Titanium (Ti)	2009/09/10					<1	mg/kg	1.6	35	105	70 - 130
3402570	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402570	Total Potassium (K)	2009/09/10					<100	mg/kg	13.1	35		
3402570	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402570	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402570	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3402612	Total Arsenic (As)	2009/09/10			103	75 - 125	<0.2	mg/kg	0.6	30	86	70 - 130
3402612	Total Beryllium (Be)	2009/09/10			107	75 - 125	<0.1	mg/kg	NC	30		
3402612	Total Cadmium (Cd)	2009/09/10			103	75 - 125	<0.05	mg/kg	NC	30	81	70 - 130
3402612	Total Chromium (Cr)	2009/09/10			106	75 - 125	<1	mg/kg	1.3	30	91	70 - 130

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3402612	Total Cobalt (Co)	2009/09/10			107	75 - 125	<0.3	mg/kg	1.4	30	89	70 - 130
3402612	Total Copper (Cu)	2009/09/10			109	75 - 125	<0.5	mg/kg	4.8	30	88	70 - 130
3402612	Total Lead (Pb)	2009/09/10			106	75 - 125	<0.1	mg/kg	0.8	35	95	70 - 130
3402612	Total Mercury (Hg)	2009/09/10			112	75 - 125	<0.05	mg/kg	NC	35		
3402612	Total Nickel (Ni)	2009/09/10			105	75 - 125	<0.8	mg/kg	2.3	30	88	70 - 130
3402612	Total Selenium (Se)	2009/09/10			114	75 - 125	<0.5	mg/kg	NC	30		
3402612	Total Vanadium (V)	2009/09/10			115	75 - 125	<2	mg/kg	2.0	30	113	70 - 130
3402612	Total Zinc (Zn)	2009/09/10			115	75 - 125	<1	mg/kg	10.2	30	95	70 - 130
3402612	Total Aluminum (Al)	2009/09/10					<100	mg/kg	3.1	35	96	70 - 130
3402612	Total Antimony (Sb)	2009/09/10					<0.1	mg/kg	NC	30	86	70 - 130
3402612	Total Barium (Ba)	2009/09/10					<0.1	mg/kg	1.2	35	107	70 - 130
3402612	Total Calcium (Ca)	2009/09/10					<100	mg/kg	1.6	30	101	70 - 130
3402612	Total Iron (Fe)	2009/09/10					<100	mg/kg	7.4	30	87	70 - 130
3402612	Total Magnesium (Mg)	2009/09/10					<100	mg/kg	1.2	30	111	70 - 130
3402612	Total Manganese (Mn)	2009/09/10					<0.2	mg/kg	7.5	30	99	70 - 130
3402612	Total Molybdenum (Mo)	2009/09/10					<0.1	mg/kg	NC	35	83	70 - 130
3402612	Total Phosphorus (P)	2009/09/10					<10	mg/kg	2.1	30	93	70 - 130
3402612	Total Silver (Ag)	2009/09/10					<0.05	mg/kg	NC	35	86	70 - 130
3402612	Total Strontium (Sr)	2009/09/10					<0.1	mg/kg	9.2	35	100	70 - 130
3402612	Total Thallium (Tl)	2009/09/10					<0.05	mg/kg	NC	30	79	70 - 130
3402612	Total Titanium (Ti)	2009/09/10					<1	mg/kg	4.5	35	108	70 - 130
3402612	Total Bismuth (Bi)	2009/09/10					<0.1	mg/kg	NC	30		
3402612	Total Potassium (K)	2009/09/10					<100	mg/kg	5.1	35		
3402612	Total Sodium (Na)	2009/09/10					<100	mg/kg	NC	35		
3402612	Total Tin (Sn)	2009/09/10					<0.1	mg/kg	NC	35		
3402612	Total Zirconium (Zr)	2009/09/10					<0.5	mg/kg	NC	30		
3404758	Total Arsenic (As)	2009/09/09			98	75 - 125	<0.2	mg/kg	5.0	30	86	70 - 130
3404758	Total Beryllium (Be)	2009/09/09			104	75 - 125	<0.1	mg/kg	NC	30		
3404758	Total Cadmium (Cd)	2009/09/09			100	75 - 125	<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Chromium (Cr)	2009/09/09			97	75 - 125	<1	mg/kg	0.1	30	92	70 - 130
3404758	Total Cobalt (Co)	2009/09/09			99	75 - 125	<0.3	mg/kg	0.2	30	86	70 - 130
3404758	Total Copper (Cu)	2009/09/09			101	75 - 125	<0.5	mg/kg	1.4	30	86	70 - 130
3404758	Total Lead (Pb)	2009/09/09			97	75 - 125	<0.1	mg/kg	0.3	35	94	70 - 130
3404758	Total Mercury (Hg)	2009/09/09			104	75 - 125	<0.05	mg/kg	NC	35		
3404758	Total Nickel (Ni)	2009/09/09			94	75 - 125	<0.8	mg/kg	1.5	30	87	70 - 130
3404758	Total Selenium (Se)	2009/09/09			106	75 - 125	<0.5	mg/kg	NC	30		
3404758	Total Vanadium (V)	2009/09/09			121	75 - 125	<2	mg/kg	1.7	30	123	70 - 130
3404758	Total Zinc (Zn)	2009/09/09			102	75 - 125	<1	mg/kg	1.9	30	88	70 - 130
3404758	Total Aluminum (Al)	2009/09/09					<100	mg/kg	8.6	35	105	70 - 130
3404758	Total Antimony (Sb)	2009/09/09					<0.1	mg/kg	NC	30	103	70 - 130

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3404758	Total Barium (Ba)	2009/09/09					<0.1	mg/kg	0.04	35	109	70 - 130
3404758	Total Calcium (Ca)	2009/09/09					<100	mg/kg	1.5	30	90	70 - 130
3404758	Total Iron (Fe)	2009/09/09					<100	mg/kg	3.3	30	93	70 - 130
3404758	Total Magnesium (Mg)	2009/09/09					<100	mg/kg	1.9	30	95	70 - 130
3404758	Total Manganese (Mn)	2009/09/09					<0.2	mg/kg	0.7	30	95	70 - 130
3404758	Total Molybdenum (Mo)	2009/09/09					<0.1	mg/kg	8.5	35	89	70 - 130
3404758	Total Phosphorus (P)	2009/09/09					<10	mg/kg	3.6	30	91	70 - 130
3404758	Total Silver (Ag)	2009/09/09					<0.05	mg/kg	NC	35	94	70 - 130
3404758	Total Strontium (Sr)	2009/09/09					<0.1	mg/kg	0.04	35	99	70 - 130
3404758	Total Thallium (Tl)	2009/09/09					<0.05	mg/kg	NC	30	79	70 - 130
3404758	Total Titanium (Ti)	2009/09/09					<1	mg/kg	0.2	35	113	70 - 130
3404758	Total Bismuth (Bi)	2009/09/09					<0.1	mg/kg	NC	30		
3404758	Total Potassium (K)	2009/09/09					<100	mg/kg	11.5	35		
3404758	Total Sodium (Na)	2009/09/09					<100	mg/kg	NC	35		
3404758	Total Tin (Sn)	2009/09/09					<0.1	mg/kg	NC	35		
3404758	Total Zirconium (Zr)	2009/09/09					<0.5	mg/kg	NC	30		
3404986	Extractable (Water) SULFOLANE (sur.)	2009/09/10			100	60 - 140	98	%				
3404986	Extractable (Water) Ethylene Glycol	2009/09/10			106	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Diethylene Glycol	2009/09/10			108	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Triethylene Glycol	2009/09/10			114	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Tetraethylene Glycol	2009/09/10			126	30 - 130	<10	mg/kg	NC	40		
3404986	Extractable (Water) Propylene Glycol	2009/09/10			97	30 - 130	<10	mg/kg	NC	40		
3405247	O-TERPHENYL (sur.)	2009/09/09			80	50 - 130	88	%				
3405247	F2 (C10-C16 Hydrocarbons)	2009/09/09	99	50 - 130	104	80 - 120	<10	mg/kg	NC	40		
3405247	F3 (C16-C34 Hydrocarbons)	2009/09/09	102	50 - 130	103	80 - 120	<10	mg/kg	NC	40		
3405247	F4 (C34-C50 Hydrocarbons)	2009/09/09	99	50 - 130	100	80 - 120	<10	mg/kg	NC	40		
3405247	Reached Baseline at C50	2009/09/09							NC	50		
3407604	Soluble (2:1) pH	2009/09/11			100	96 - 104			0	20		
3410083	O-TERPHENYL (sur.)	2009/09/11			88	50 - 130	92	%				
3410083	F2 (C10-C16 Hydrocarbons)	2009/09/11	109	50 - 130	99	80 - 120	<10	mg/kg	NC	40		
3410083	F3 (C16-C34 Hydrocarbons)	2009/09/11	116	50 - 130	102	80 - 120	<10	mg/kg	5.1	40		
3410083	F4 (C34-C50 Hydrocarbons)	2009/09/11	121	50 - 130	111	80 - 120	<10	mg/kg	NC	40		
3410083	Reached Baseline at C50	2009/09/11							NC	50		
3410846	Soluble (2:1) pH	2009/09/12			100	96 - 104			0.8	20		
3412134	Soluble (2:1) pH	2009/09/12			100	96 - 104			0	20		
3437023	F4SG (Heavy Hydrocarbons-SilicaGel)	2009/09/22			109	N/A	<100	mg/kg	7.8	30		

Maxxam Job #: A947822
Report Date: 2009/12/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3627985	Total Lead (Pb)	2009/12/15	95	75 - 125	99	75 - 125	<0.1	mg/kg	1.6	35	92	70 - 130
3628096	Soluble (2:1) pH	2009/12/15			99	96 - 104			1.0	20		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) - LCS outside acceptance criteria (10% of analytes failure allowed)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80795 A-947822

CHAIN OF CUSTODY

Page: 1 of 8

Invoice To: Require Report? Yes ☐ No ☐

Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: jsmith@franzenvironmental.com and jkeenliside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1743-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PCB	VOC	PAH	WATERS: ☐ VOCs	☐ BTEX F1	☐ BTEX F1-F2	☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved	Filtered ☐ Not Filtered	REGULATED METALS (CCME / AT1)[1]	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	3-09-1-1	S	09/08/29	X								X	X															3
2	3-09-2-1	S			X																							2
3	3-09-2-2	S		X																								2
4	3-09-3-1	S																									X	2
5	3-09-3-2	S		X																								1
6	3-09-4H1	S																									X	3
7	3-09-4H2	S		X	X																							3
8	3-09-4H-3	S		X							X	X	X															3
9	3-09-DUP-1	S		X								X	X															3
10	3-09-5H-1	S																									X	3
11	3-09-5H-2	S		X																								3
12	3-09-5H-3	S																									X	3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivienne Date/Time: Aug 31 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 1590	2.1 2.2 4.1 5.6 9.1 9.1	9.1 0.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80794 **CHAIN OF CUSTODY** Page: 2 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND ST. VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9941

Report To:
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: CAMBRIDGE BAY
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb- ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): Glycols	Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	3-09-6M-1	S	2009/08/29																					X	3
2	3-09-6M-2	S																						X	3
3	3-09-6M-3	S		X																					3
4	3-09-DUP-2	S		X																					3
5	1-09-1M-1	S		X																					5
6	1-09-2M-1	S		X			X				X	X	X										X		5
7	1-09-3M-1	S		X			X																		5
8																									
9																									1
10																									
11																									
12																									

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Date/Time: Aug 31, 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 1550	2.2 | 2 | 9 | 10 | 9 4 | 5 | 6 9 | 9 | 9	

CUSTODY SEAL YES / NO

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80792 **CHAIN OF CUSTODY** Page: 3 of 3

Invoice To: Require Report? Yes ☐ No ☐
Company Name: Franz environmental
Contact Name: 308-1080 mainland
Address: Vancouver
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
jsmith@franzenvironmental.com and jkennlisides@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 248-001
Project Name: Cambridge Bay
Location:
Sampler's Initials: VDC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☑ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):
_____
_____
_____

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOC	PCB	PAH	WATERS: BTEX F1 ☐ VOCs	BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb[1] ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Filtered ☐ Not Preserved ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	Ammonia ☐ TKN ☐ COD	TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	1-09-4H-1	S	2009/08/30	X			X																2	2
2	1-09-5H-1	S		X			X				X												2	2
3	1-09-6H-1	S		X	X		X				X	X	X										3	3
4	1-09-DUP-1	S		X																			2	2
5	4a-09-1H-1	S		X																			3	3
6	4a-09-2H-1	S		X																			3	3
7	4a-09-3H-1	S		X			X				X		X										3	3
8	4a-09-DUP-1	S		X																			3	3
9	4A-09-4-1	S		X			X				X		X										3	3
10	4A-09-5-1	S		X			X				X		X										3	3
11	4A-09-6-1	S		X																			3	3
12	4A-09-6-2	S		X																			3	3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vicaire Dolo **Date/Time:** Aug 31, 2009

Sign and Print: _____

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	09/09/12 MA 15:50	2/2/12 4/5/6 9/9/9	9/09/09
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL-FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80793 **CHAIN OF CUSTODY** Page: 4 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: 308-1080 MAINLAND ST VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: SAME AS invoice
jsmith@franzenvironmental.com and jkenlside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: MC

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☒ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[1]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved	Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	4A-09-7-1	S	2009/08/30	X																		3
2	4A-09-8-1	S	2009/08/30	X																		3
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivane Doiron **Date/Time:** Aug 31, 2009

Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 02/09/09 15:50	2.2 2 4.5 6 9.9 9	9.10.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80791 **CHAIN OF CUSTODY** Page: 5 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: JAMES SMITH
Address: 308-1080 MAINLAND, VANCOUVER
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
JSmith@franzenvironmental.com and jkenlside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb- ☐ F	REGULATED METALS (CCME / AT1)[3] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	5-09TP3-3	S	2009/08/30																			X	3
2	5-09TP3-4	S		[redacted]			[redacted]				[redacted]	[redacted]										X	3
3	5-09TP4-1	S																				X	3
4	5-09TP4-2	S																				X	3
5	5-09TP4[redacted]-3	S		X			X				X	X											3
6	6-09TP1-2	S																				X	3
7	6-09TP1-1	S																				X	3
8	6-09TP1-3	S		X			X				X	X											3
9	[redacted] BG-1	S					X																1
10	BG2	S					X																1
11	BG-3	S					X																1
12																							

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vanessa Date Date/Time: Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2, 2, 2, 1 / 4, 5, 6 / 9, 9, 9, 1	9, 10, 9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80785 **CHAIN OF CUSTODY** Page: 6 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name:
Address: James Smith - Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To: James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1 _____
☑ CCME _____
☐ OTHER _____

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required: _____
☑ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	PAH	VOC	WATERS (footnotes defined on back): ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	S-09-TP1-1	S	2009/08/30	X			X				X	X											3
2	S-09-TP1-2	S																				X	3
3	S-09-TP1-3	S																				X	3
4	S-09-TP2-1	S		X			X				X	X											3
5	S-09-TP2-2	S																				X	3
6	S-09-TP2-3	S																				X	3
7	S-09-TP3-1	S		X			X				X	X											3
8	S-09-TP3-2	S																				X	3
9																							
10																							
11																							
12																							

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vanessa Stolz **Date/Time:** Aug 31/2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 / 4.5.6. / 9.9.9.	9.1 ω.9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80786 **CHAIN OF CUSTODY** Page: 1 of 8

Invoice To: Require Report? Yes ☐ No ☐
Company Name: FRANZ ENVIRONMENTAL
Contact Name: James Smith
Address: VANCOUVER
Prov: PC:
Contact #s: Ph: 604-632-9941 Fax:

Report To: James Smith
jsmith@franzenvironmental.com
jkenilside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-091
Project Name: Cambridge Bay
Location:
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	VOCs	BTEX	PAH	PCB	WATERS: BTEX F1 ☐ VOCs	BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb. ☐ F	REGULATED METALS (CCME / AT1)[1] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☐ Filtered ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP1	S	2009/08/29										X											5
2	2-09-TP1-2	S		X			X				X													3
3	2-09-TP2-1	S																					X	5
4	2-09-TP2-2	S		X			X				X	X	X									X		5
5	2-09-TP3-1	S		X			X				X	X	X											3
6	2-09-TP3-2	S																					X	3
7	2-09-TP4	S		X			X				X													3
8	2-09-TP5-1	S		X			X				X													3
9	2-09-TP6-1	S		X			X				X													3
10	2-09-TP7-1	S		X			X				X													3
11	2-09-TP8-1	S		X			X															X		3
12	2-09-TP9-1	S	↓	X			X					X	X											3

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivane Dote Date/Time: Aug 31/2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	02/09/09 MT 15:50	2,2,2 / 4,5,6 / 9,9,9	9,10,9
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80787 **CHAIN OF CUSTODY** Page: 8 of 8

Invoice To: Require Report? Yes [X] No [ ]
Company Name: Fraser environmental
Contact Name:
Address: Vancouver
Prov: PC:
Contact #s: Ph: Fax:

Report To:
James Smith
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1348-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
[ ] AT1
[X] CCME
[ ] OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
[ ] **RUSH** (Please ensure you contact the lab to reserve)
Date Required:
[X] REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter / Flashpoint / pH (1:1)	TCLP / BTEX / Metals	VOCs	WATERS: BTEX F1 / VOCs	BTEX F1-F2 / BTEX F1-F4	Routine Water Package / Turb / F	Total / Preserved / Not Preserved — REGULATED METALS (CCME / AT1)[2]	Dissolved / Preserved / Filtered / Not Preserved / Not Filtered	Mercury / Total / Dissolved	Ammonia / TKN / COD	TOC / DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	2-09-TP10-1	S	2009/08/29	X			X				X											3
2	GR2	S	2009/08/29	X			X				X									{ if not enough jars just perform BTEX/metals }		3
3	2-09-TPDUP-1	S	2009/08/29	X			X				X											2
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Vivienne Dicto Date/Time: Aug 31, 2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

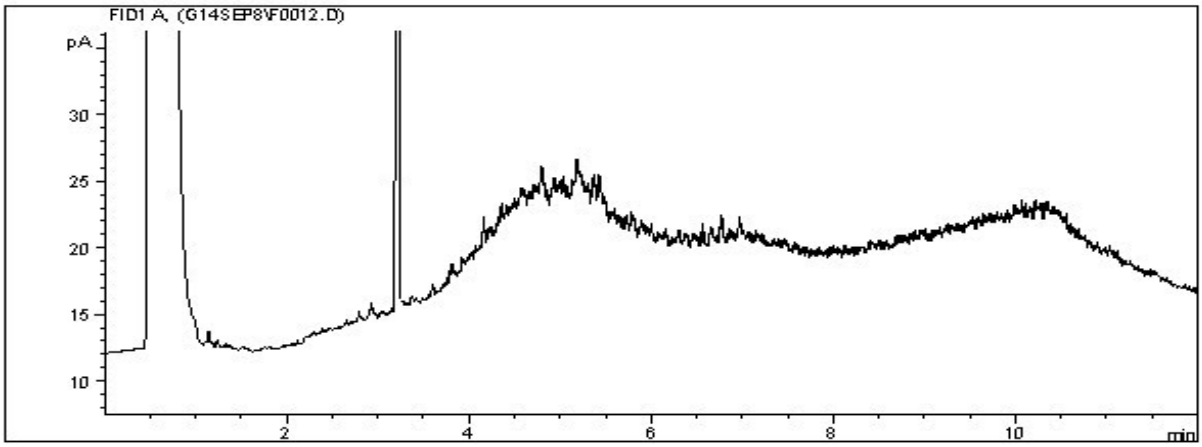
# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	MT 15:50 02/09/09	2.2.2 4.5.6. 9.9.9.	9/10/09
	CUSTODY SEAL YES / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

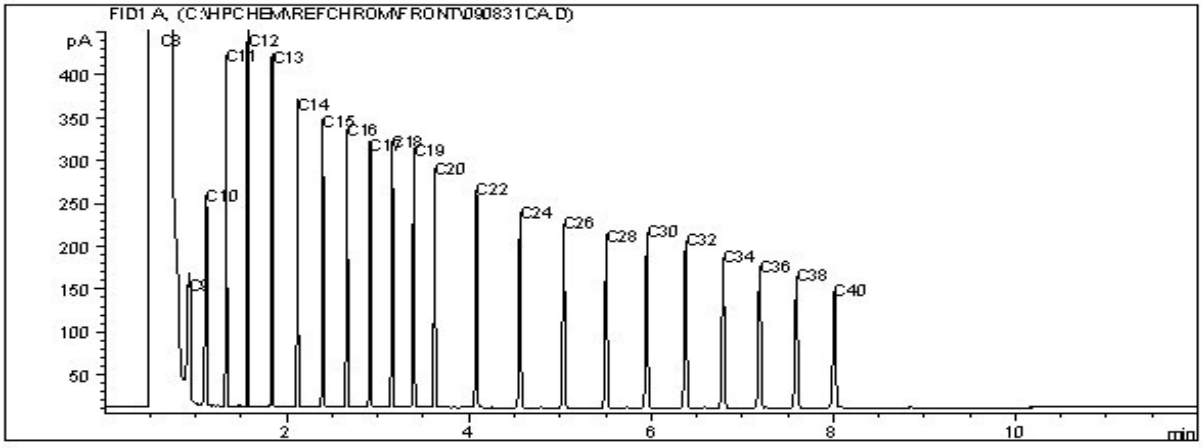
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56933

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-1-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

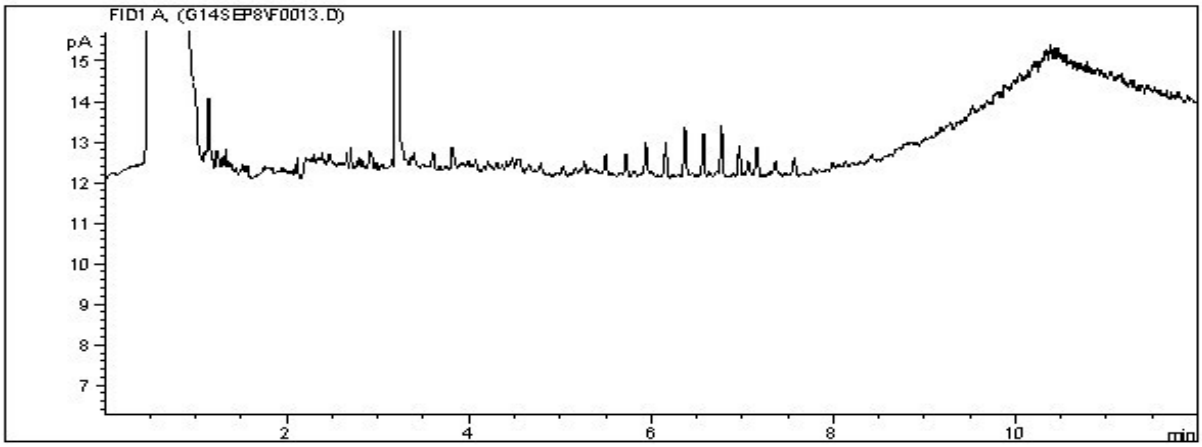
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

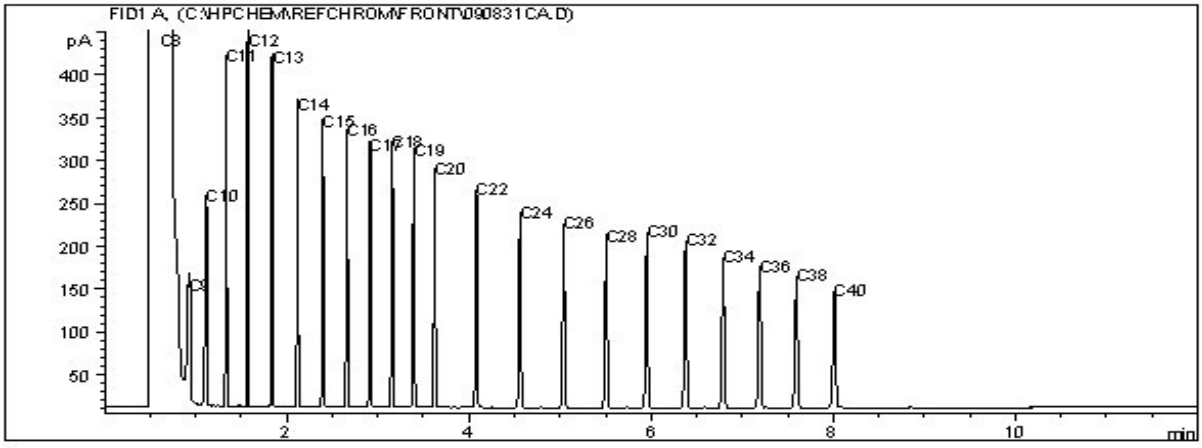
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56935

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-2-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

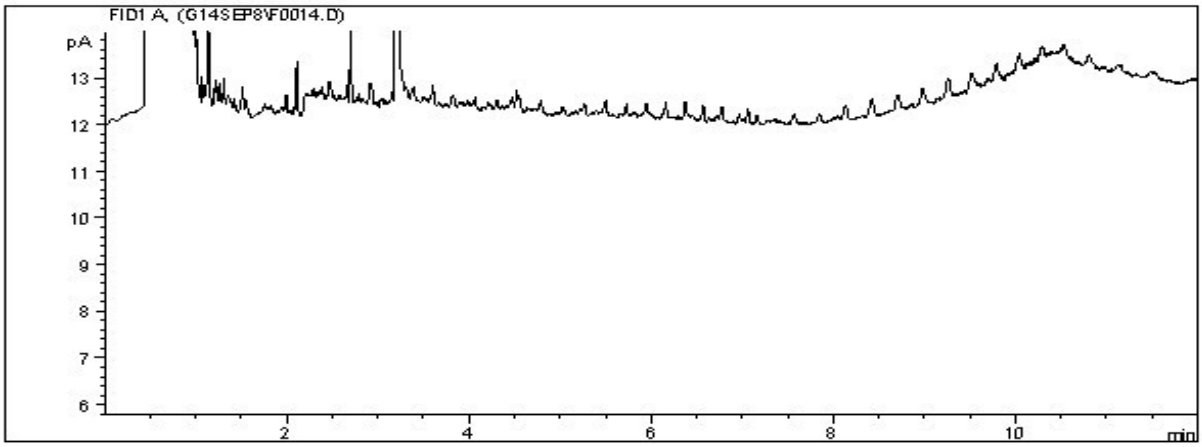
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

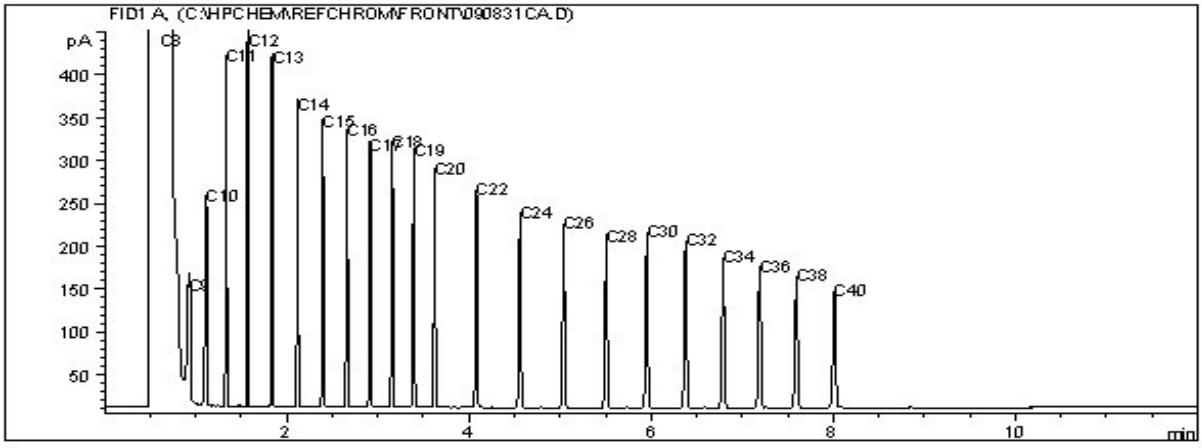
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56937

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-3-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

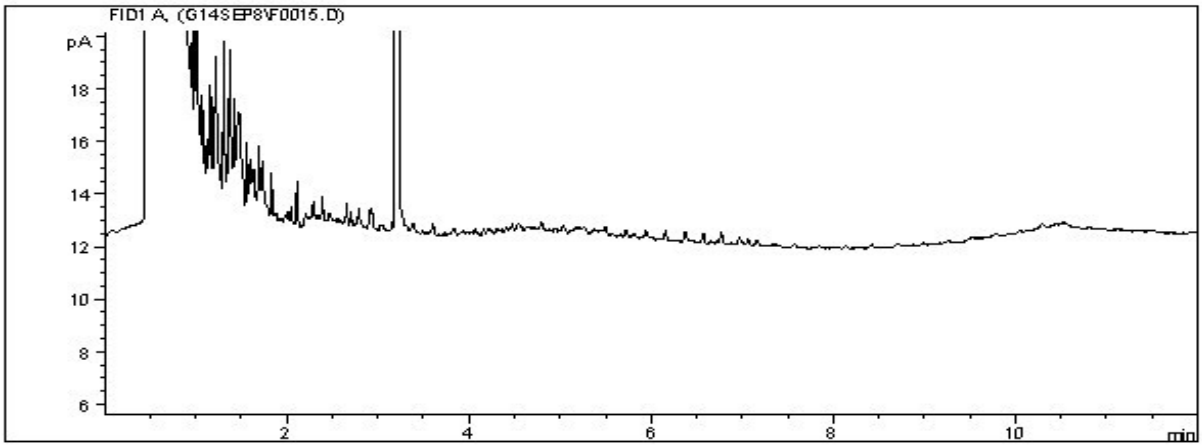
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

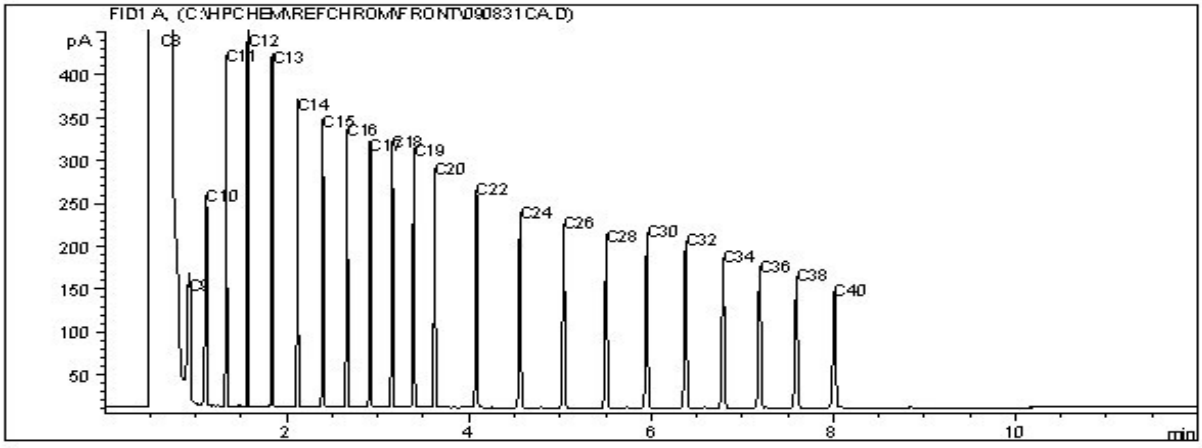
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56939

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-4M-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

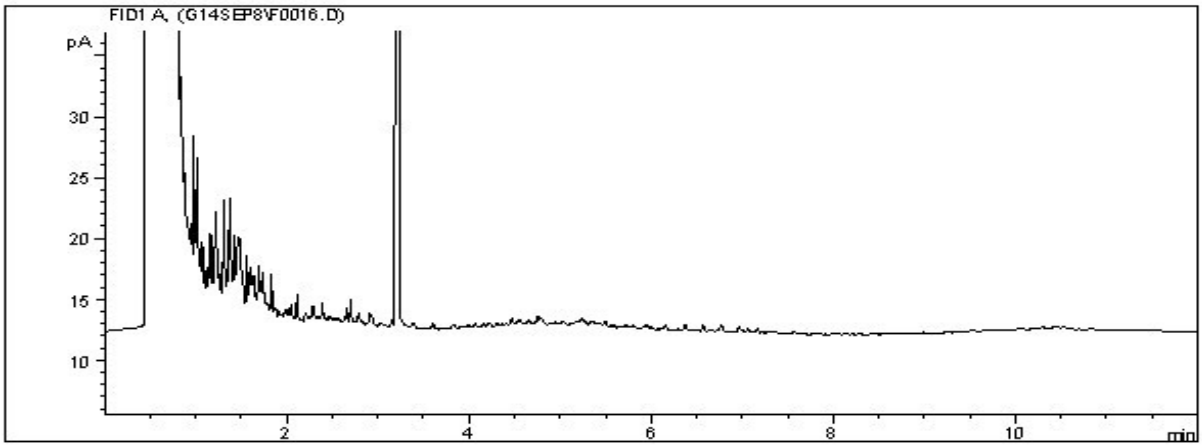
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

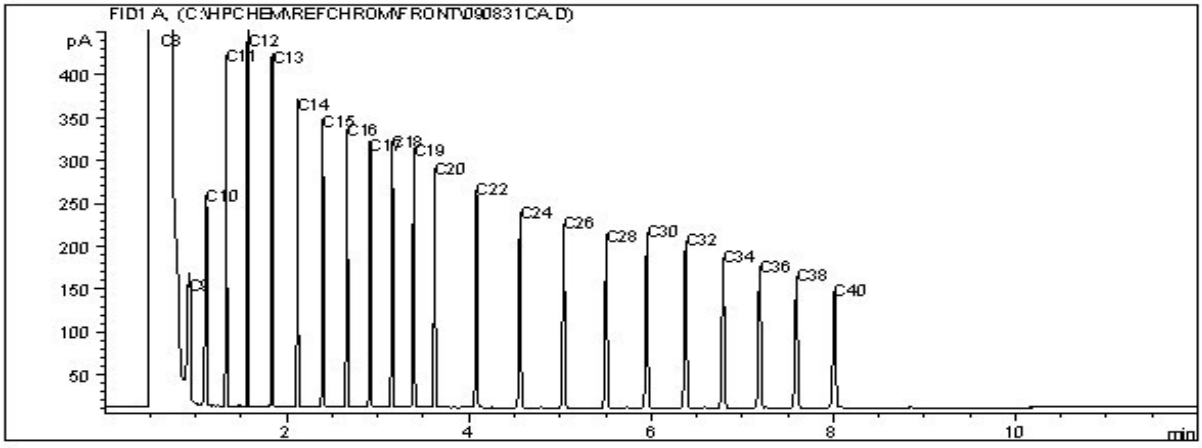
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56940

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-4M-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

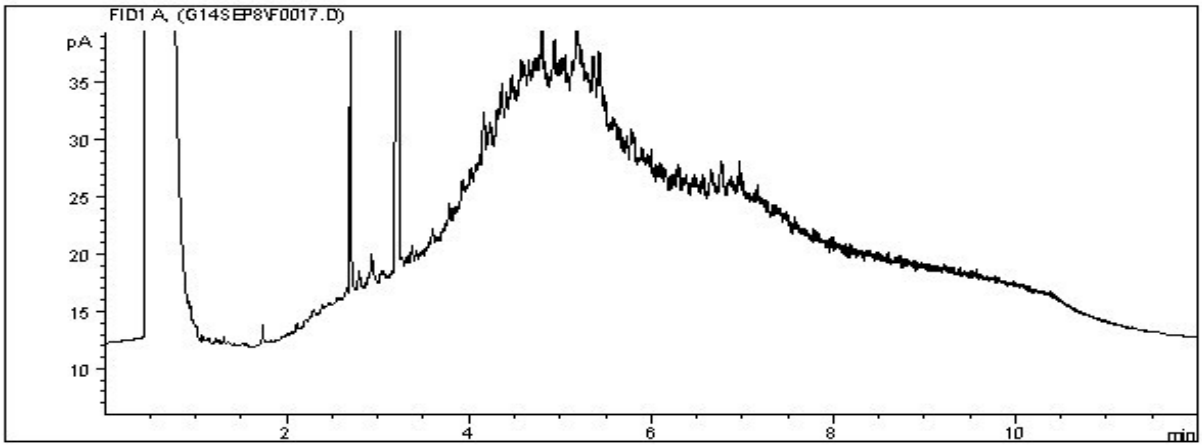
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

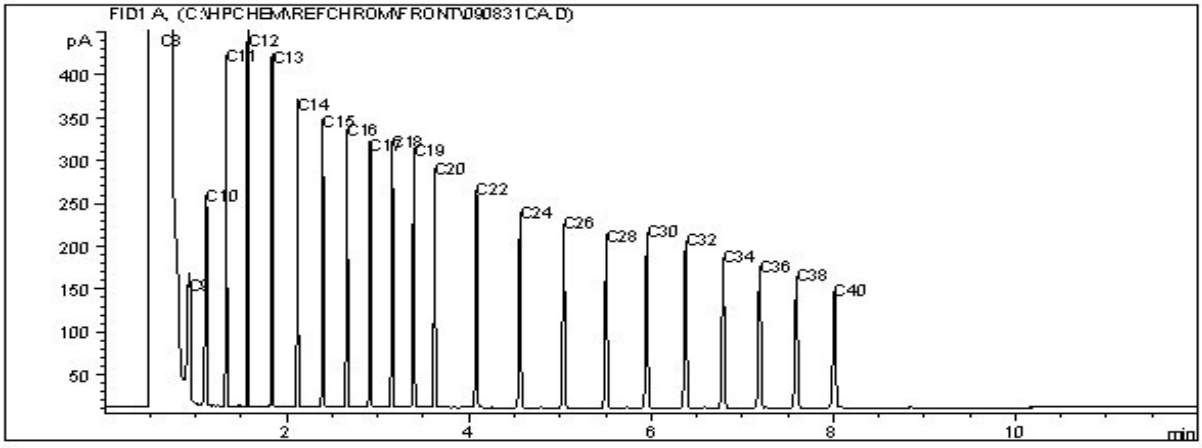
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56941

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

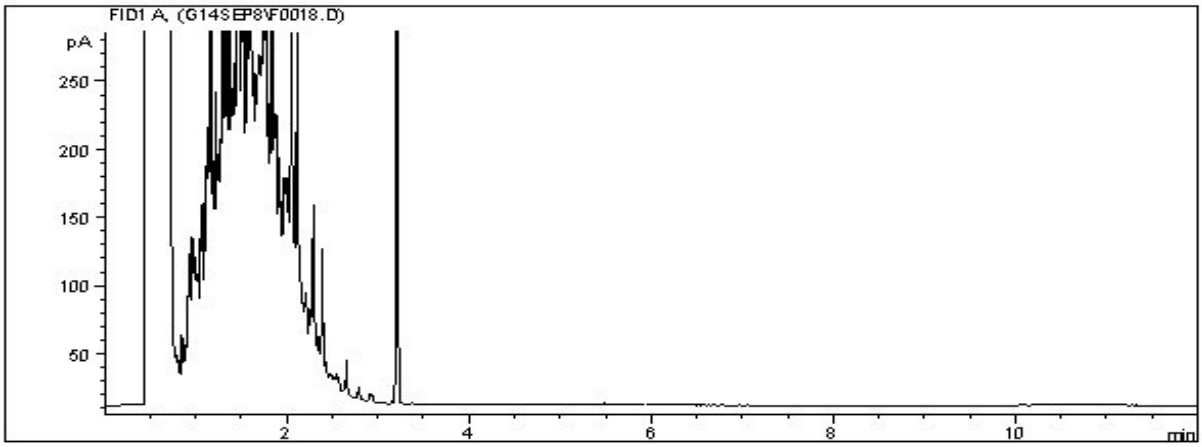
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

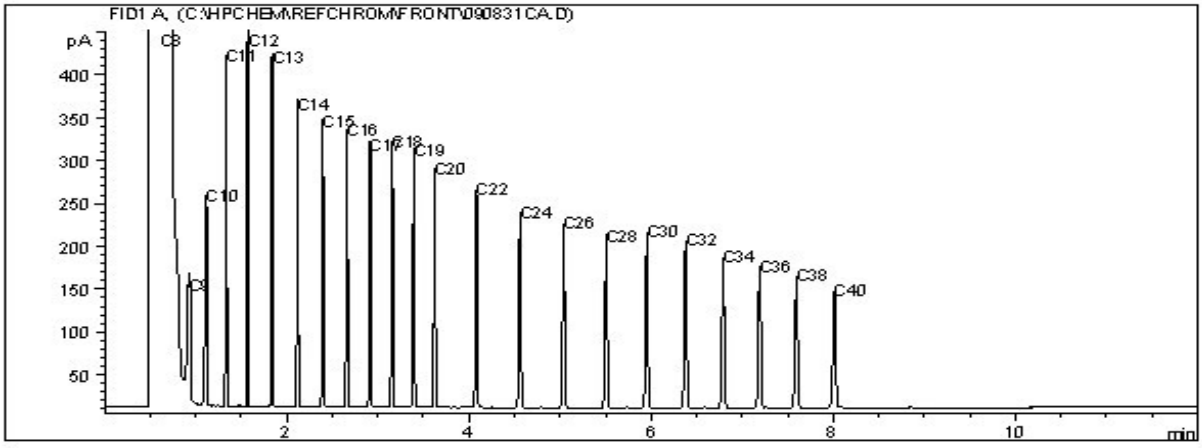
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56943

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-5M-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

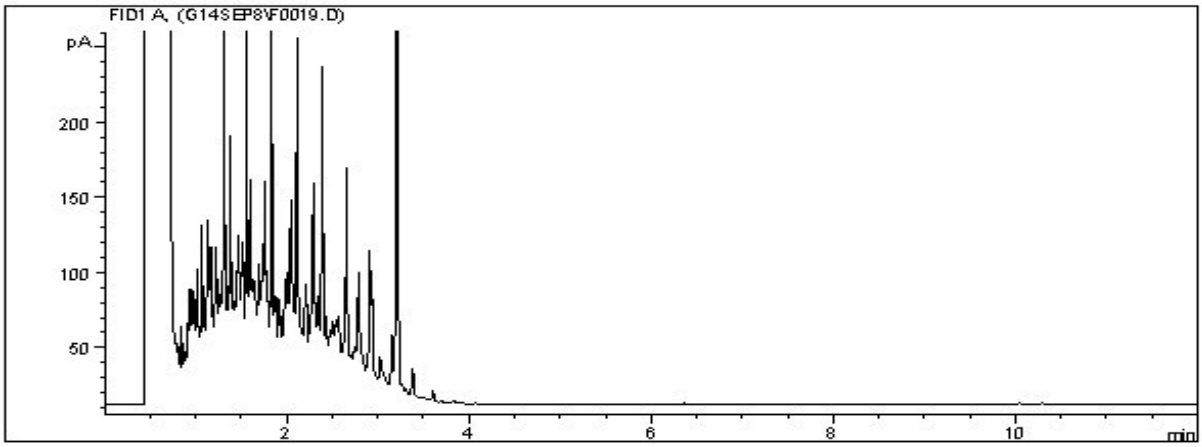
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

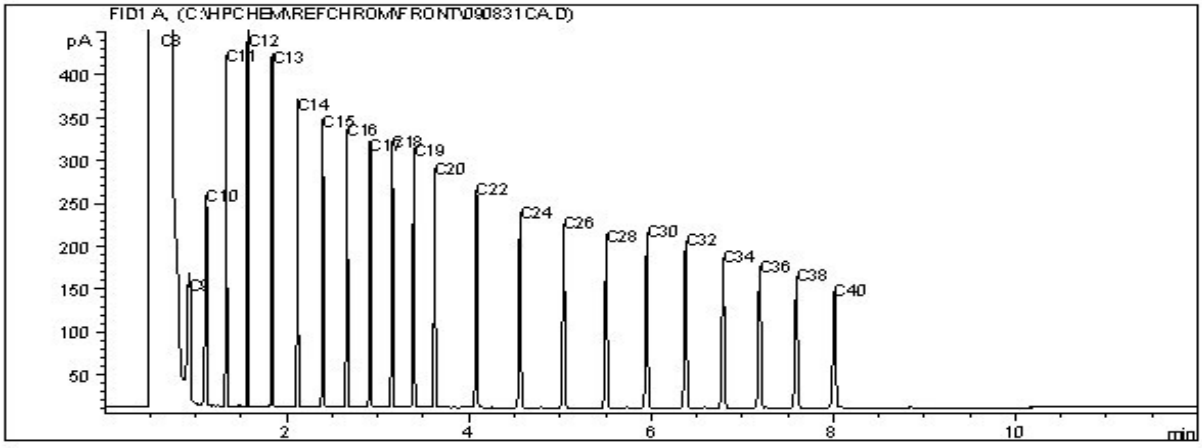
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56947

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-6M-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

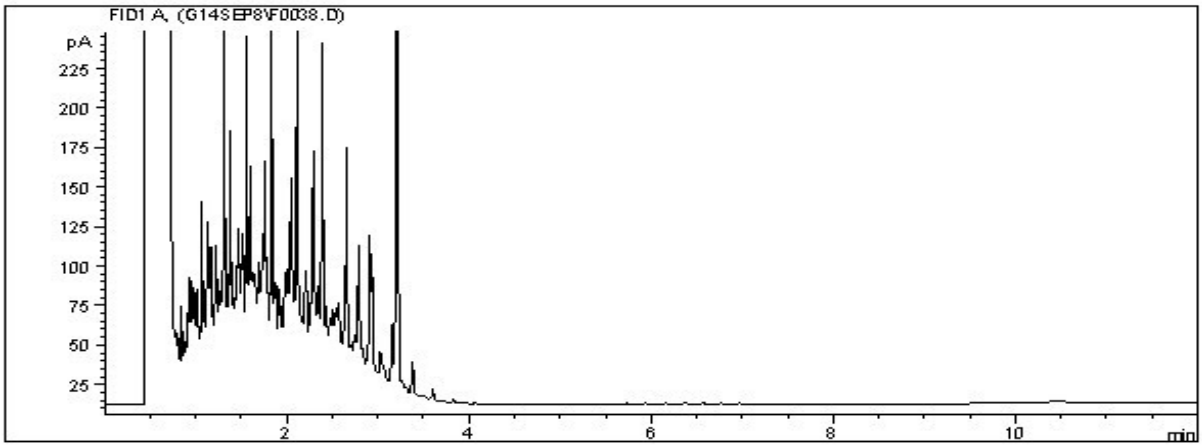
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

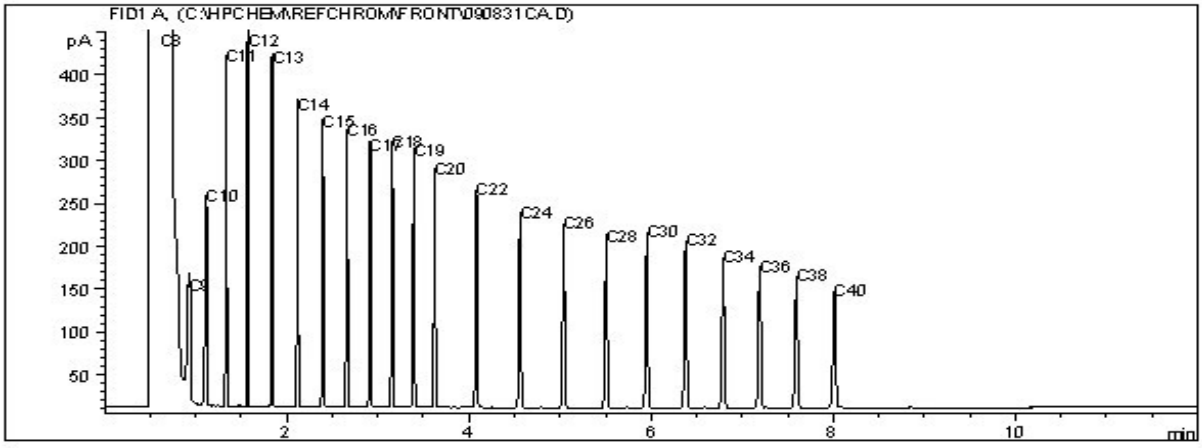
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56948

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 3-09-DUP-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

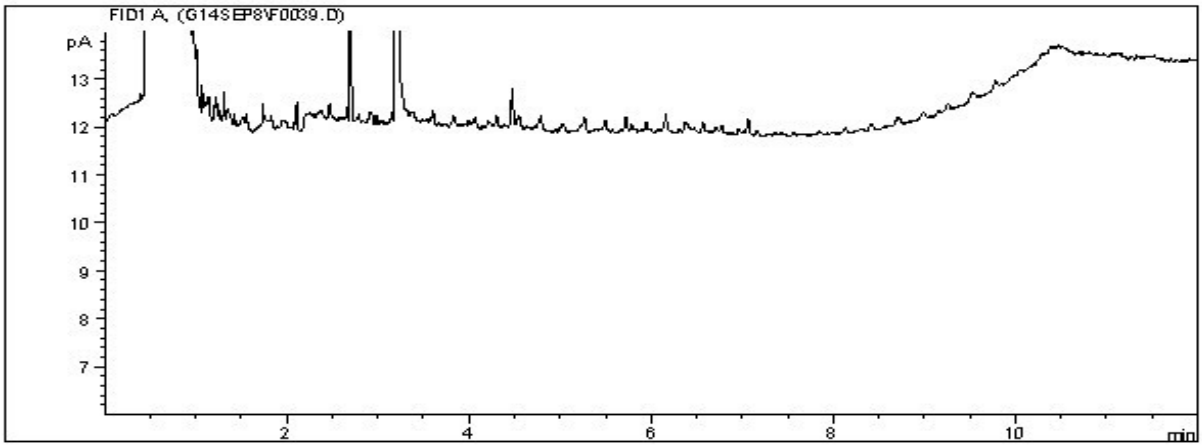
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

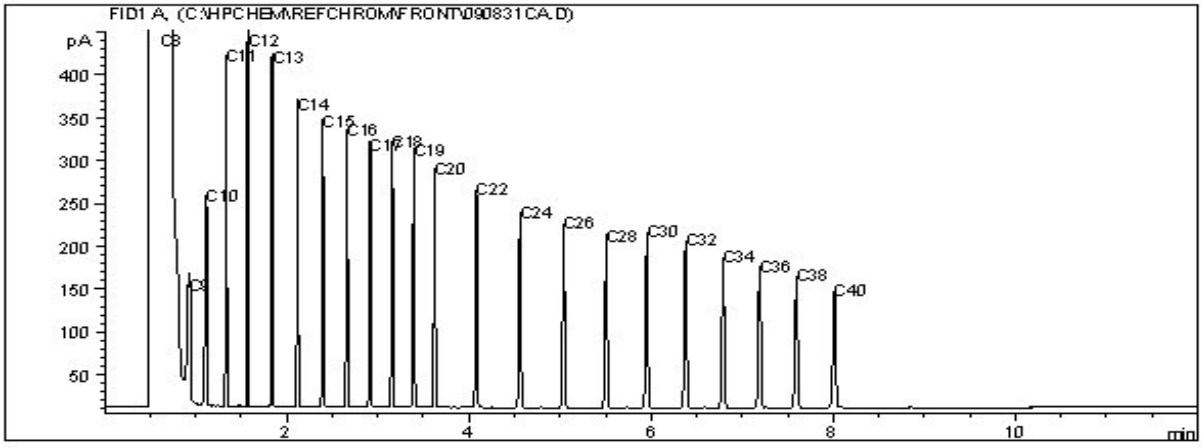
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56949

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-1M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

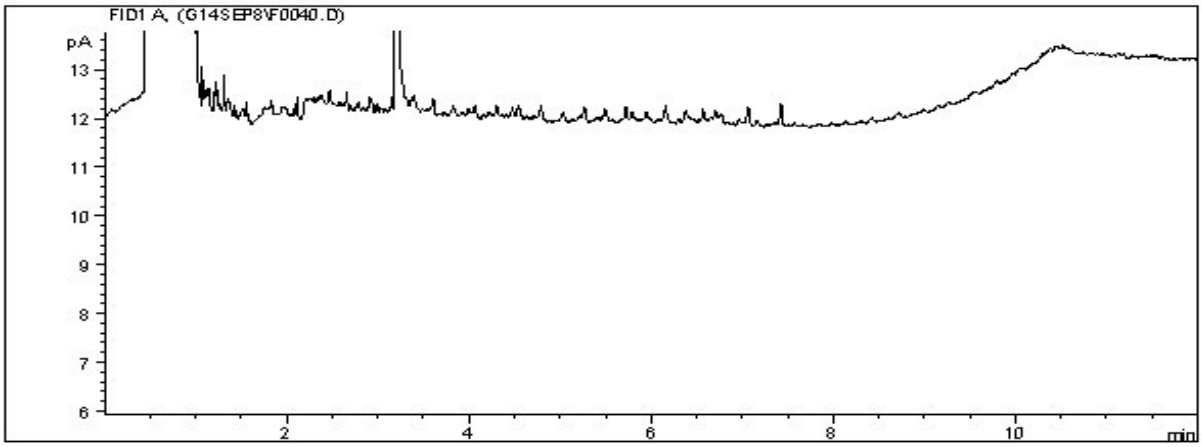
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

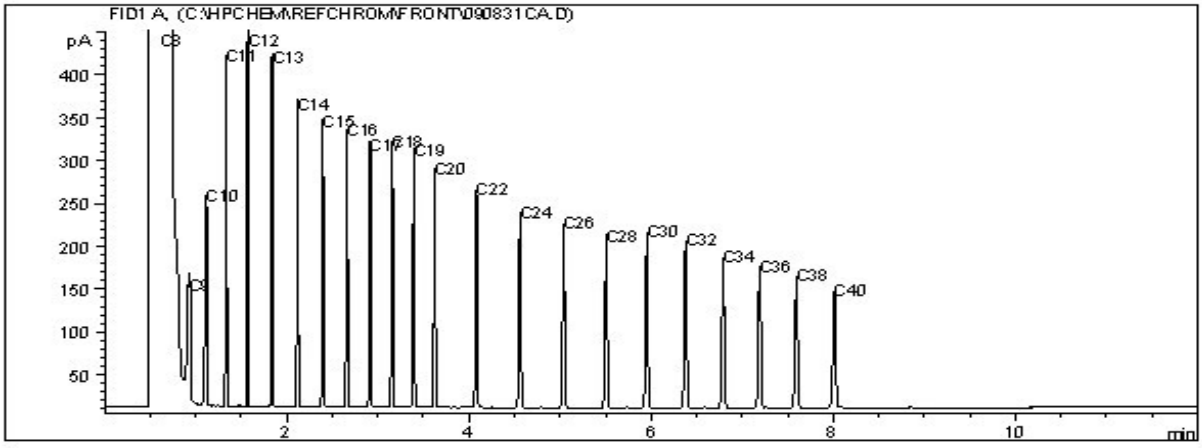
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56950

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-2M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

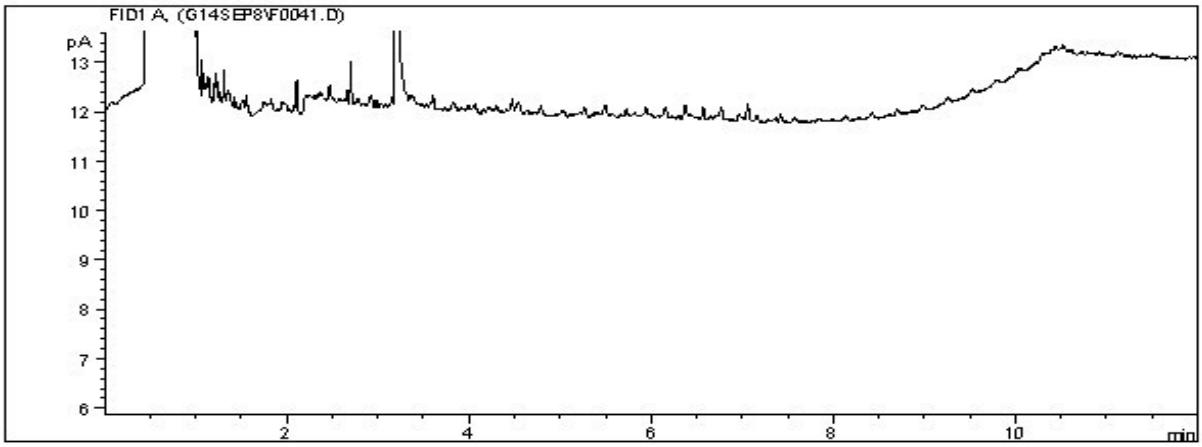
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

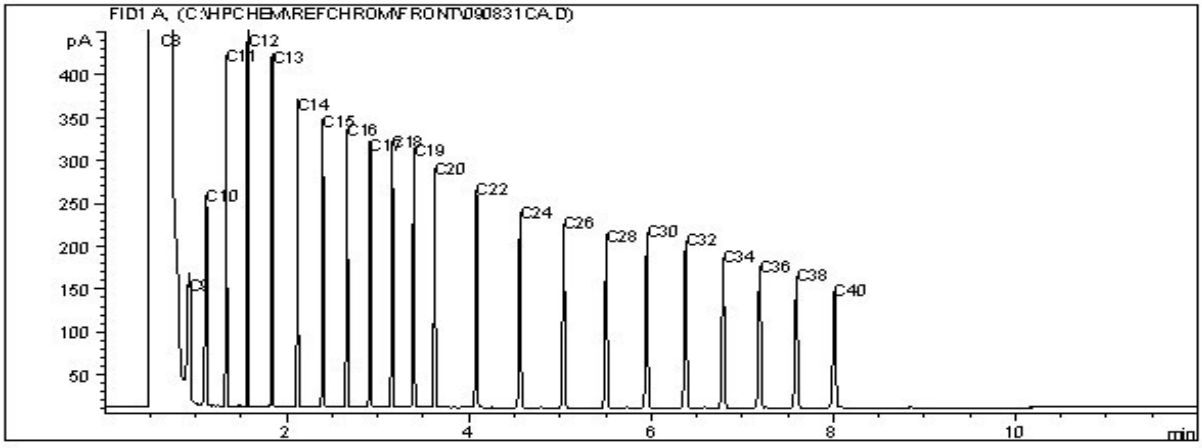
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56951

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-3M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

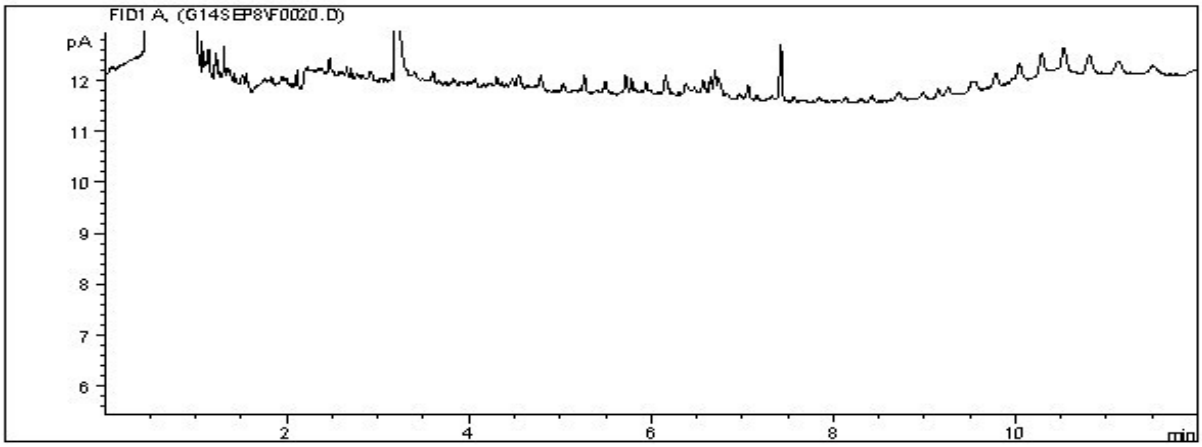
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

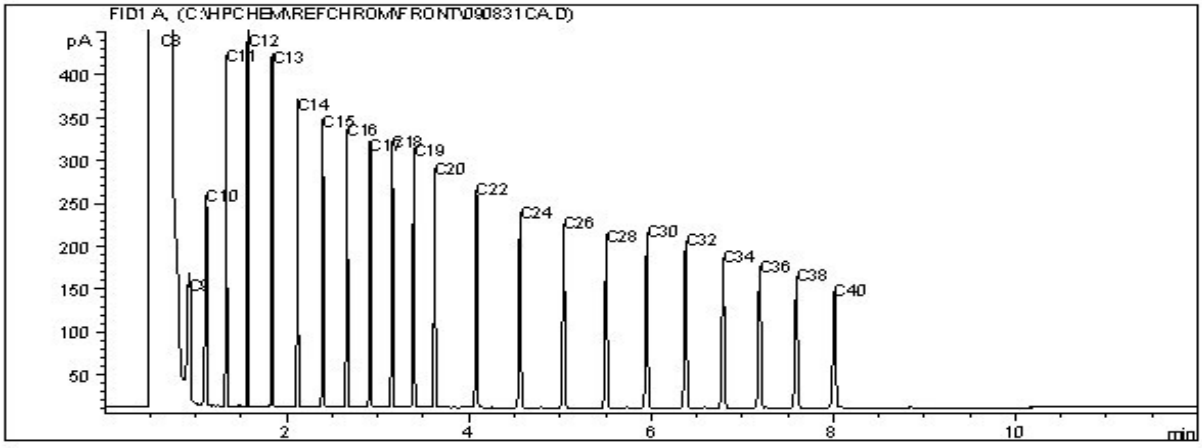
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56978

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-4M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

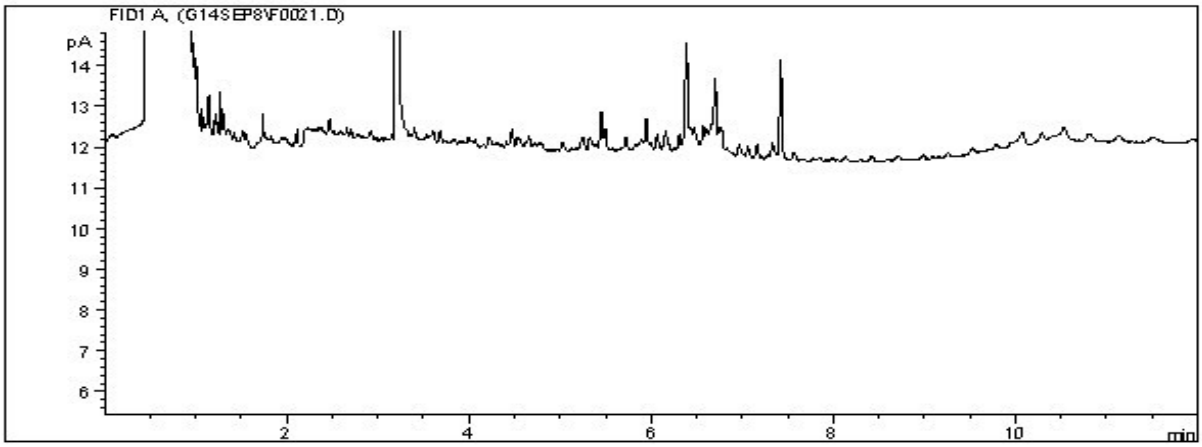
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

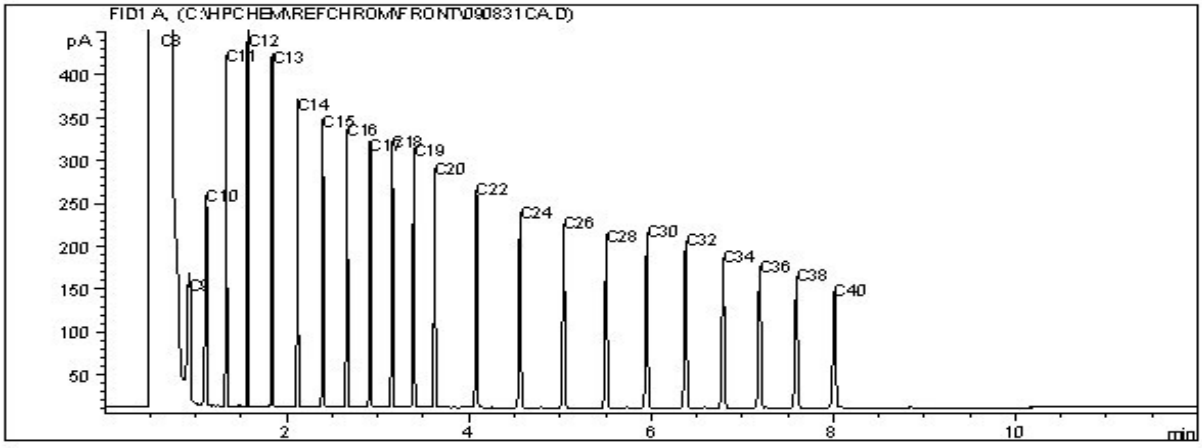
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56979

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-5M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

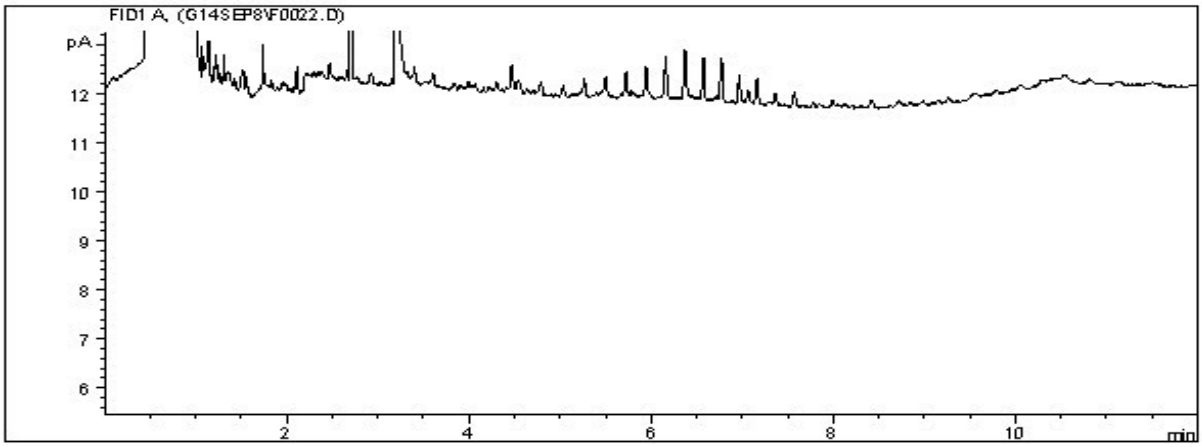
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

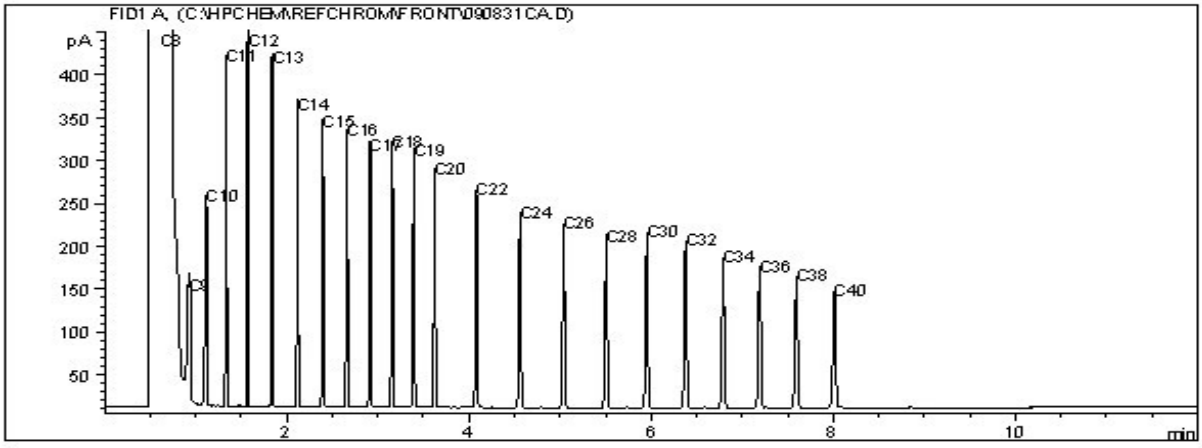
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56980

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-6M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

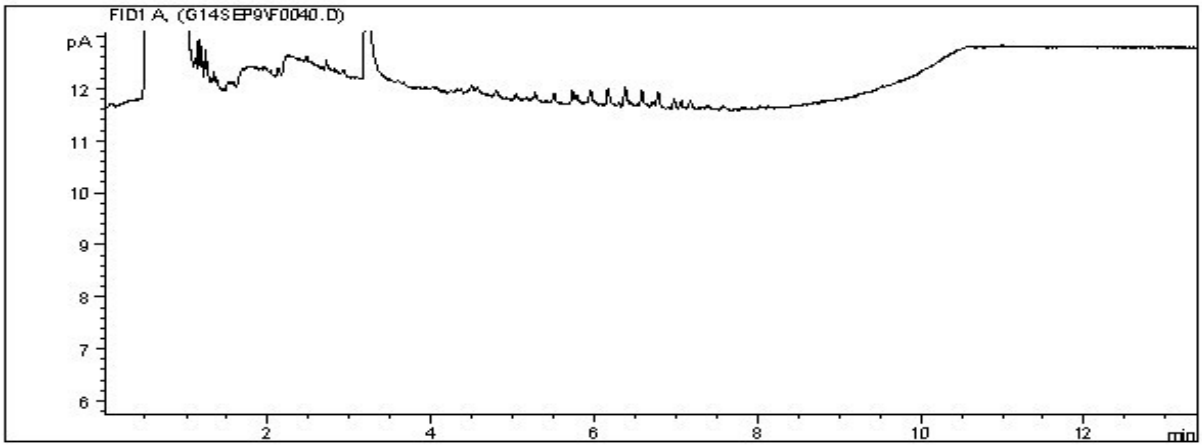
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

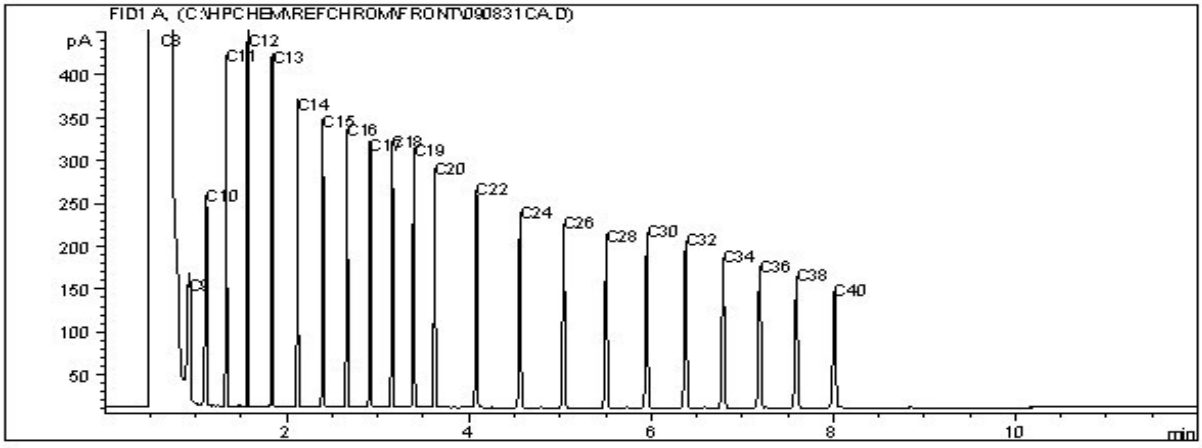
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56981

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

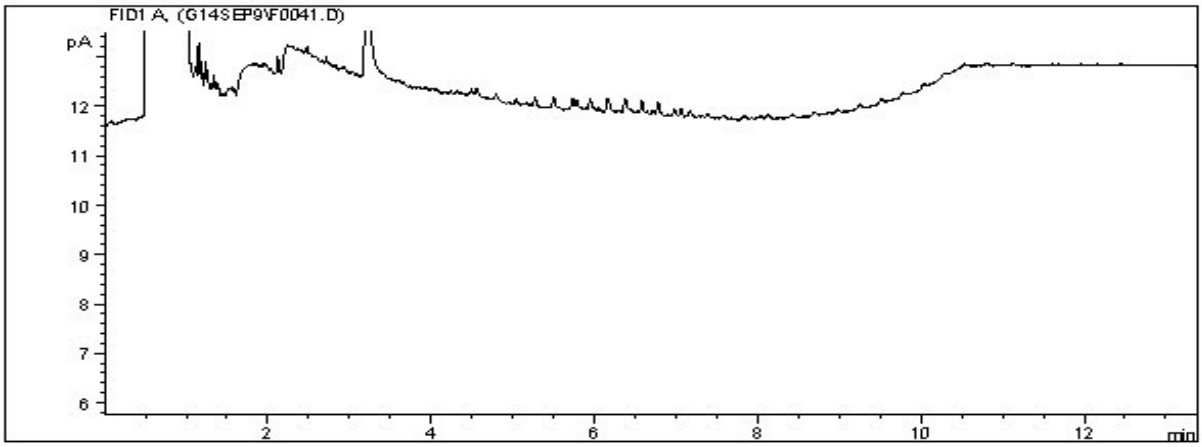
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

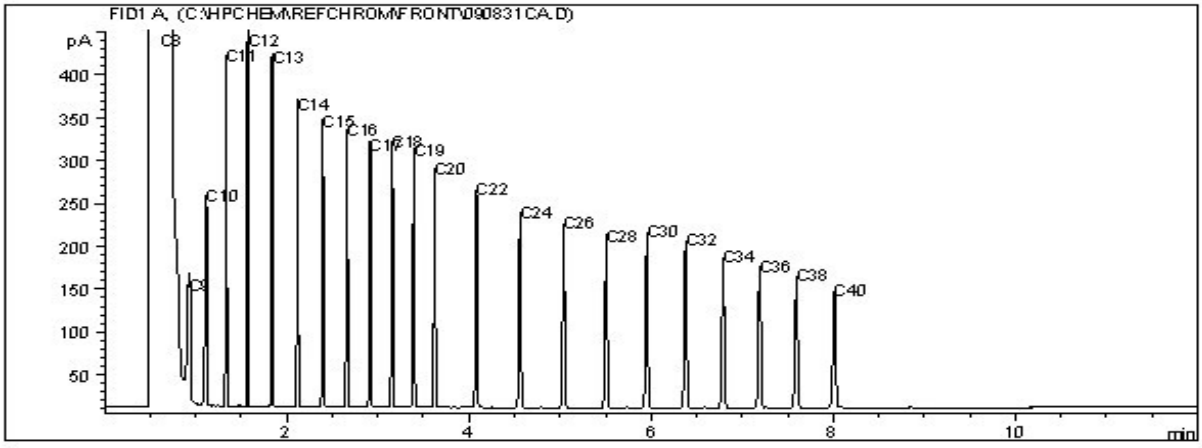
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56981

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 1-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

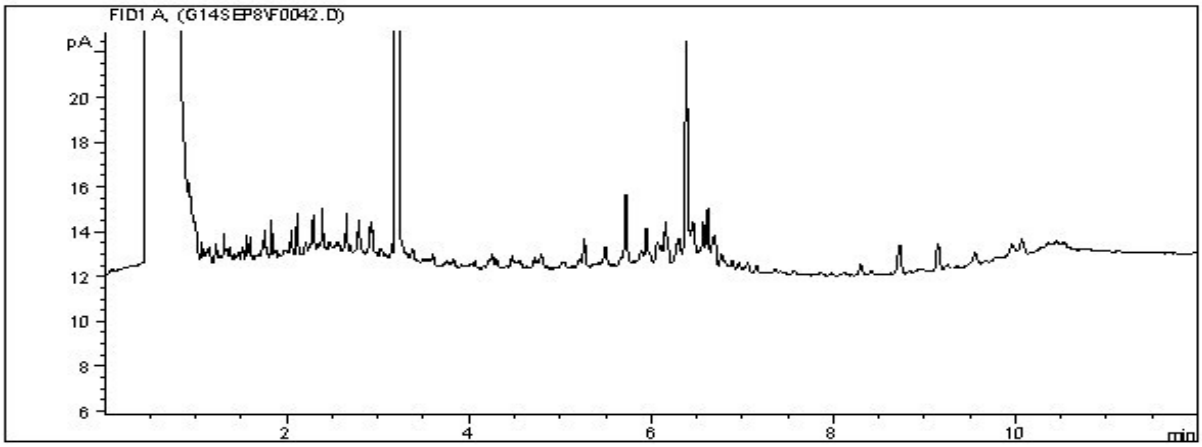
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

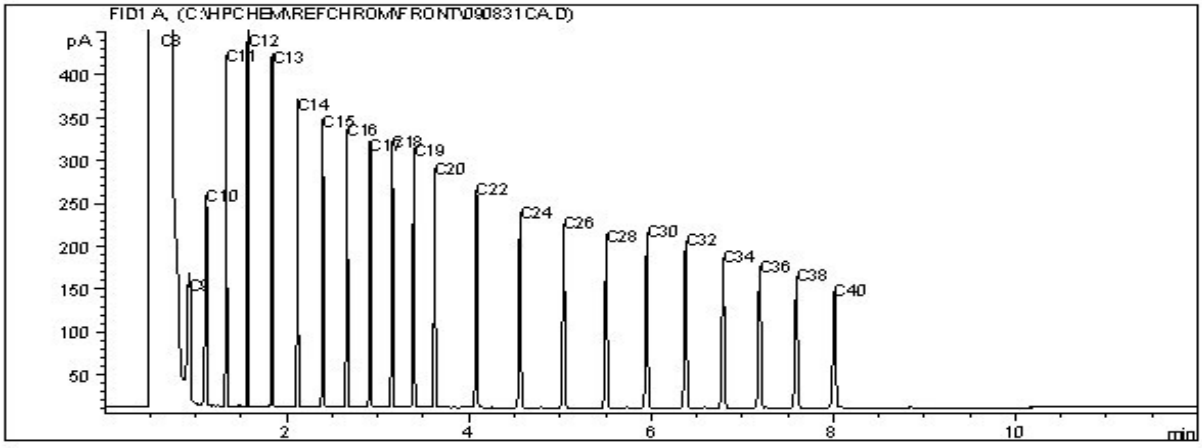
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56982

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-1M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

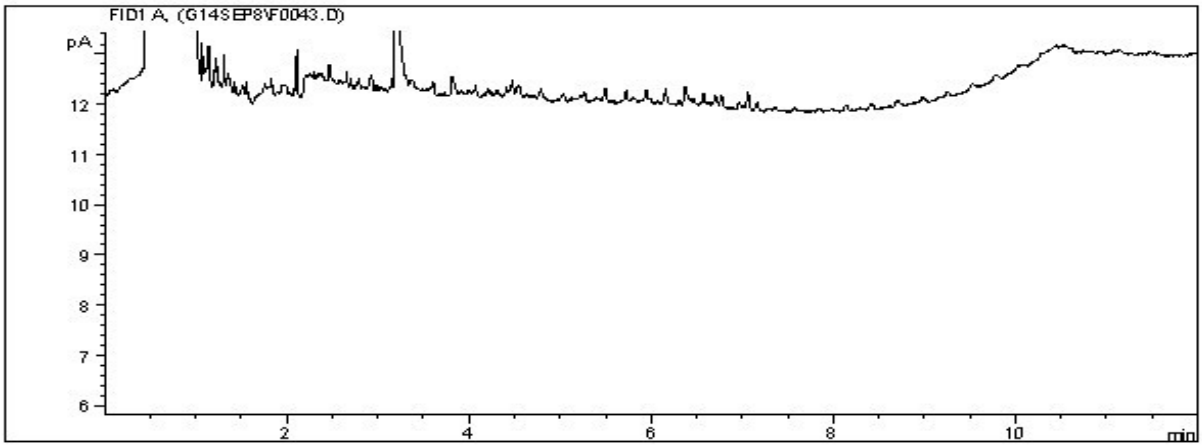
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

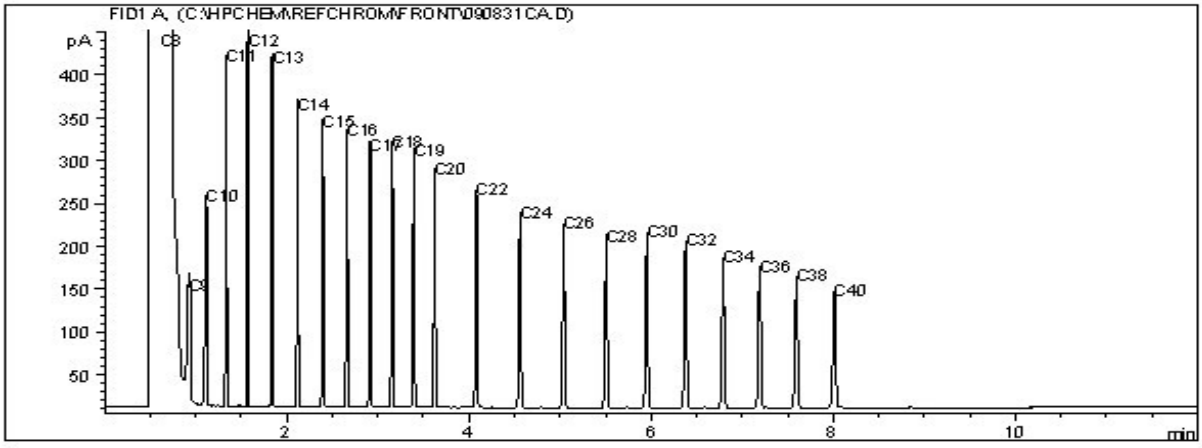
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56983

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-2M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

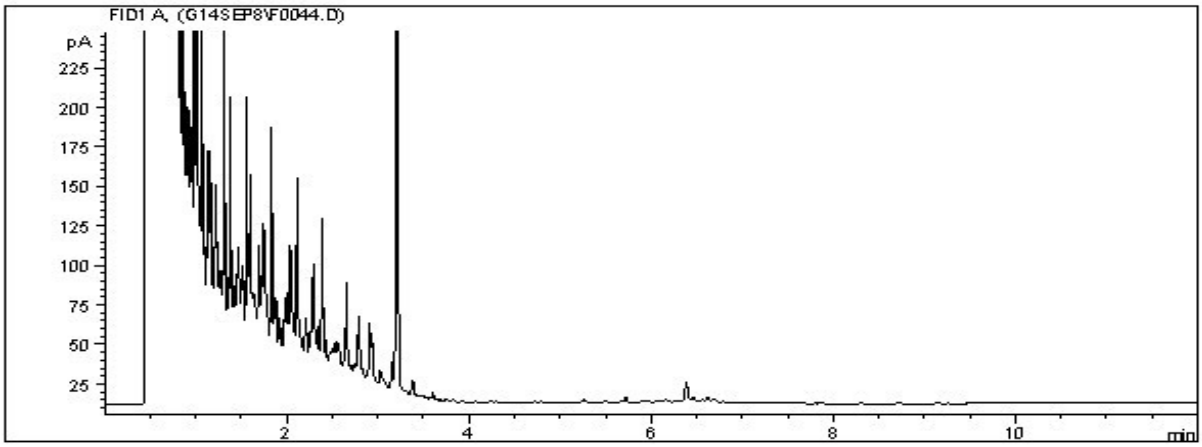
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

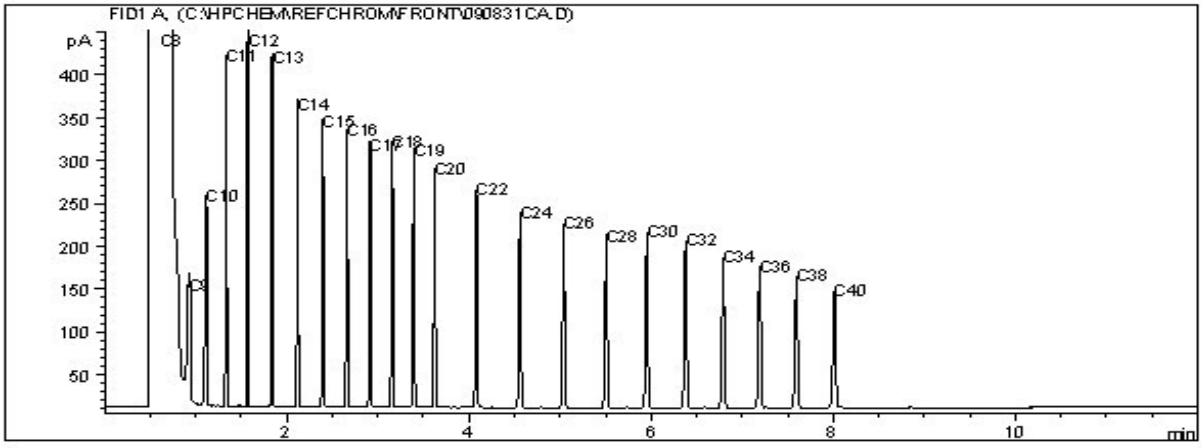
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56984

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-3M-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

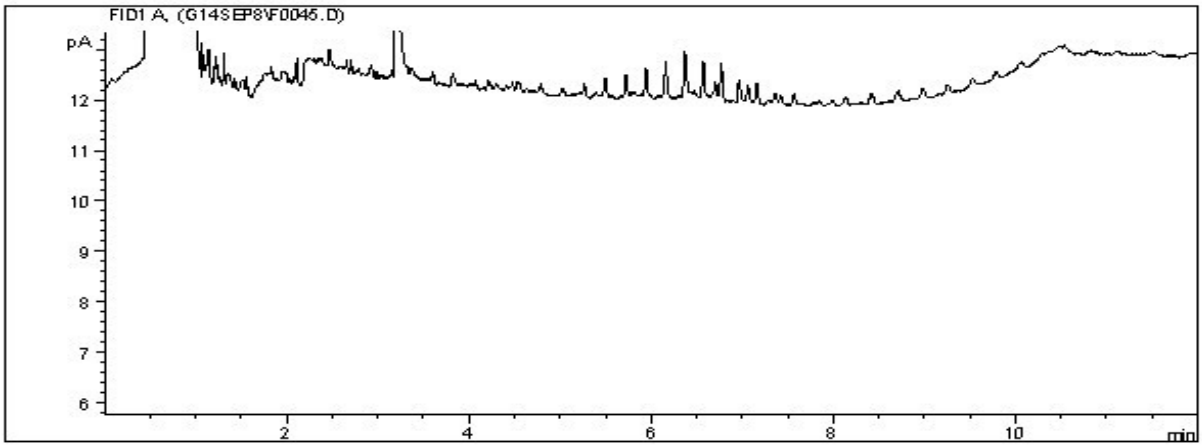
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

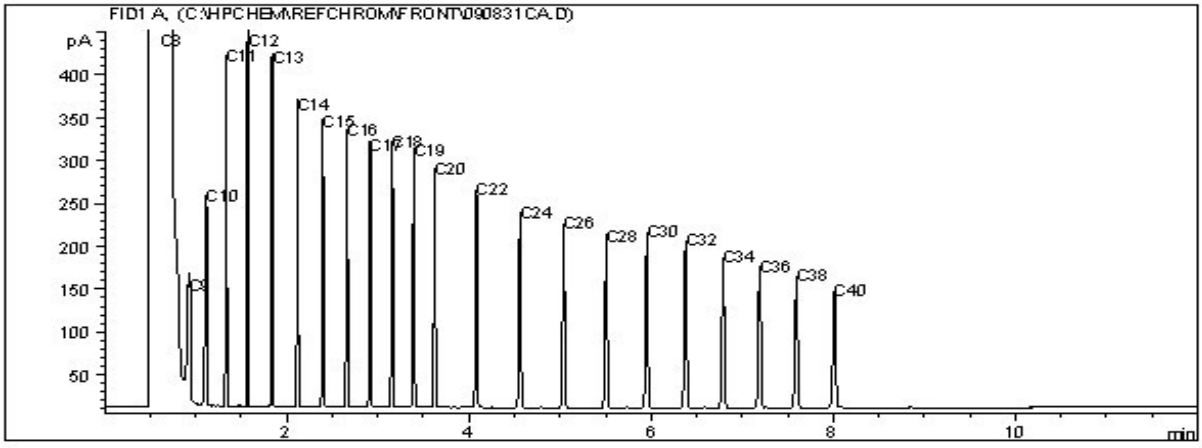
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56985

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-DUP-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

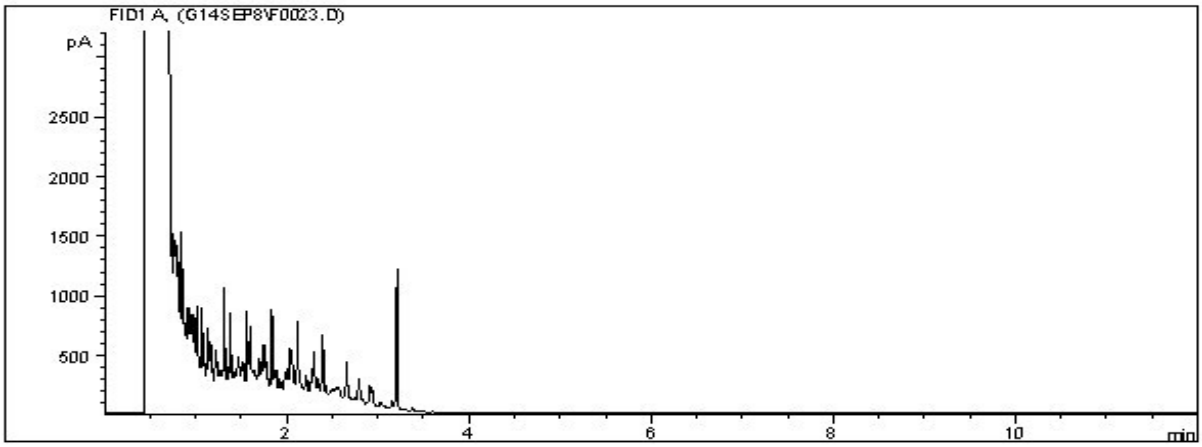
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

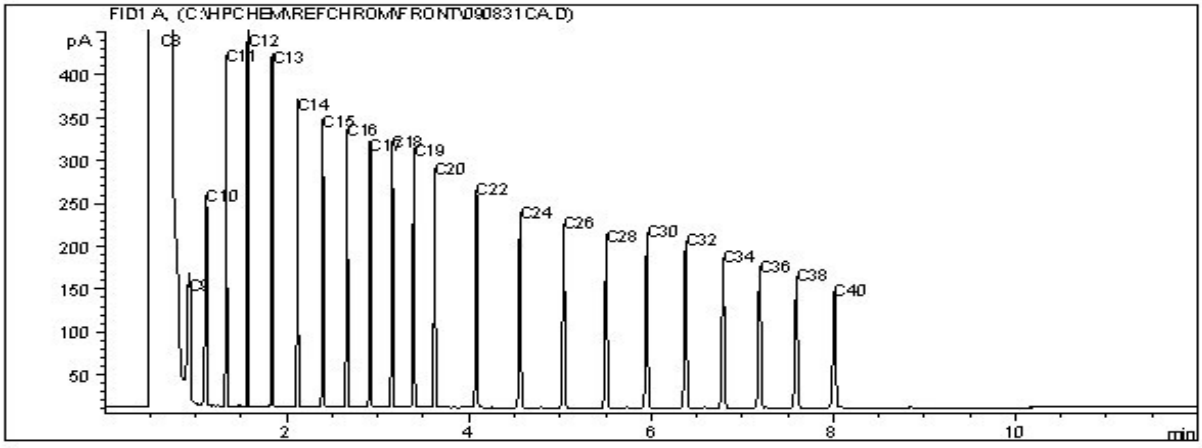
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56986

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-4-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

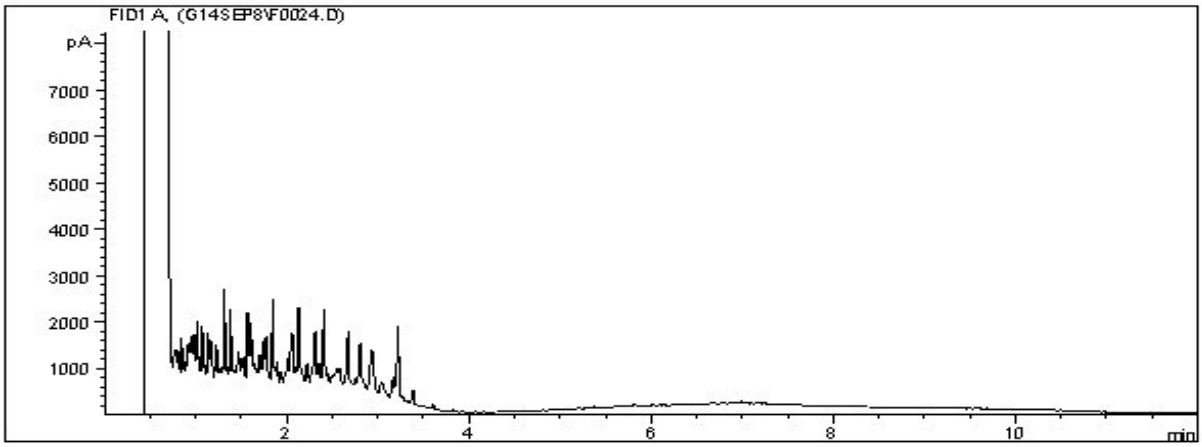
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

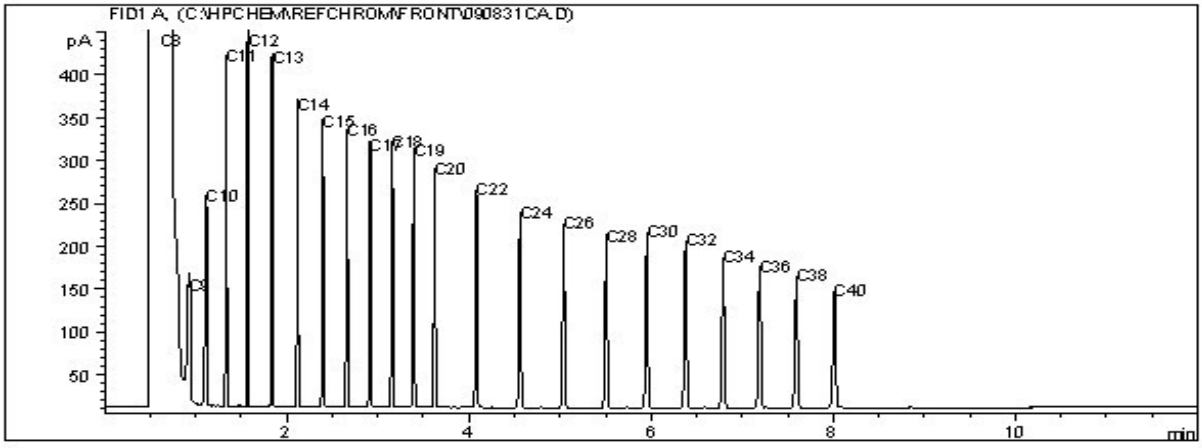
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56987

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-5-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

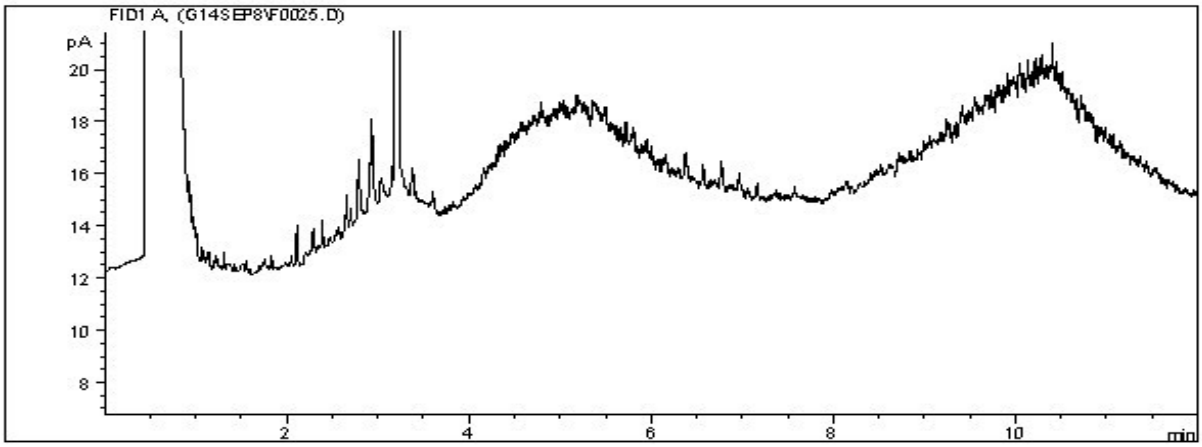
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

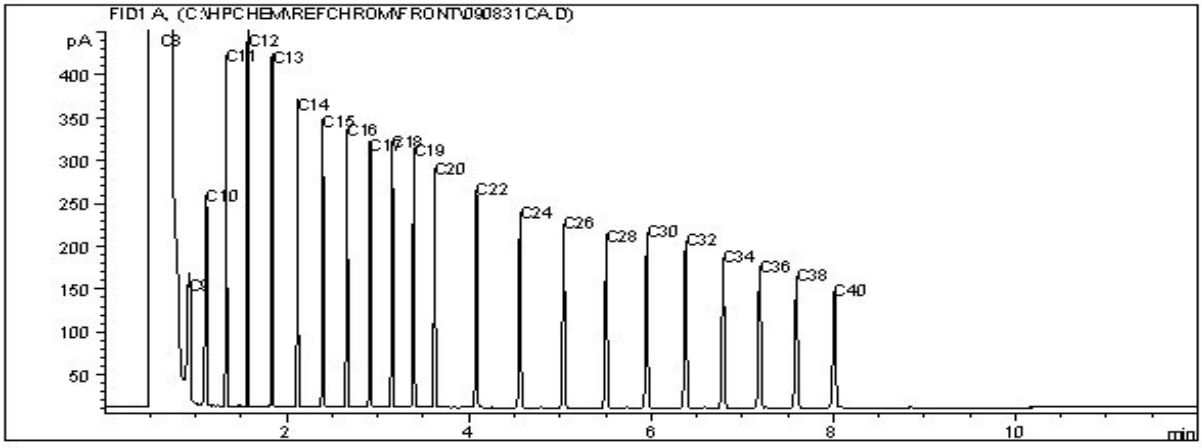
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56988

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-6-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

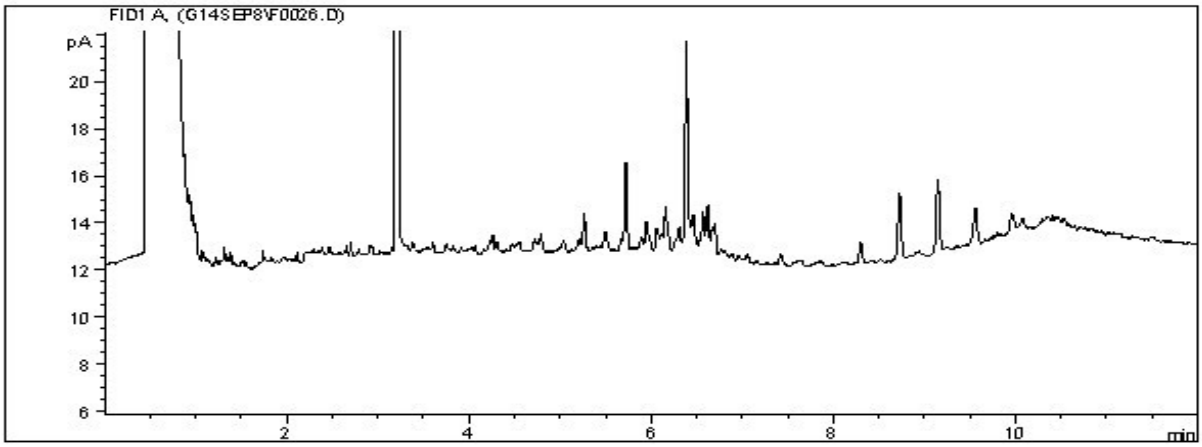
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

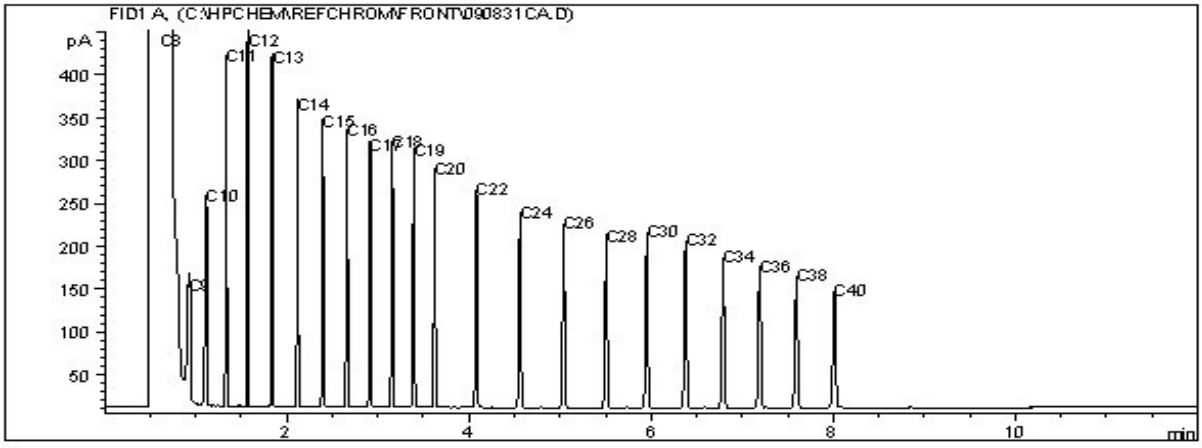
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q56989

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-6-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

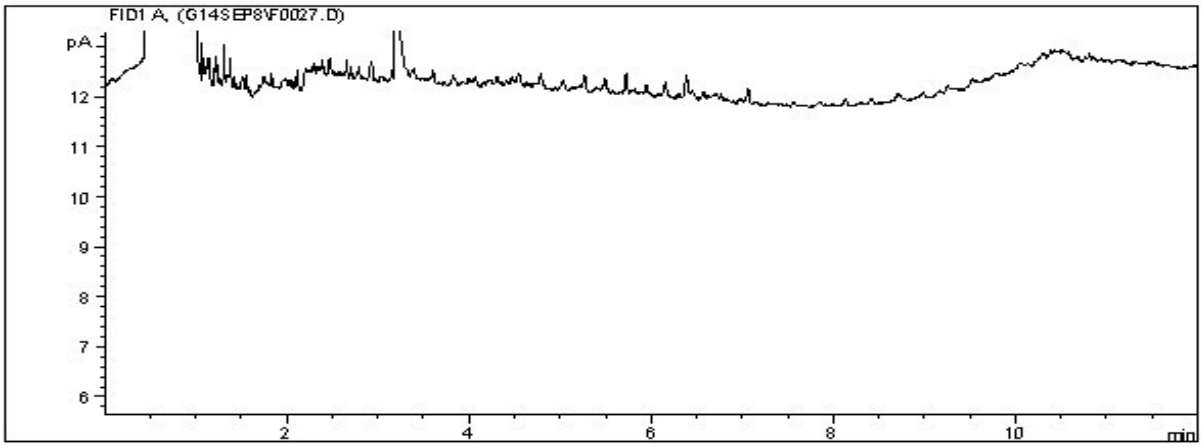
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

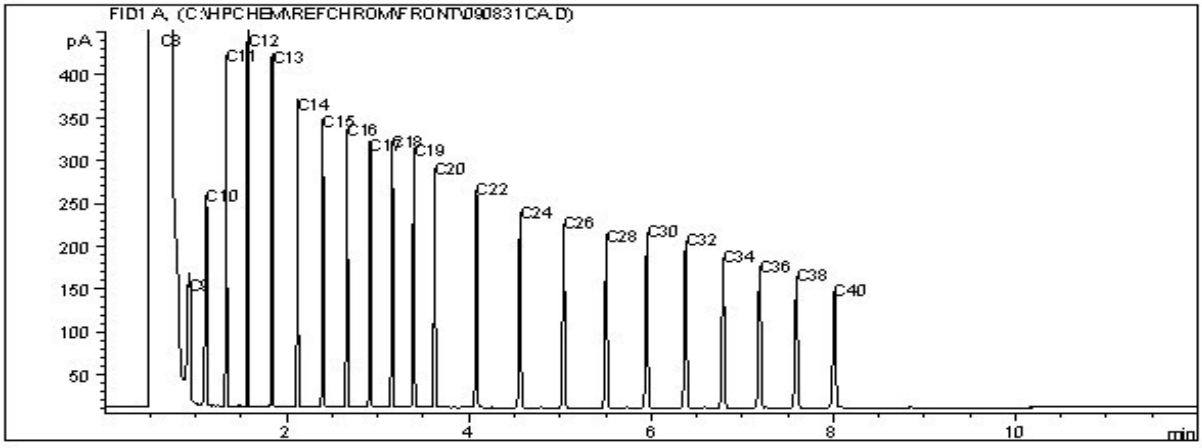
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57022

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-7-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

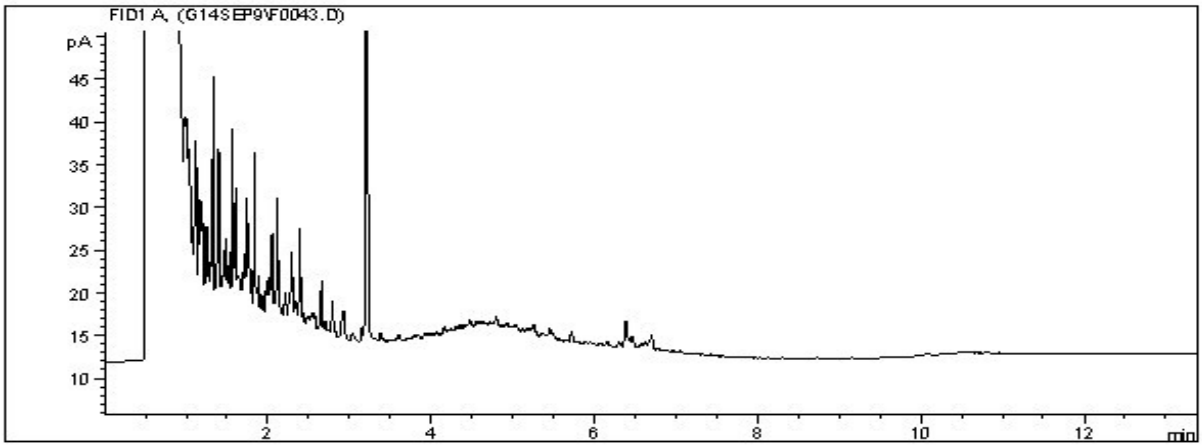
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

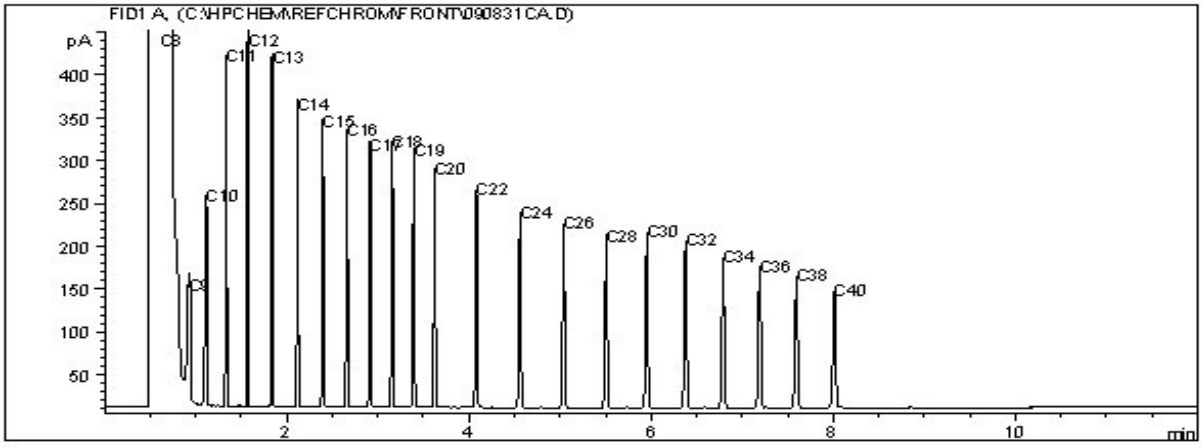
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57023

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 4A-09-8-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

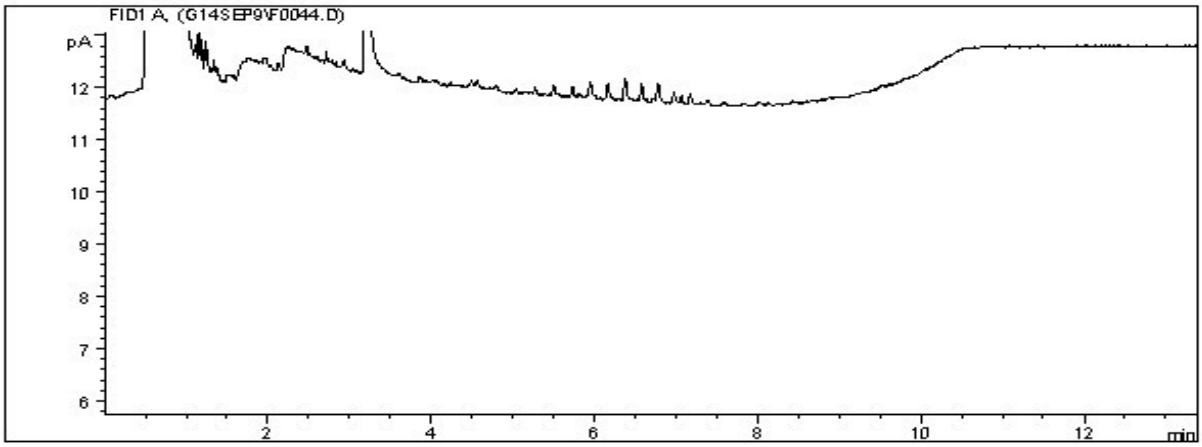
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

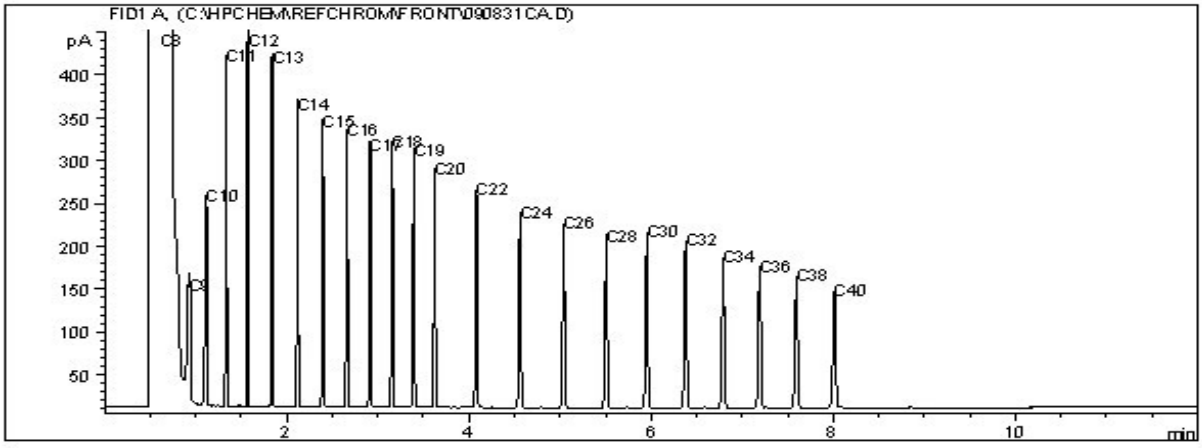
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57029

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09TP4-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

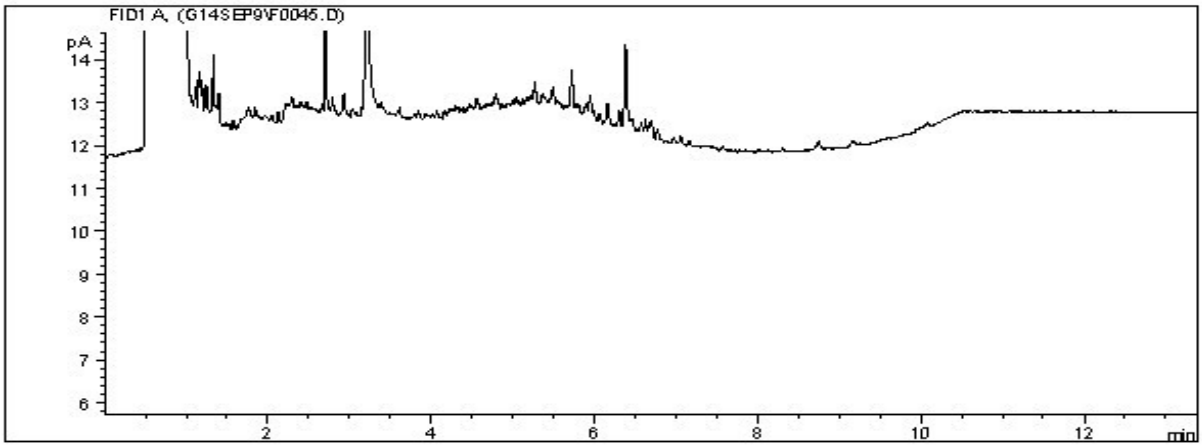
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

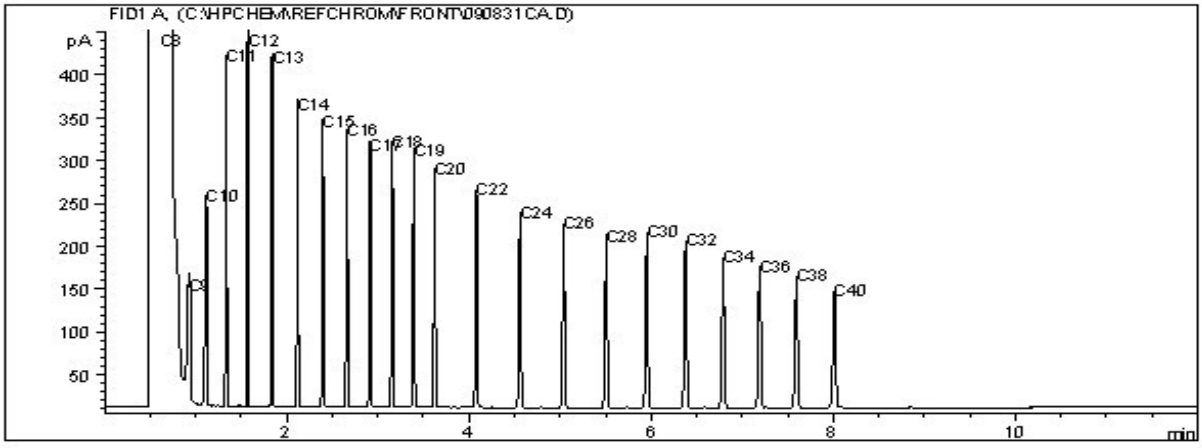
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57032

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 6-09TP1-3

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

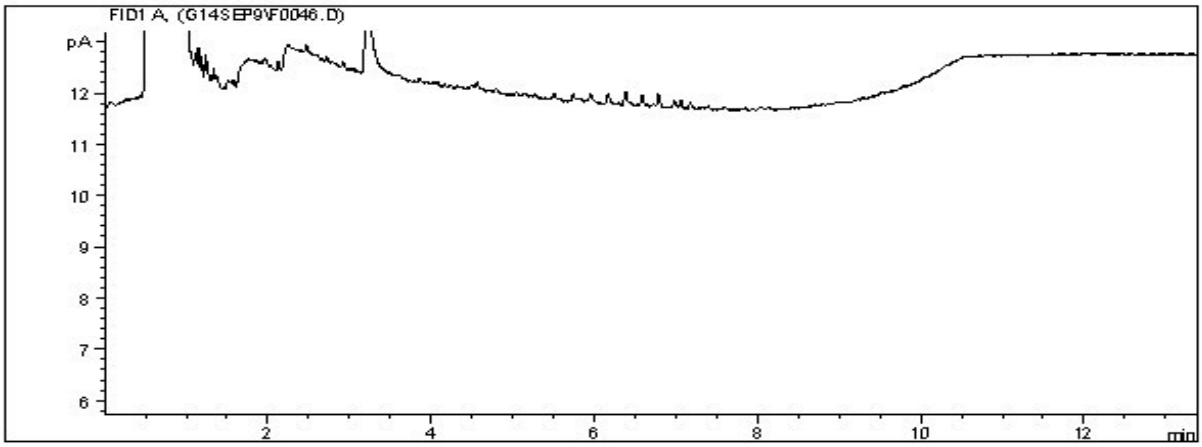
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

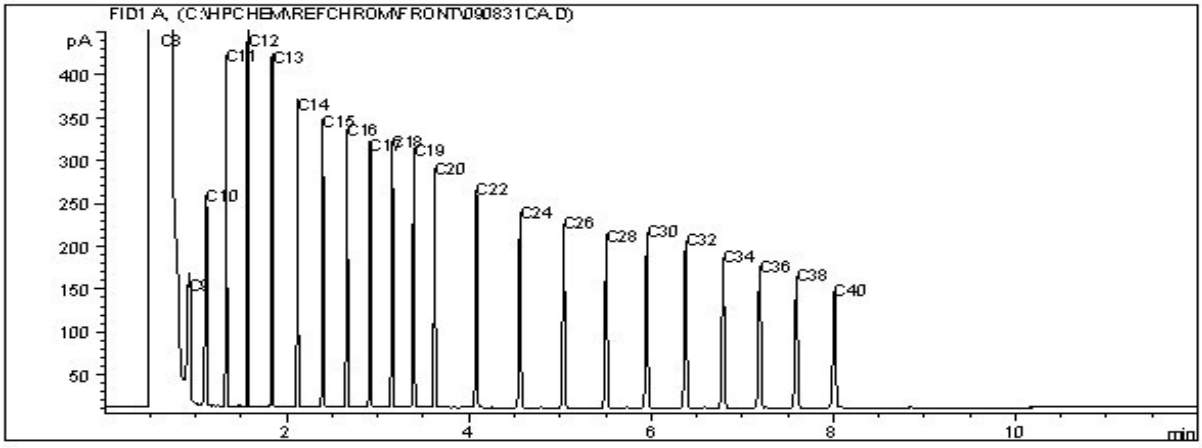
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57059

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09-TP1-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

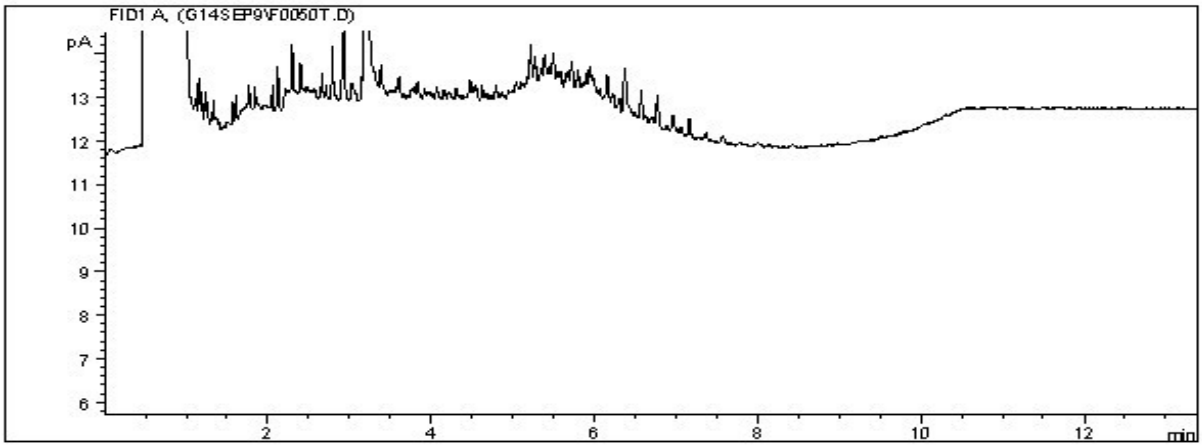
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

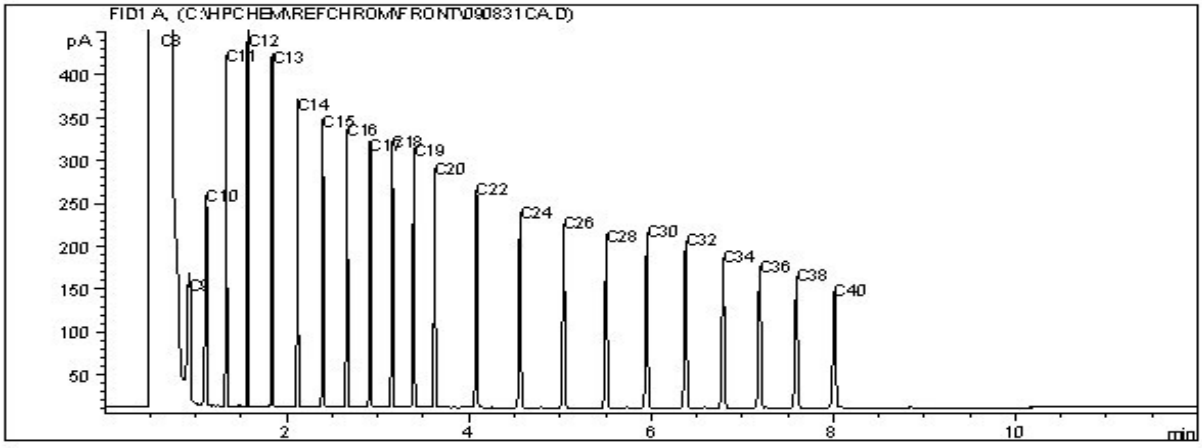
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57062

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09-TP2-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

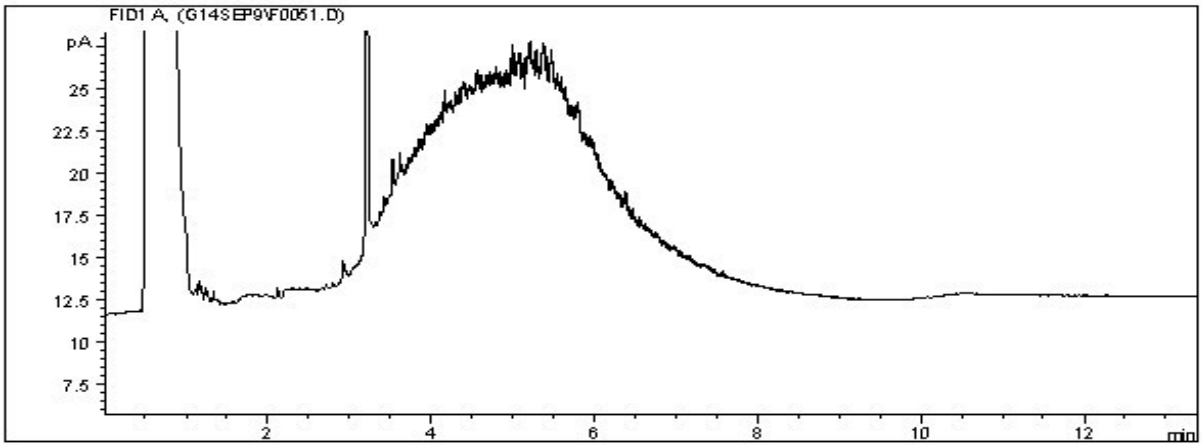
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

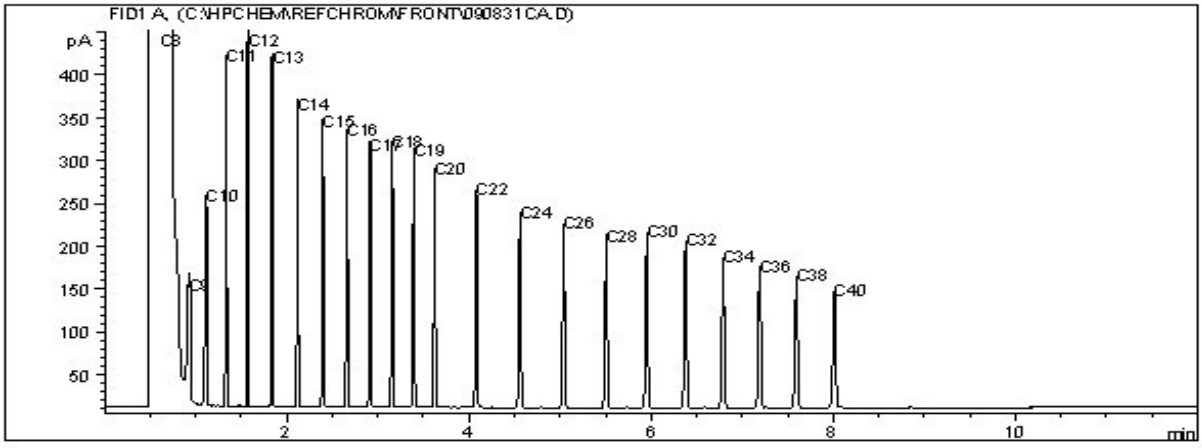
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57065

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 5-09-TP3-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

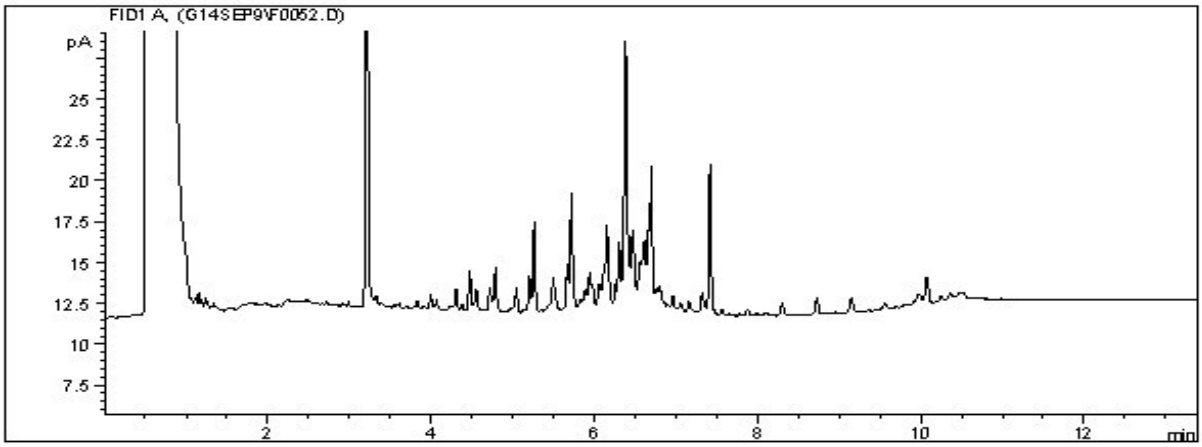
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

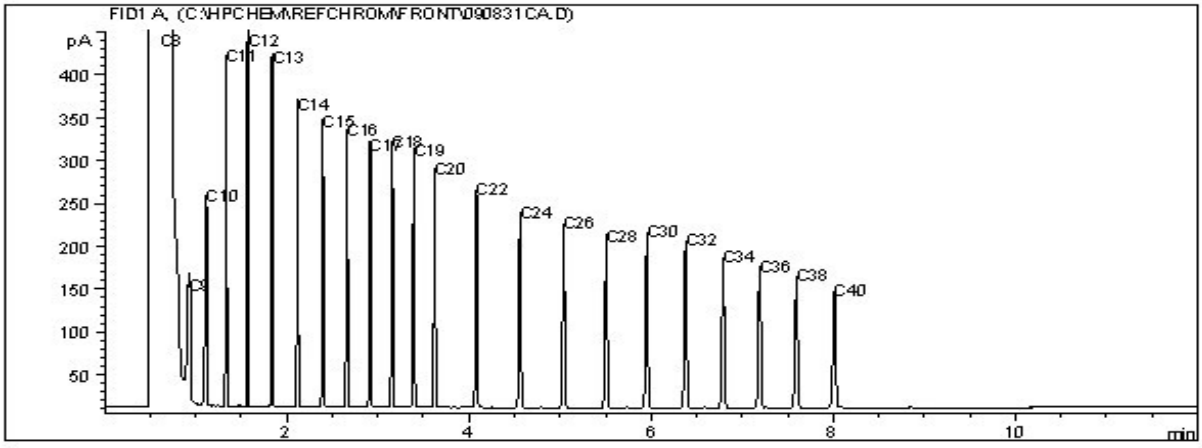
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57101

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP1-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

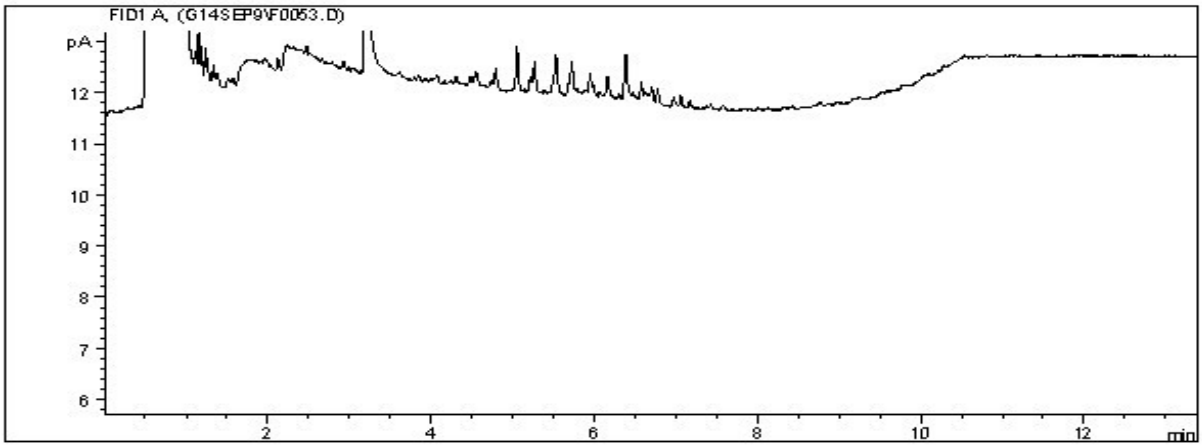
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

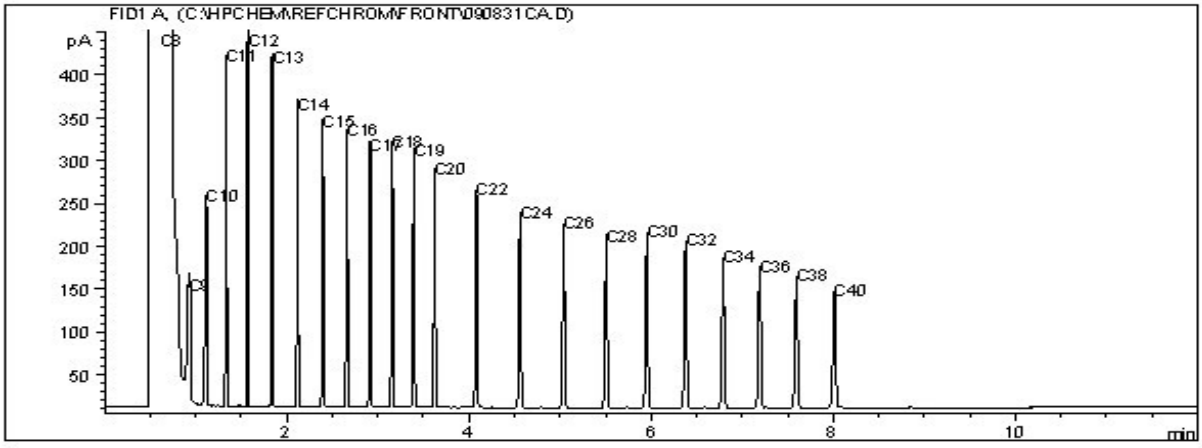
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57103

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP2-2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

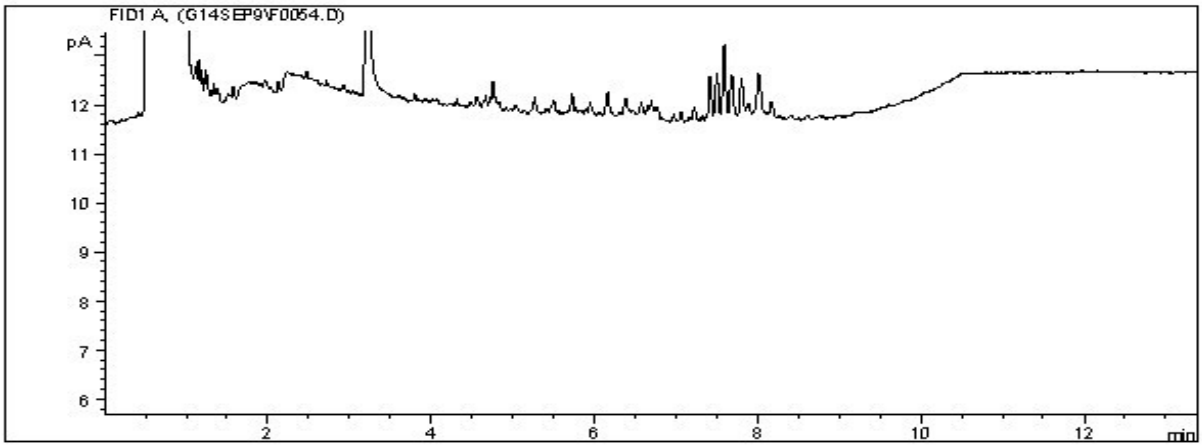
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

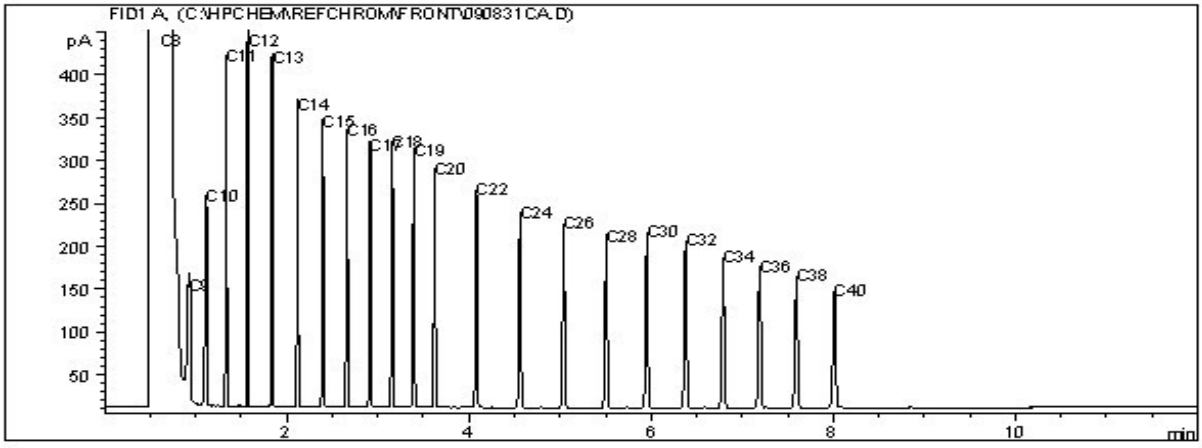
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57104

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP3-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

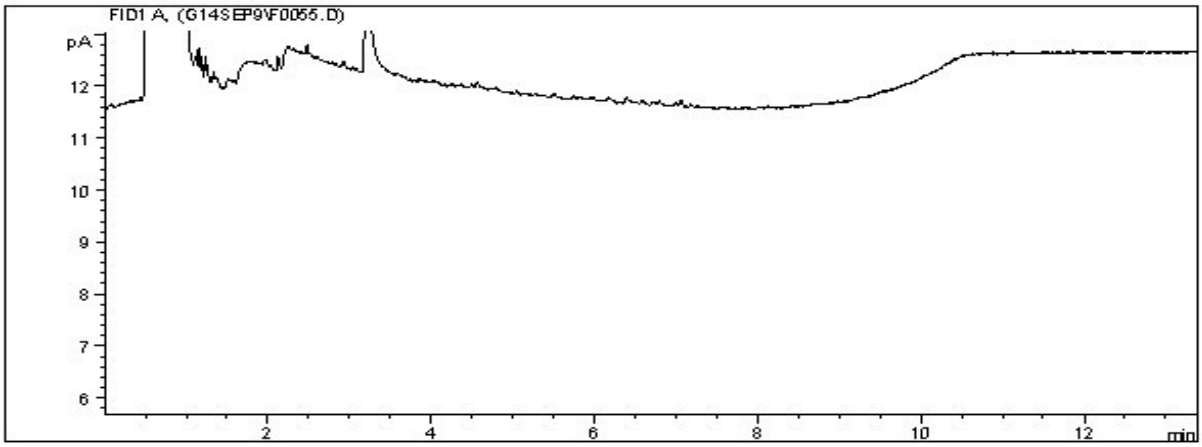
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

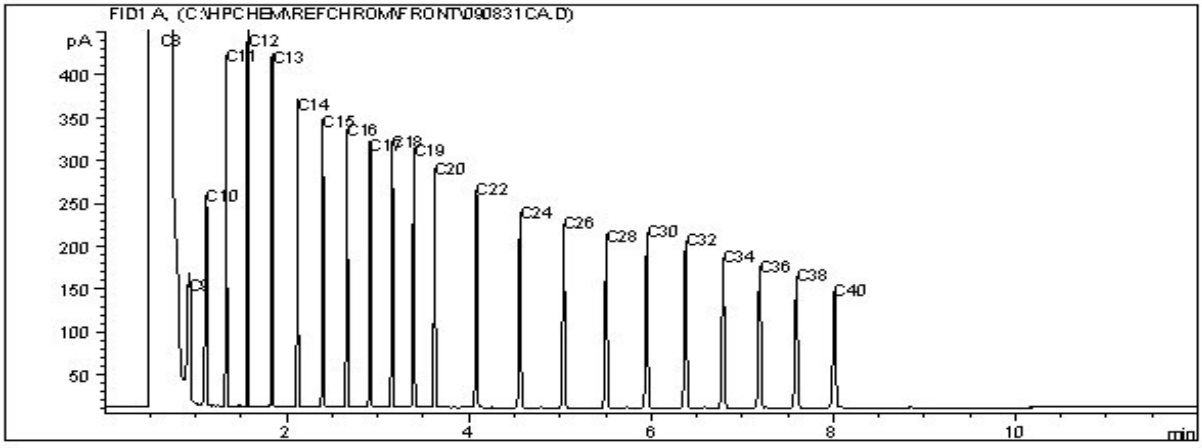
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57106

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP4

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

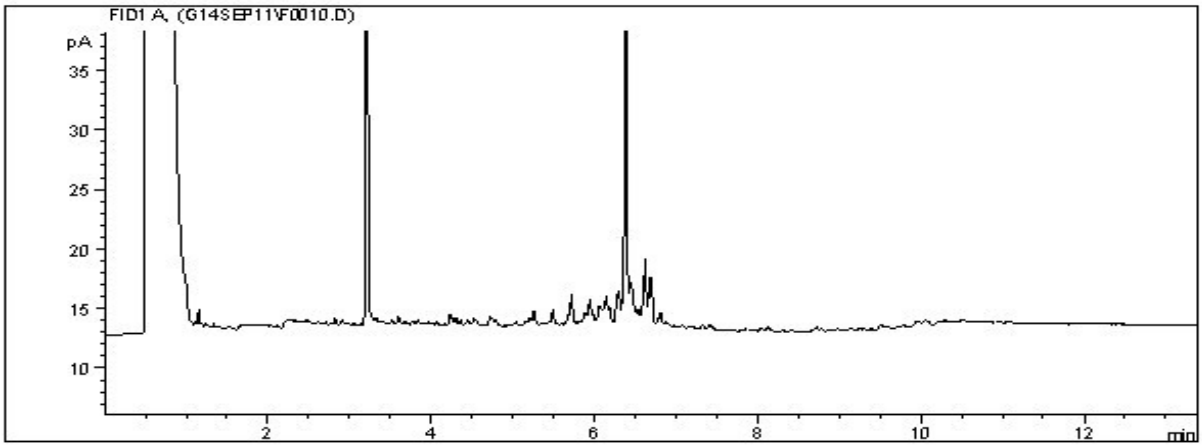
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

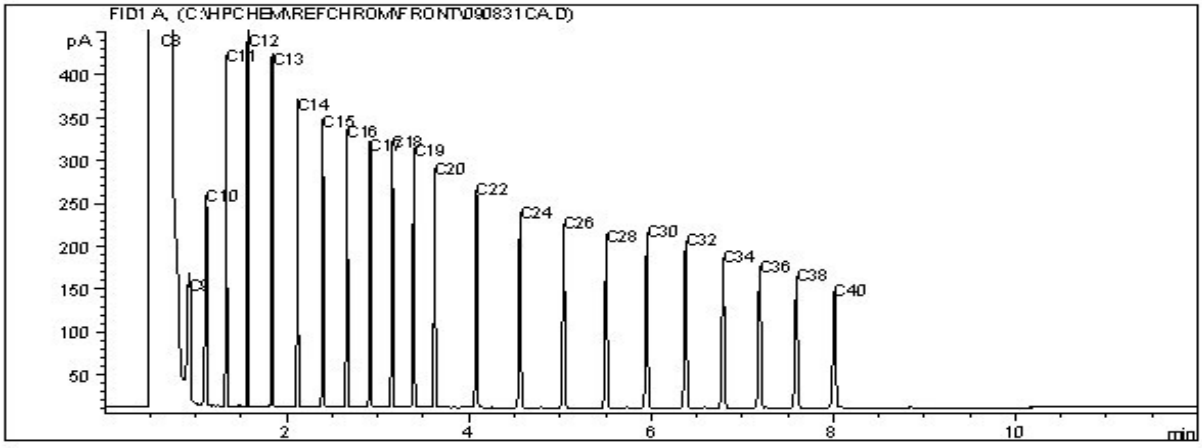
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57107

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP5-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

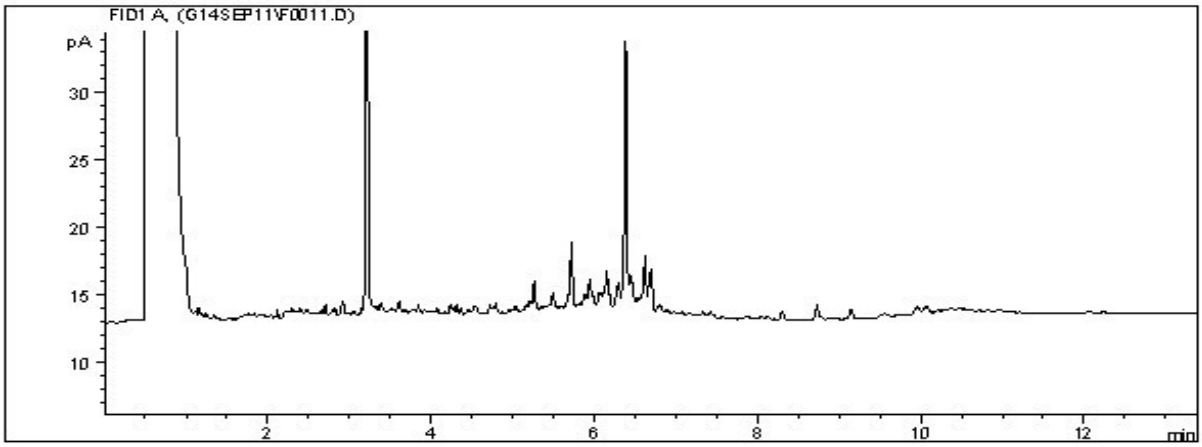
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

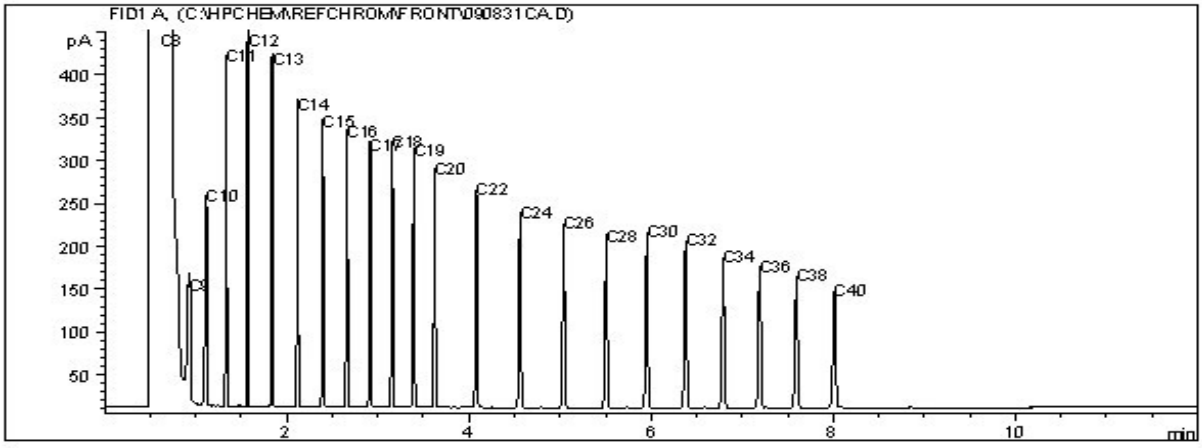
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57107

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP5-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

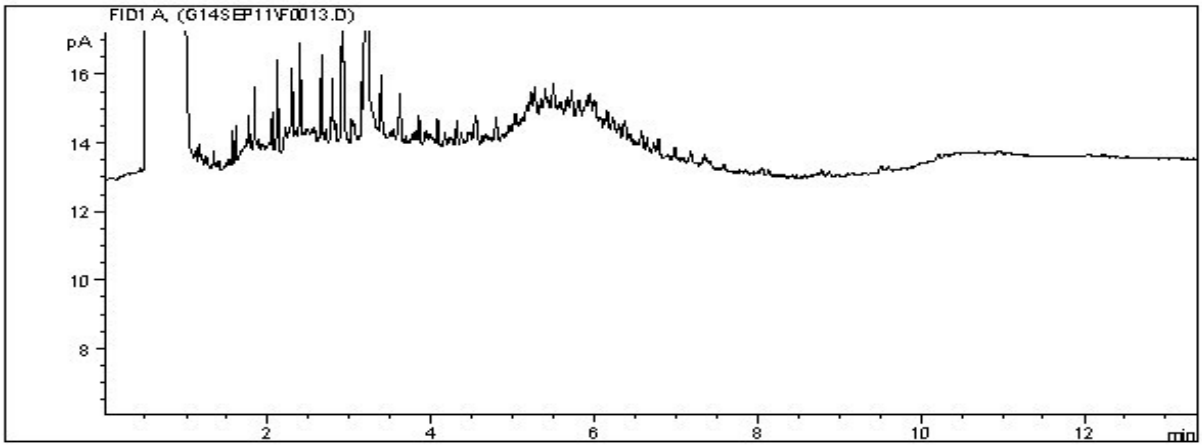
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

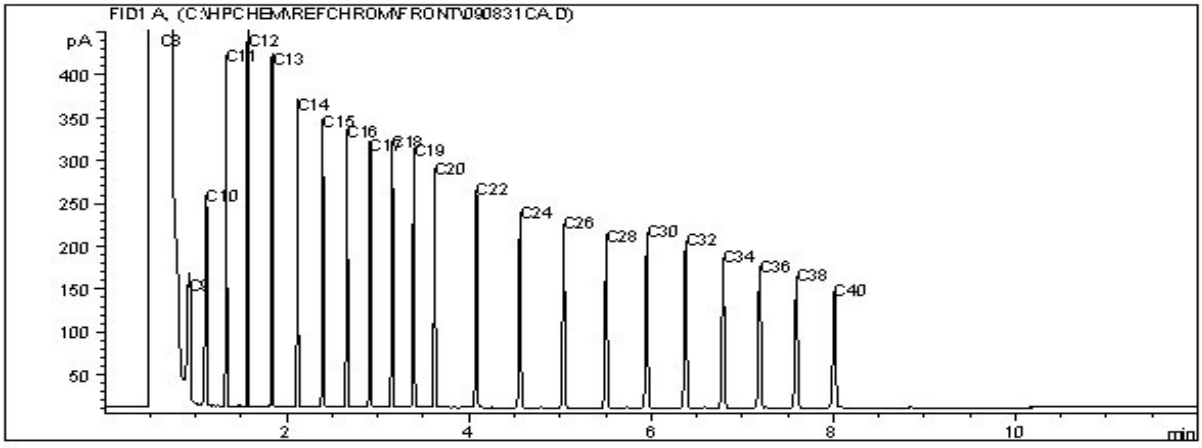
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57108

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP6-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

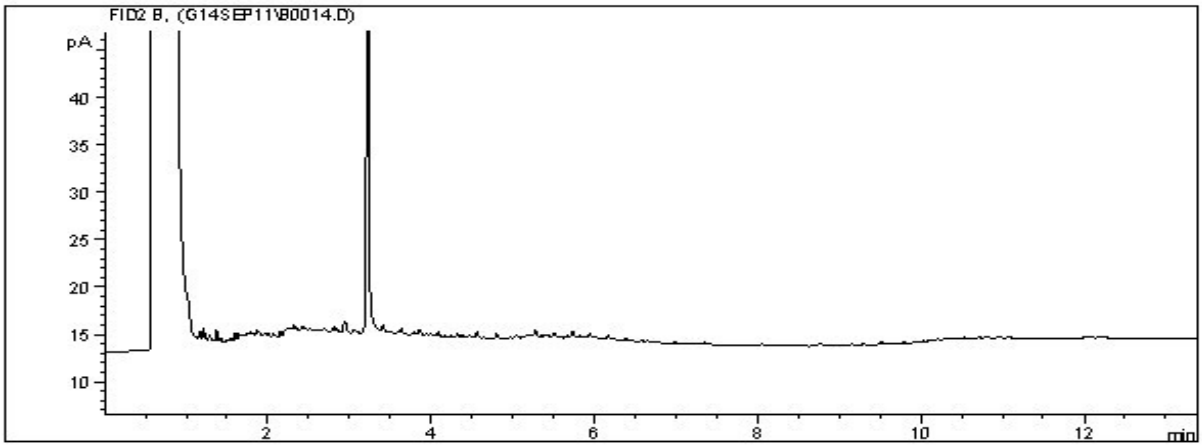
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

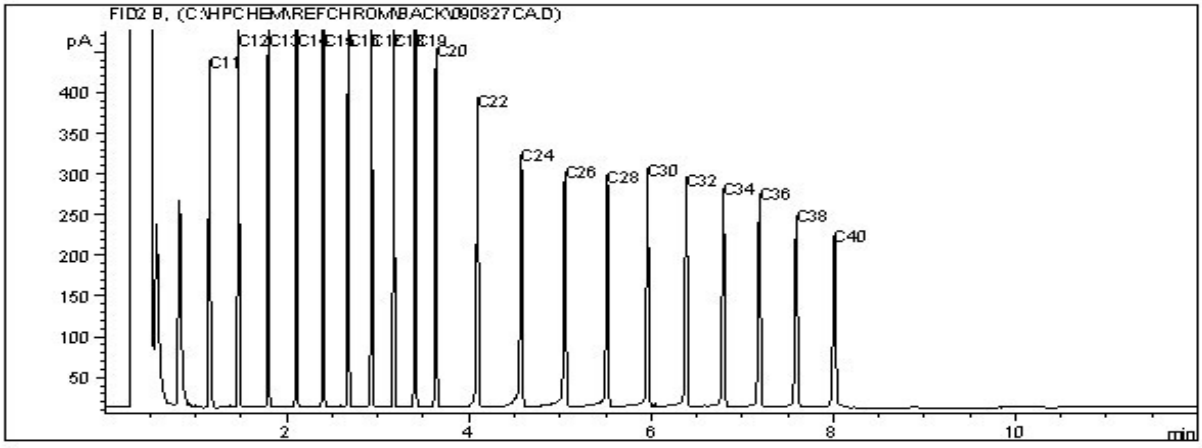
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57109

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP7-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

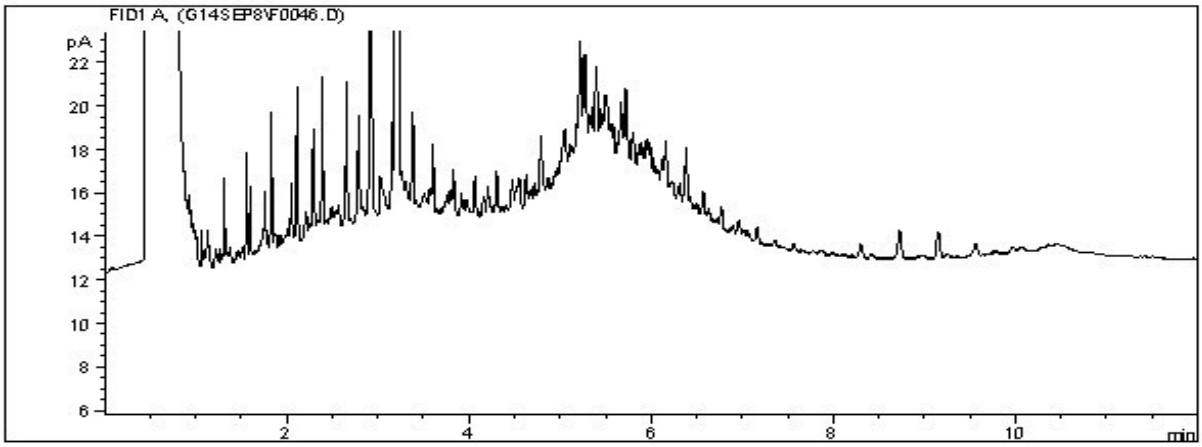
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

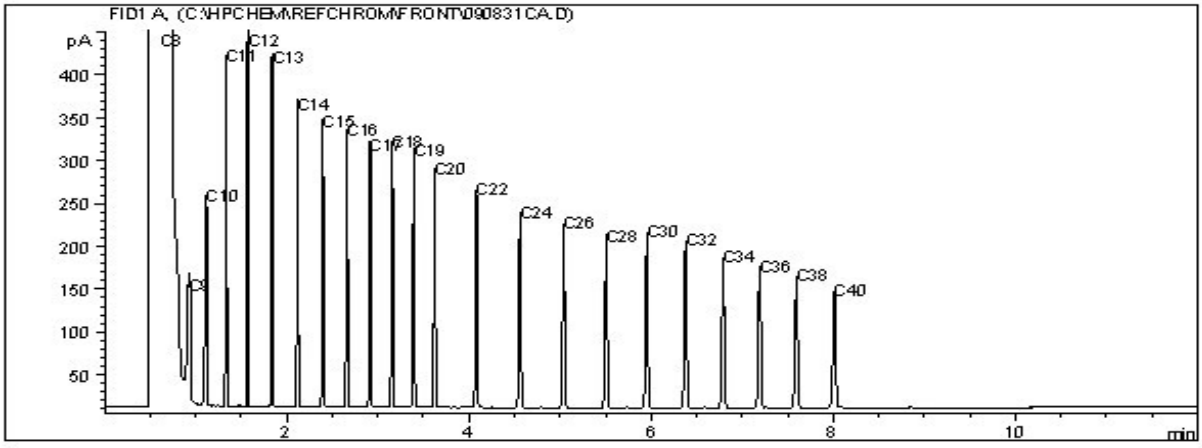
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57110

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP8-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

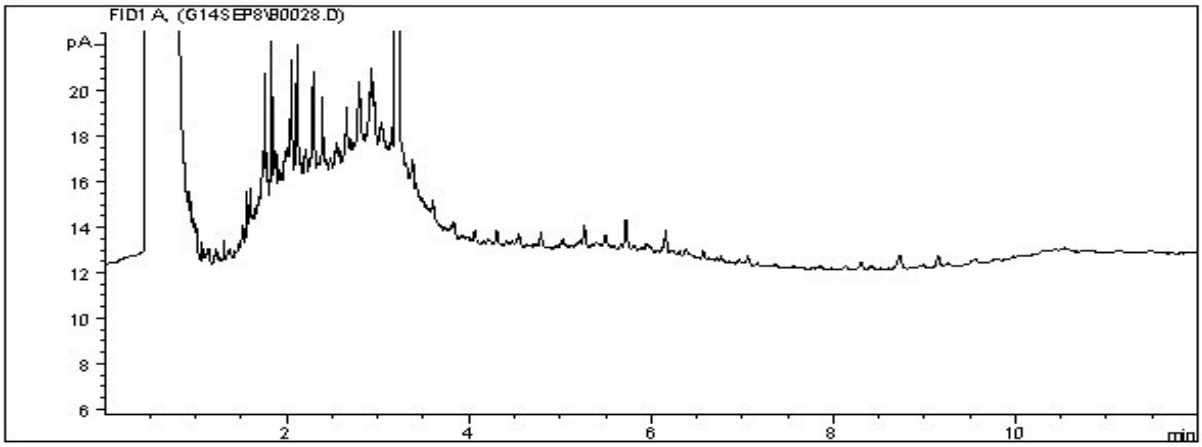
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

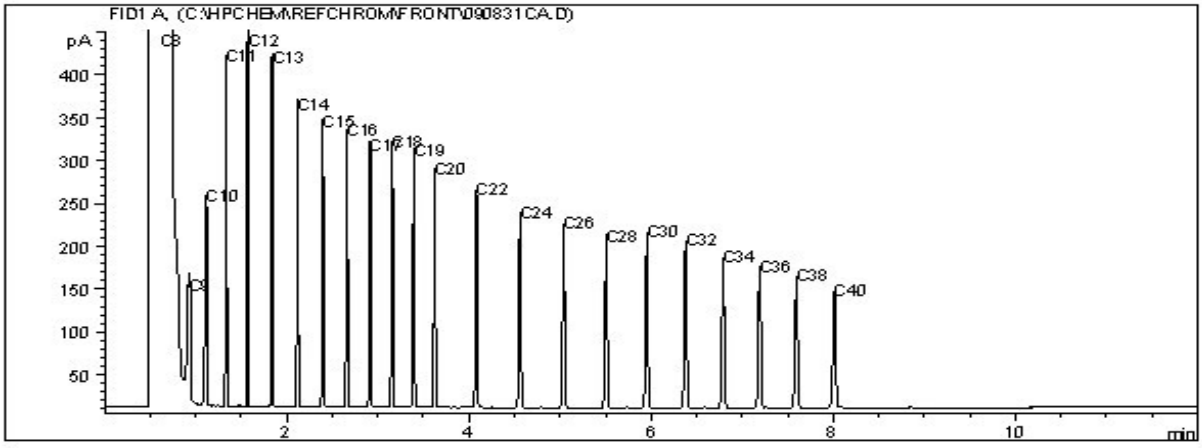
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57111

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP9-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

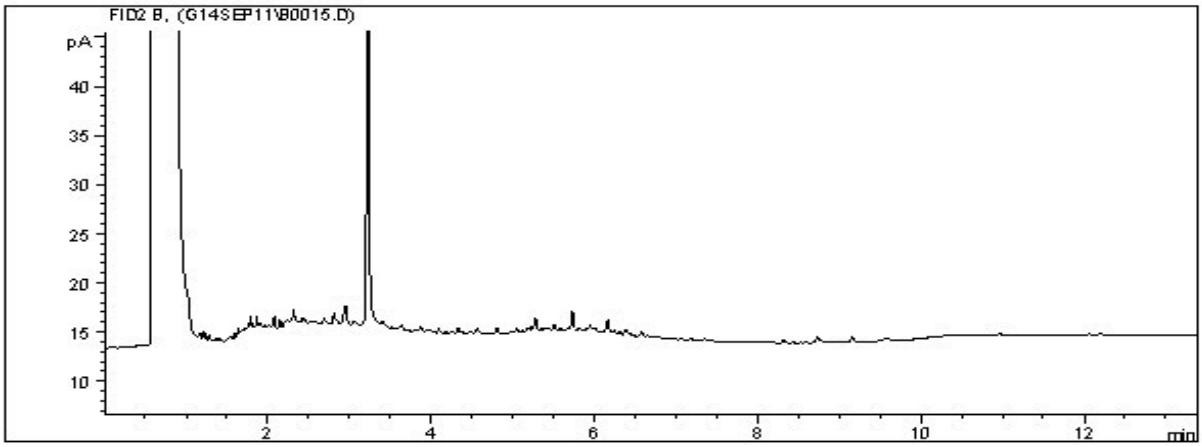
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

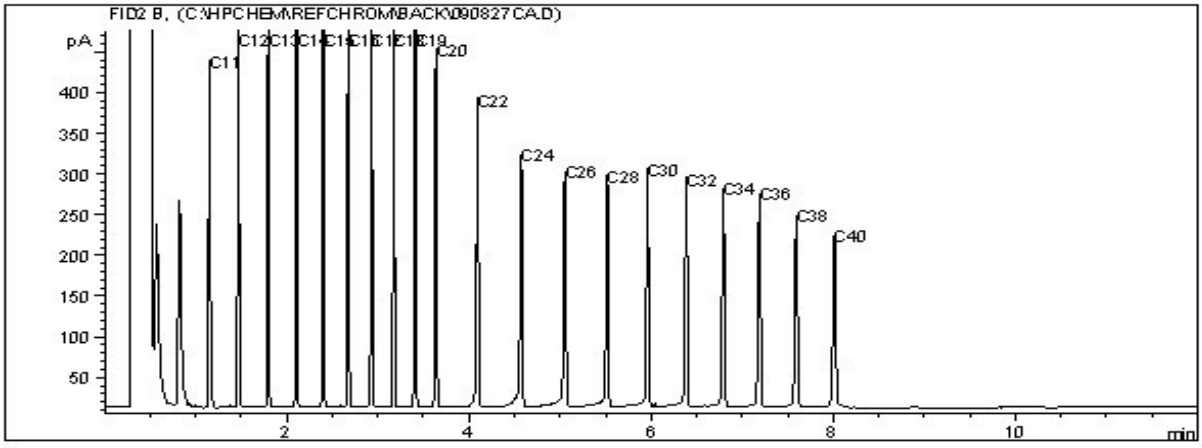
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57114

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: 2-09-TP10-1

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

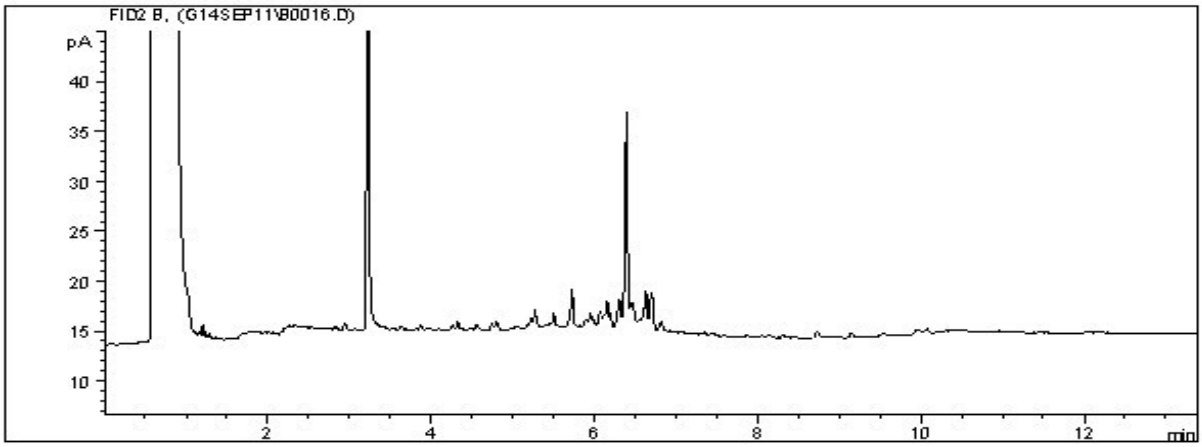
Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

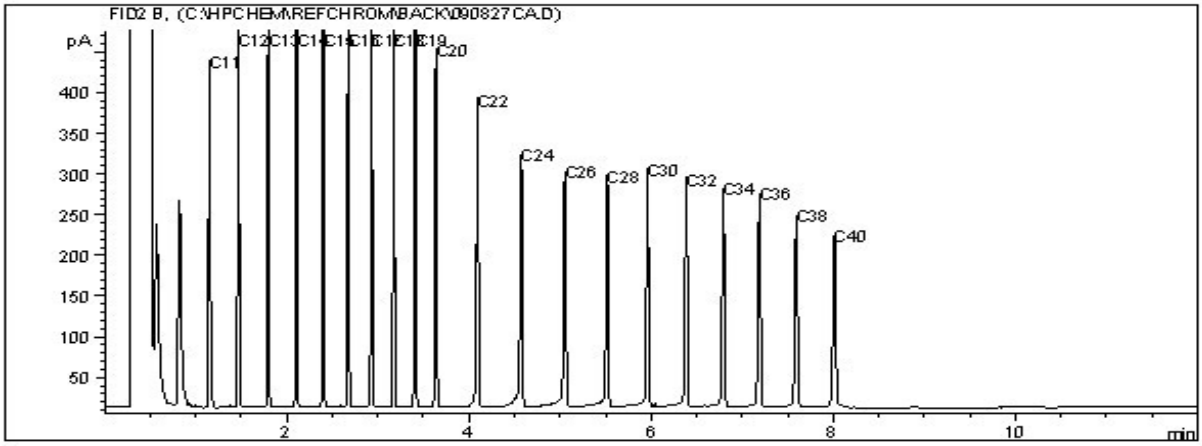
Report Date: 2009/12/15
Maxxam Job #: A947822
Maxxam Sample: Q57115

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Client ID: GR2

CCME Hydrocarbons (F2-F4 in soil) Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40
Kerosene:	C7 - C16	Crude Oils:	C3 - C60+

Page 1 of 1

Note: This information is provided for reference purposes only. Should detailed chemist intrepretation or fingerprinting be required to please contact the laboratory.

Your Project #: A947822
Your C.O.C. #: na

Attention: Kimberley Webber
Maxxam Analytics
8577 Commerce Crt
Burnaby, BC
V5A 4N5

Report Date: 2009/09/18

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B7918
Received: 2009/09/09, 13:17

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PFOS and PFOA in soil	5	2009/09/11	2009/09/16	CAM SOP-00894	In house method

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

Encryption Key

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DQ3180		DQ3181		
Sampling Date		2009/08/29		2009/08/29		
	Units	**Q56933-03R\3-09-1-1**	**QC Batch**	**Q56937-01R\3-09-3-2**	**RDL**	**QC Batch**
Miscellaneous Parameters						
Perfluoro-1-Octanesulfonate (PFOS)	ng/g	830	1942158	<25	25	1936161
Perfluoro-n-Octanoic Acid (PFOA)	ng/g	<2.5	1936161	5.8	2.5	1936161

Maxxam ID		DQ3182	DQ3183		DQ3184		
Sampling Date		2009/08/29	2009/08/29		2009/08/29		
	Units	**Q56940-03R\3-09-4M-3**	**Q56941-03R\3-09-DUP-1**	**QC Batch**	**Q56947-03R\3-09-6M-3**	**RDL**	**QC Batch**
Miscellaneous Parameters							
Perfluoro-1-Octanesulfonate (PFOS)	ng/g	620	820	1936161	53	25	1942158
Perfluoro-n-Octanoic Acid (PFOA)	ng/g	9.6	3.2	1936161	5.5	2.5	1936161

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

PFOS and PFOA in soil: The recovery of PFOS in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.
Duplicate results exceeded RPD acceptance criteria for PFOS. This may be due to sample heterogeneity.

Sample DQ3180, PFOS and PFOA in soil: Test repeated.
PFOS and PFOA in soil: The recovery of PFOS in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.

Sample DQ3184, PFOS and PFOA in soil: Test repeated.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7918
Report Date: 2009/09/18

Maxxam Analytics
Client Project #: A947822

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1936161	Perfluoro-1-Octanesulfonate (PFOS)	2009/09/16	NC	N/A	113	N/A	<25	ng/g		
1936161	Perfluoro-n-Octanoic Acid (PFOA)	2009/09/16	112	N/A	88	N/A	<2.5	ng/g	NC	20
1942158	Perfluoro-1-Octanesulfonate (PFOS)	2009/09/18	N/C	N/A	108	N/A	<25	ng/g	NC	20

N/A = Not Applicable
RPD = Relative Percent Difference
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B7918

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

ADAM ROBINSON, Technical Service

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: A947822
Your C.O.C. #: n/a

Attention: Kimberley Webber
Maxxam Analytics
8577 Commerce Crt
Burnaby, BC
V5A 4N5

Report Date: 2009/10/05
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B6098
Received: 2009/09/04, 10:40

Sample Matrix: Soil
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
MOISTURE	9	N/A	2009/09/09	CAM SOP-00445	McKeague 2nd ed 1978
MOISTURE	1	N/A	2009/10/01	CAM SOP-00445	McKeague 2nd ed 1978
OC Pesticides (Selected) & PCB (1)	3	2009/09/09	2009/09/09	CAM SOP-00307	SW846 8081, 8082
Polychlorinated Biphenyl in Soil	7	2009/09/08	2009/09/08	CAM SOP-00309	SW846 8082
Polychlorinated Biphenyl in Soil	1	2009/09/08	2009/09/10	CAM SOP-00309	SW846 8082
Polychlorinated Biphenyl in Soil	1	2009/10/01	2009/10/02	CAM SOP-00309	SW846 8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DP3378	DP3379	DP3380	DP3381	DP3382	DP3383		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29	2009/08/29	2009/08/29		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**Q57104 \ 2-09-TP3-1**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Inorganics									
Moisture	%	9.8	8.7	11	22	5.9	14	0.2	1933152

Maxxam ID		DP3384	DP3385	DP7276		DW4928		
Sampling Date		2009/08/29	2009/08/29	2009/08/29				
	Units	**Q57111 \ 2-09-TP9-1**	**Q56938 \ 3-09-4M-1**	**Q56940 \ 3-09-4M-3**	**QC Batch**	**Q56941-02R/3-09-DUP-1**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	18	5.2	8.9	1933152	6.5	0.2	1957641

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3379	DP3380	DP3381	DP3382		
Sampling Date		2009/08/29	2009/08/30	2009/08/29	2009/08/29	2009/08/29		
	Units	**Q56950 \ 1-09-2M-1**	**Q56980 \ 1-09-6M-1**	**Q57100 \ 2-09-TP1-1**	**Q57103 \ 2-09-TP2-2**	**Q57104 \ 2-09-TP3-1**	**RDL**	**QC Batch**
PCBs								
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Total PCB	ug/g	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	1931812
Surrogate Recovery (%)								
2,4,5,6-Tetrachloro-m-xylene	%	76	83	77	89	70		1931812
Decachlorobiphenyl	%	79	80	74	75	75		1931812

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		DP3384	DP3385	DP7276		DW4928		
Sampling Date		2009/08/29	2009/08/29	2009/08/29				
	Units	**Q57111 \ 2-09-TP9-1**	**Q56938 \ 3-09-4M-1**	**Q56940 \ 3-09-4M-3**	**QC Batch**	**Q56941-02R/3-09-DUP-1**	**RDL**	**QC Batch**
PCBs								
Aroclor 1262	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1016	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1221	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1232	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1242	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1248	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1254	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1260	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Aroclor 1268	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Total PCB	ug/g	<0.01	<0.01	<0.01	1931812	<0.01	0.01	1957835
Surrogate Recovery (%)								
2,4,5,6-Tetrachloro-m-xylene	%	68	91	65	1931812	71		1957835
Decachlorobiphenyl	%	69	81	70	1931812	83		1957835

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Pesticides & Herbicides						
Hexachlorobutadiene	ug/g	<0.01	<0.01	<0.01	0.01	1933312
Aldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
b-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
d-BHC	ug/g	<0.002	<0.002	<0.002	0.002	1933312
a-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
g-Chlordane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Chlordane (Total)	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDD + p,p-DDD	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDE + p,p-DDE	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
o,p-DDT + p,p-DDT	ug/g	<0.002	<0.002	<0.002	0.002	1933312
DDT+ Metabolites	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Dieldrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan I	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan II	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endosulfan sulfate	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Total Endosulfan	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin aldehyde	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Endrin ketone	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Heptachlor epoxide	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Hexachlorobenzene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Lindane	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Methoxychlor	ug/g	<0.008	<0.008	<0.008	0.008	1933312
Mirex	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Octachlorostyrene	ug/g	<0.002	<0.002	<0.002	0.002	1933312
Toxaphene	ug/g	<0.08	<0.08	<0.08	0.08	1933312

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Maxxam ID		DP3378	DP3381	DP3383		
Sampling Date		2009/08/29	2009/08/29	2009/08/29		
	Units	**Q56950 \ 1-09-2M-1**	**Q57103 \ 2-09-TP2-2**	**Q57110 \ 2-09-TP8-1**	**RDL**	**QC Batch**
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	73	70	73		1933312
Decachlorobiphenyl	%	90	91	93		1933312

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1931812	2,4,5,6-Tetrachloro-m-xylene	2009/09/08	94	40 - 130	100	40 - 130	96	%		
1931812	Decachlorobiphenyl	2009/09/08	85	40 - 130	83	40 - 130	83	%		
1931812	Aroclor 1260	2009/09/08	112	30 - 130	108	30 - 130	<0.01	ug/g	NC	50
1931812	Total PCB	2009/09/08	112	30 - 130	108	30 - 130	<0.01	ug/g	NC	50
1931812	Aroclor 1262	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1016	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1221	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1232	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1242	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1248	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1254	2009/09/08					<0.01	ug/g	NC	50
1931812	Aroclor 1268	2009/09/08					<0.01	ug/g	NC	50
1933152	Moisture	2009/09/09							0.6	50
1933312	2,4,5,6-Tetrachloro-m-xylene	2009/09/09	45	40 - 130	67	40 - 130	68	%		
1933312	Decachlorobiphenyl	2009/09/09	87	40 - 130	84	40 - 130	89	%		
1933312	Hexachlorobutadiene	2009/09/09	34	N/A	73	N/A	<0.01	ug/g	NC	50
1933312	Aldrin	2009/09/09	68	40 - 130	79	40 - 130	<0.002	ug/g	NC	50
1933312	a-BHC	2009/09/09	54	40 - 130	69	40 - 130	<0.002	ug/g	NC	50
1933312	b-BHC	2009/09/09	75	40 - 130	79	40 - 130	<0.002	ug/g	NC	50
1933312	d-BHC	2009/09/09	89	40 - 130	94	40 - 130	<0.002	ug/g	NC	50
1933312	a-Chlordane	2009/09/09	79	40 - 130	83	40 - 130	<0.002	ug/g	NC	50
1933312	g-Chlordane	2009/09/09	86	40 - 130	89	40 - 130	<0.002	ug/g	NC	50
1933312	o,p-DDD	2009/09/09	89	40 - 130	90	40 - 130	<0.002	ug/g	NC	50
1933312	p,p-DDD	2009/09/09	93	40 - 130	104	40 - 130	<0.002	ug/g	NC	50
1933312	o,p-DDE	2009/09/09	81	40 - 130	87	40 - 130	<0.002	ug/g	NC	50
1933312	p,p-DDE	2009/09/09	86	40 - 130	87	40 - 130	<0.002	ug/g	NC	50
1933312	o,p-DDT	2009/09/09	85	40 - 130	97	40 - 130	<0.002	ug/g	NC	50
1933312	p,p-DDT	2009/09/09	99	40 - 130	114	40 - 130	<0.002	ug/g	NC	50
1933312	Dieldrin	2009/09/09	90	40 - 130	95	40 - 130	<0.002	ug/g	NC	50
1933312	Endosulfan I	2009/09/09	79	40 - 130	85	40 - 130	<0.002	ug/g	NC	50
1933312	Endosulfan II	2009/09/09	95	40 - 130	101	40 - 130	<0.002	ug/g	NC	50
1933312	Endosulfan sulfate	2009/09/09	92	40 - 130	95	40 - 130	<0.002	ug/g	NC	50
1933312	Endrin	2009/09/09	85	40 - 130	92	40 - 130	<0.002	ug/g	NC	50
1933312	Endrin aldehyde	2009/09/09	77	40 - 130	112	40 - 130	<0.002	ug/g	NC	50
1933312	Endrin ketone	2009/09/09	99	40 - 130	100	40 - 130	<0.002	ug/g	NC	50
1933312	Heptachlor	2009/09/09	59	40 - 130	68	40 - 130	<0.002	ug/g	NC	50
1933312	Heptachlor epoxide	2009/09/09	71	40 - 130	74	40 - 130	<0.002	ug/g	NC	50
1933312	Hexachlorobenzene	2009/09/09	53	20 - 130	67	20 - 130	<0.002	ug/g	NC	50
1933312	Lindane	2009/09/09	71	40 - 130	87	40 - 130	<0.002	ug/g	NC	50
1933312	Methoxychlor	2009/09/09	87	40 - 130	94	40 - 130	<0.008	ug/g	NC	50

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B6098
Report Date: 2009/10/05

Maxxam Analytics
Client Project #: A947822

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1933312	Mirex	2009/09/09	87	40 - 130	83	40 - 130	<0.002	ug/g	NC	50
1933312	Octachlorostyrene	2009/09/09	76	40 - 130	90	40 - 130	<0.002	ug/g	NC	50
1933312	Toxaphene	2009/09/09					<0.08	ug/g	NC	50
1933312	Chlordane (Total)	2009/09/09					<0.002	ug/g	NC	50
1933312	o,p-DDD + p,p-DDD	2009/09/09					<0.002	ug/g	NC	50
1933312	o,p-DDE + p,p-DDE	2009/09/09					<0.002	ug/g	NC	50
1933312	o,p-DDT + p,p-DDT	2009/09/09					<0.002	ug/g	NC	50
1933312	DDT+ Metabolites	2009/09/09					<0.002	ug/g	NC	50
1933312	Total Endosulfan	2009/09/09					<0.002	ug/g	NC	50
1957641	Moisture	2009/10/01							7.5	50
1957835	2,4,5,6-Tetrachloro-m-xylene	2009/10/02	83	40 - 130	103	40 - 130	96	%		
1957835	Decachlorobiphenyl	2009/10/02	109	40 - 130	102	40 - 130	99	%		
1957835	Aroclor 1260	2009/10/02	103	30 - 130	108	30 - 130	<0.01	ug/g	NC	50
1957835	Total PCB	2009/10/02	103	30 - 130	108	30 - 130	<0.01	ug/g	NC	50
1957835	Aroclor 1262	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1016	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1221	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1232	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1242	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1248	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1254	2009/10/02					<0.01	ug/g	NC	50
1957835	Aroclor 1268	2009/10/02					<0.01	ug/g	NC	50

N/A = Not Applicable
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B6098

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

CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst

CRISTINA CARRIERE, Scientific Services

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

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: MA9B4545

Attention: SUB CONTRACTOR
MAXXAM ANALYTICS INC.
CAMPOBELLO
6740 CAMPOBELLO ROAD
MISSISSAUGA, ON
CANADA L5N 2L8

Report Date: 2009/09/10

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A947884
Received: 2009/09/03, 8:25

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Texture by Hydrometer	2	N/A	2009/09/10	CAL SOP-00033	MMFSPA Ch9
Texture Class	2	N/A	2009/09/10	CAL SOP-00033	MMFSPA Ch9

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

Encryption Key

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

LINSAY DAME, Project Manager Assistant
Email: Linsay.Dame@MaxxamAnalytics.com
Phone# (403) 291-3077

==========

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 CALA 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 ANALYTICS INC.
Client Project #: MA9B4545

Maxxam Job #: A947884
Report Date: 2009/09/10

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q57368	Q57373		
Sampling Date		2009/08/19	2009/08/19		
	Units	**1-5 (DO5850)**	**3-1 (DO5851)**	**RDL**	**QC Batch**
Physical Properties					
% sand by hydrometer	%	66	70	2	3408315
% silt by hydrometer	%	26	22	2	3408315
Clay Content	%	8	8	2	3408315
Texture	N/A	SANDY LOAM	SANDY LOAM	N/A	3394653
RDL = Reportable Detection Limit					

Maxxam Job #: A947884
Report Date: 2009/09/10

MAXXAM ANALYTICS INC.
Client Project #: MA9B4545

Package 1	10.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Results relate only to the items tested.

MAXXAM ANALYTICS INC.
Attention: SUB CONTRACTOR
Client Project #: MA9B4545
P.O. #:
Site Reference:

Quality Assurance Report

Maxxam Job Number: CA947884

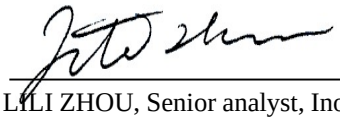
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3408315	SMB	QC Standard	% sand by hydrometer	2009/09/10		104	%	75 - 125
			% silt by hydrometer	2009/09/10		99	%	75 - 125
			Clay Content	2009/09/10		87	%	75 - 125
		RPD	% sand by hydrometer	2009/09/10	7.0		%	35
			% silt by hydrometer	2009/09/10	12.2		%	35
			Clay Content	2009/09/10	1.9		%	35

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Validation Signature Page

Maxxam Job #: A947884

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



LILI ZHOU, Senior analyst, Inorganic department.

==========

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 CALA have approved this reporting process and electronic report format.

MAXXAM ANALYTICS
6740 Campobello Road
Mississauga, Ontario, L5N 2L8
Phone: (905) 817-5700
Fax: (905) 817-5777

Maxxam Analytics Inc

SUBCONTRACTING REQUEST FORM

Franz Environmental Inc - Ottawa
Maxxam PM Melissa Morrison

To: Campo to Calgary Subcontract

Job# A9B4545

☐ Yes ☐ No International Sample/BioHazard (if yes, add copy of Movement Cert., heat treat is required prior to disposal)
☐ Yes ☐ No Special Protocol (if yes, Protocol _____)

CA97884

Received @ Subcontract Lab by (sign) _____ (print) Mary Xu

Received @ Subcontract Lab (Date) 09/03 (Time) 8:25

Received Lab's Job # _____ Inspected by (print) _____ SIF ☐ Yes ☐ No
Upon receipt, record 3 temperatures for **each** package/cooler. If required by contract or legal sample,indicate if custody sealed.

Temp1 10 Temp2 10 Temp3 10 Custody sealed ~~Yes~~ Yes

Sample ID	Matrix	Test(s) Required	Container	Date Sampled	Date Required
DO5850-01R \ 1-5	S	Soil Texture (% sand, %silt, %clay)	1(F24S)	2009/08/19	2009/09/11
DO5851-01R \ 3-1	S	Soil Texture (% sand, %silt, %clay)	1(F24S)	2009/08/19	2009/09/11

NOTES:
1) Please call us if due date cannot be met. Please reference Sample ID on your report.
2) Include copy of this completed form, Client COC & signed final report to **scontractor@maxxamanalytics.com**

SHIPPING INSTRUCTIONS

☐ Ship Immediately (highlight Yellow)
☐ Requires 9am
☐ Requires Sat. Delivery
☐ Regular Ship next available day
☐ Ship Cold
☐ Ship Room Temp
☐ Ship Frozen
☐ COC Must be Attached

Sender (Print) _____ Initial _____

SHIPPING DEPARTMENT CHECKLIST

☐ Correct Shipping location
☐ Correct Sample Ids (Paperwork vs Bottles)
☐ Yes ☐ No Special-Cooler, Ice, Tape-custody seal, Date&Sign

Date Shipped _____
Shipper (Print) _____ Initial _____

Your Project #: 1748-0901, CAMBRIDGE BAY
Site: CAMBRIDGE BAY
Your C.O.C. #: 80724, 80721

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2009/09/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A948579
Received: 2009/09/05, 7:00

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS	2	N/A	2009/09/06	CAL SOP-00190	EPA 8260 C / CCME
BTEX/F1 in Water by HS GC/MS	2	N/A	2009/09/09	CAL SOP-00190	EPA 8260 C / CCME
Cadmium - low level CCME - Dissolved	4	N/A	2009/09/10	CAL SOP-00191	EPA SW-846 6020A
CCME Hydrocarbons (F2-F4 in water)	3	2009/09/08	2009/09/09	CAL SOP-00087	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in water)	1	2009/09/09	2009/09/09	CAL SOP-00087	CCME PHC-CWS
Ethylene, Di, Tri & Tetraethylene glycol	1	N/A	2009/09/10	CAL SOP-00093	EPA 8015 D
Mercury - Low Level (Dissolved)	4	2009/09/09	2009/09/11	CAL SOP-00007	EPA 1631
Elements by ICP - Dissolved	4	N/A	2009/09/09	CAL SOP-00192	EPA SW846 6010B
Elements by ICPMS - Dissolved	4	N/A	2009/09/09	CAL SOP-00191	EPA SW-846 6020A
Benzo[a]pyrene Equivalency	4	N/A	2009/09/14	CAL SOP-00165	EPA 8270D
Polycyclic Aromatic Hydrocarbons (2)	1	2009/09/08	2009/09/10	CAL SOP-00165	EPA 8270D
Polycyclic Aromatic Hydrocarbons (2)	3	2009/09/08	2009/09/11	CAL SOP-00165	EPA 8270D
Total Trihalomethanes Calculation	4	N/A	2009/09/14	CAL SOP-00104	EPA 8260C
VOCs in Water by P&T GC/MS (Std List) (1)	3	N/A	2009/09/11	EENVSOP-00003 EENVSOP-00002	EPA 8260C / CCME
VOCs in Water by P&T GC/MS (Std List) (1)	1	N/A	2009/09/12	EENVSOP-00003 EENVSOP-00002	EPA 8260C / CCME

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

(1) This test was performed by Maxxam Edmonton Environmental
(2) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.

../2

Maxxam Analytics - Partial/Rush Results

Your Project #: 1748-0901, CAMBRIDGE BAY
Site: CAMBRIDGE BAY
Your C.O.C. #: 80724, 80721

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2009/09/14

CERTIFICATE OF ANALYSIS

Encryption Key

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

LESLEY LEM, Project Manager
Email: lesley.lem@maxxamanalytics.com
Phone# (403) 291-3077

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics - Partial/Rush Results

Total cover pages: 2

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Maxxam Analytics - Partial/Rush Results

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		Q61818		Q61819	Q61820		
Sampling Date		2009/09/02		2009/09/02	2009/09/02		
COC Number		80724		80724	80724		
	Units	**04-09-3M**	**RDL**	**4-09-SW1**	**4-09-2M**	**RDL**	**QC Batch**
Extractable Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	mg/L	0.5	0.1	<0.1	<0.1	0.1	3400578
F3 (C16-C34 Hydrocarbons)	mg/L	<0.1	0.1	<0.1	<0.1	0.1	3400578
F4 (C34-C50 Hydrocarbons)	mg/L	<0.1	0.1	<0.1	<0.1	0.1	3400578
Reached Baseline at C50	mg/L	Yes		Yes	Yes		3400578
Volatiles							
Benzene	ug/L	790	4	<0.4	<0.4	0.4	3399600
Toluene	ug/L	1000	4	<0.4	<0.4	0.4	3399600
Ethylbenzene	ug/L	130	4	<0.4	<0.4	0.4	3399600
o-Xylene	ug/L	180	4	<0.4	<0.4	0.4	3399600
m & p-Xylene	ug/L	460	8	<0.8	<0.8	0.8	3399600
Xylenes (Total)	ug/L	640	8	<0.8	<0.8	0.8	3399600
F1 (C6-C10) - BTEX	ug/L	1600	1000	<100	<100	100	3399600
(C6-C10)	ug/L	4200	1000	<100	<100	100	3399600
Surrogate Recovery (%)							
4-BROMOFLUOROBENZENE (sur.)	%	102		92	98		3399600
D4-1,2-DICHLOROETHANE (sur.)	%	99		96	97		3399600
D8-TOLUENE (sur.)	%	99		96	100		3399600
O-TERPHENYL (sur.)	%	78		74	76		3400578

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Maxxam Analytics - Partial/Rush Results

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		Q61821		
Sampling Date		2009/09/02		
COC Number		80724		
	Units	**4-09-1M**	**RDL**	**QC Batch**
Extractable Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	mg/L	1.4	0.1	3400578
F3 (C16-C34 Hydrocarbons)	mg/L	<0.1	0.1	3400578
F4 (C34-C50 Hydrocarbons)	mg/L	<0.1	0.1	3400578
Reached Baseline at C50	mg/L	Yes		3400578
Volatiles				
Benzene	ug/L	210	0.4	3399600
Toluene	ug/L	4.6	0.4	3399600
Ethylbenzene	ug/L	2.0	0.4	3399600
o-Xylene	ug/L	18	0.4	3399600
m & p-Xylene	ug/L	19	0.8	3399600
Xylenes (Total)	ug/L	37	0.8	3399600
F1 (C6-C10) - BTEX	ug/L	870	100	3399600
(C6-C10)	ug/L	1100	100	3399600
Surrogate Recovery (%)				
4-BROMOFLUOROBENZENE (sur.)	%	96		3399600
D4-1,2-DICHLOROETHANE (sur.)	%	97		3399600
D8-TOLUENE (sur.)	%	98		3399600
O-TERPHENYL (sur.)	%	71		3400578

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Maxxam Analytics - Partial/Rush Results

REGULATED METALS (CCME/AT1) - DISSOLVED

Maxxam ID		Q61818	Q61819	Q61820	Q61821		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02		
COC Number		80724	80724	80724	80724		
	Units	**04-09-3M**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Low Level Elements							
Dissolved Cadmium (Cd)	ug/L	0.11	<0.05	0.12	0.32	0.05	3399124
Elements							
Dissolved Aluminum (Al)	mg/L	<0.01	0.02	0.06	<0.01	0.01	3400170
Dissolved Antimony (Sb)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Arsenic (As)	mg/L	0.006	<0.002	<0.002	0.005	0.002	3400170
Dissolved Barium (Ba)	mg/L	0.04	0.04	0.04	0.09	0.01	3400906
Dissolved Beryllium (Be)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Boron (B)	mg/L	0.39	0.31	0.37	0.55	0.02	3400906
Dissolved Calcium (Ca)	mg/L	84	140	210	140	0.3	3400906
Dissolved Chromium (Cr)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Cobalt (Co)	mg/L	0.004	<0.003	<0.003	0.006	0.003	3400170
Dissolved Copper (Cu)	mg/L	0.003	<0.002	0.003	<0.002	0.002	3400170
Dissolved Iron (Fe)	mg/L	0.26	0.24	0.36	0.97	0.06	3400906
Dissolved Lead (Pb)	mg/L	0.018	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Lithium (Li)	mg/L	<0.02	0.03	0.04	0.05	0.02	3400906
Dissolved Magnesium (Mg)	mg/L	67	130	150	200	0.2	3400906
Dissolved Manganese (Mn)	mg/L	0.17	0.051	0.069	0.26	0.004	3400906
Dissolved Molybdenum (Mo)	mg/L	0.025	0.003	0.005	0.040	0.002	3400170
Dissolved Nickel (Ni)	mg/L	0.011	<0.005	0.006	0.010	0.005	3400170
Dissolved Phosphorus (P)	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	3400906
Dissolved Potassium (K)	mg/L	15	20	20	27	0.3	3400906
Dissolved Selenium (Se)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Silicon (Si)	mg/L	3.8	1.6	4.3	5.2	0.1	3400906
Dissolved Silver (Ag)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	3400170
Dissolved Sodium (Na)	mg/L	24	310	200	250	0.5	3400906
Dissolved Strontium (Sr)	mg/L	0.15	0.32	0.50	0.31	0.02	3400906
Dissolved Sulphur (S)	mg/L	70	190	250	260	0.2	3400906
Dissolved Thallium (Tl)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Tin (Sn)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Titanium (Ti)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Uranium (U)	mg/L	0.011	0.006	0.016	0.032	0.001	3400170
Dissolved Vanadium (V)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Zinc (Zn)	mg/L	<0.03	<0.03	0.28	<0.03	0.03	3400170

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Maxxam Analytics - Partial/Rush Results

GLYCOLS BY GC-FID (WATER)

Maxxam ID		Q61822		
Sampling Date		2009/09/02		
COC Number		80724		
	Units	**2-09-MW4**	**RDL**	**QC Batch**
Glycols				
Ethylene Glycol	mg/L	<10	10	3402945
Diethylene Glycol	mg/L	<10	10	3402945
Triethylene Glycol	mg/L	<10	10	3402945
Tetraethylene Glycol	mg/L	<10	10	3402945
Propylene Glycol	mg/L	<10	10	3402945
Surrogate Recovery (%)				
Methyl Sulfone (sur.)	%	79		3402945

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Maxxam Analytics - Partial/Rush Results

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q61818	Q61819	Q61820	Q61821		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02		
COC Number		80724	80724	80724	80724		
	Units	**04-09-3M**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Polycyclic Aromatics							
Benzo[a]pyrene equivalency	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	3399129
Acenaphthene	ug/L	0.17	<0.10	<0.10	<0.10	0.10	3400603
Acenaphthylene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Acridine	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	3400603
Anthracene	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	3400603
Benzo(a)anthracene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Benzo(b&j)fluoranthene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Benzo(k)fluoranthene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Benzo(g,h,i)perylene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Benzo(c)phenanthrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	3400603
Benzo(a)pyrene	ug/L	<0.0075	<0.0075	<0.0075	<0.0075	0.0075	3400603
Benzo[e]pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	3400603
Chrysene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Dibenz(a,h)anthracene	ug/L	<0.0075	<0.0075	<0.0075	<0.0075	0.0075	3400603
Dibenzo(a,e)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Dibenzo(a,h)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Dibenzo(a,i)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Dibenzo(a,l)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Fluoranthene	ug/L	0.052	<0.040	<0.040	<0.040	0.040	3400603
Fluorene	ug/L	0.53	<0.050	<0.050	<0.050	0.050	3400603
Indeno(1,2,3-cd)pyrene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
2-Methylnaphthalene	ug/L	20	<0.10	<0.10	0.59	0.10	3400603
Naphthalene	ug/L	14	<0.10	<0.10	0.78	0.10	3400603
Phenanthrene	ug/L	0.47	<0.050	<0.050	<0.050	0.050	3400603
Perylene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	3400603
Pyrene	ug/L	0.038	<0.020	<0.020	<0.020	0.020	3400603
Quinoline	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	3400603
Surrogate Recovery (%)							
D10-ANTHRACENE (sur.)	%	66	51	53	54		3400603
D12-BENZO(A)PYRENE (sur.)	%	46	33	34	34		3400603
D8-ACENAPHTHYLENE (sur.)	%	53	40	39	40		3400603
TERPHENYL-D14 (sur.)	%	61	46	47	48		3400603

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		Q61818	Q61819	Q61820	Q61821		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02		
COC Number		80724	80724	80724	80724		
	Units	**04-09-3M**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Low Level Elements							
Dissolved Mercury (Hg)	ug/L	0.006	0.008	0.008	0.008	0.001	3406740

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Maxxam Analytics - Partial/Rush Results

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q61818		Q61819	Q61820		
Sampling Date		2009/09/02		2009/09/02	2009/09/02		
COC Number		80724		80724	80724		
	Units	**04-09-3M**	**RDL**	**4-09-SW1**	**4-09-2M**	**RDL**	**QC Batch**
Volatiles							
Total Trihalomethanes	ug/L	<2	2	<2	<2	2	3399130
Bromodichloromethane	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Bromoform	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Bromomethane	ug/L	<2	2	<2	<2	2	3411227
Carbon tetrachloride	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Chlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Chlorodibromomethane	ug/L	<1	1	<1	<1	1	3411227
Chloroethane	ug/L	<1	1	<1	<1	1	3411227
Chloroform	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Chloromethane	ug/L	<2	2	<2	<2	2	3411227
1,2-dibromoethane	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
1,2-dichlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
1,3-dichlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
1,4-dichlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
1,1-dichloroethane	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
1,2-dichloroethane	ug/L	6.4	0.5	<0.5	<0.5	0.5	3411227
1,1-dichloroethene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
cis-1,2-dichloroethene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
trans-1,2-dichloroethene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Dichloromethane	ug/L	<2	2	<2	<2	2	3411227
1,2-dichloropropane	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
cis-1,3-dichloropropene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
trans-1,3-dichloropropene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Methyl methacrylate	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Methyl-tert-butylether (MTBE)	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Styrene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
1,1,1,2-tetrachloroethane	ug/L	<2	2	<2	<2	2	3411227
1,1,2,2-tetrachloroethane	ug/L	<2	2	<2	<2	2	3411227
Tetrachloroethene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
1,2,3-trichlorobenzene	ug/L	<1	1	<1	<1	1	3411227
1,2,4-trichlorobenzene	ug/L	<1	1	<1	<1	1	3411227
1,3,5-trichlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
1,1,1-trichloroethane	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Maxxam Analytics - Partial/Rush Results

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q61818		Q61819	Q61820		
Sampling Date		2009/09/02		2009/09/02	2009/09/02		
COC Number		80724		80724	80724		
	Units	**04-09-3M**	**RDL**	**4-09-SW1**	**4-09-2M**	**RDL**	**QC Batch**
1,1,2-trichloroethane	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Trichloroethene	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Trichlorofluoromethane	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
1,2,4-trimethylbenzene	ug/L	130 (1)	5	<0.5	<0.5	0.5	3411227
1,3,5-trimethylbenzene	ug/L	31	0.5	<0.5	<0.5	0.5	3411227
Vinyl chloride	ug/L	<0.5	0.5	<0.5	<0.5	0.5	3411227
Surrogate Recovery (%)							
4-BROMOFLUOROBENZENE (sur.)	%	101		104	108		3411227
D4-1,2-DICHLOROETHANE (sur.)	%	97		99	103		3411227
D8-TOLUENE (sur.)	%	98		99	100		3411227

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Maxxam Analytics - Partial/Rush Results

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q61821		
Sampling Date		2009/09/02		
COC Number		80724		
	Units	**4-09-1M**	**RDL**	**QC Batch**
Volatiles				
Total Trihalomethanes	ug/L	<2	2	3399130
Bromodichloromethane	ug/L	<0.5	0.5	3411227
Bromoform	ug/L	<0.5	0.5	3411227
Bromomethane	ug/L	<2	2	3411227
Carbon tetrachloride	ug/L	<0.5	0.5	3411227
Chlorobenzene	ug/L	<0.5	0.5	3411227
Chlorodibromomethane	ug/L	<1	1	3411227
Chloroethane	ug/L	<1	1	3411227
Chloroform	ug/L	<0.5	0.5	3411227
Chloromethane	ug/L	<2	2	3411227
1,2-dibromoethane	ug/L	<0.5	0.5	3411227
1,2-dichlorobenzene	ug/L	<0.5	0.5	3411227
1,3-dichlorobenzene	ug/L	<0.5	0.5	3411227
1,4-dichlorobenzene	ug/L	<0.5	0.5	3411227
1,1-dichloroethane	ug/L	<0.5	0.5	3411227
1,2-dichloroethane	ug/L	1.7	0.5	3411227
1,1-dichloroethene	ug/L	<0.5	0.5	3411227
cis-1,2-dichloroethene	ug/L	<0.5	0.5	3411227
trans-1,2-dichloroethene	ug/L	<0.5	0.5	3411227
Dichloromethane	ug/L	<2	2	3411227
1,2-dichloropropane	ug/L	<0.5	0.5	3411227
cis-1,3-dichloropropene	ug/L	<0.5	0.5	3411227
trans-1,3-dichloropropene	ug/L	<0.5	0.5	3411227
Methyl methacrylate	ug/L	<0.5	0.5	3411227
Methyl-tert-butylether (MTBE)	ug/L	<0.5	0.5	3411227
Styrene	ug/L	<0.5	0.5	3411227
1,1,1,2-tetrachloroethane	ug/L	<2	2	3411227
1,1,2,2-tetrachloroethane	ug/L	<2	2	3411227
Tetrachloroethene	ug/L	<0.5	0.5	3411227
1,2,3-trichlorobenzene	ug/L	<1	1	3411227
1,2,4-trichlorobenzene	ug/L	<1	1	3411227
1,3,5-trichlorobenzene	ug/L	<0.5	0.5	3411227
1,1,1-trichloroethane	ug/L	<0.5	0.5	3411227

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q61821		
Sampling Date		2009/09/02		
COC Number		80724		
	Units	**4-09-1M**	**RDL**	**QC Batch**
1,1,2-trichloroethane	ug/L	<0.5	0.5	3411227
Trichloroethene	ug/L	<0.5	0.5	3411227
Trichlorofluoromethane	ug/L	<0.5	0.5	3411227
1,2,4-trimethylbenzene	ug/L	23	0.5	3411227
1,3,5-trimethylbenzene	ug/L	10	0.5	3411227
Vinyl chloride	ug/L	<0.5	0.5	3411227
Surrogate Recovery (%)				
4-BROMOFLUOROBENZENE (sur.)	%	102		3411227
D4-1,2-DICHLOROETHANE (sur.)	%	96		3411227
D8-TOLUENE (sur.)	%	101		3411227

RDL = Reportable Detection Limit

Maxxam Analytics - Partial/Rush Results

Maxxam Job #: A948579
Report Date: 2009/09/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Maxxam Analytics - Partial/Rush Results

Package 1	2.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

AT1 BTEX AND F1-F4 IN WATER (WATER) Comments

Sample Q61818-02 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to dilution to bring analyte within the calibrated range.

REGULATED METALS (CCME/AT1) - DISSOLVED Comments

Sample Q61818-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample Q61819-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample Q61820-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample Q61821-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Results relate only to the items tested.

FRANZ ENVIRONMENTAL INC.
Attention: James Smith
Client Project #: 1748-0901, CAMBRIDGE BAY
P.O. #:
Site Reference: CAMBRIDGE BAY

Quality Assurance Report

Maxxam Job Number: CA948579

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3399600	RSA	Matrix Spike						
		[Q61819-02]	4-BROMOFLUOROBENZENE (sur.)	2009/09/06		97	%	70 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2009/09/06		100	%	70 - 130
			D8-TOLUENE (sur.)	2009/09/06		96	%	70 - 130
			Benzene	2009/09/06		109	%	70 - 130
			Toluene	2009/09/06		110	%	70 - 130
			Ethylbenzene	2009/09/06		108	%	70 - 130
			o-Xylene	2009/09/06		110	%	70 - 130
			m & p-Xylene	2009/09/06		108	%	70 - 130
		Spiked Blank	4-BROMOFLUOROBENZENE (sur.)	2009/09/06		99	%	70 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2009/09/06		100	%	70 - 130
			D8-TOLUENE (sur.)	2009/09/06		95	%	70 - 130
			Benzene	2009/09/06		105	%	70 - 130
			Toluene	2009/09/06		105	%	70 - 130
			Ethylbenzene	2009/09/06		103	%	70 - 130
			o-Xylene	2009/09/06		107	%	70 - 130
			m & p-Xylene	2009/09/06		105	%	70 - 130
			(C6-C10)	2009/09/06		95	%	70 - 130
		Method Blank	4-BROMOFLUOROBENZENE (sur.)	2009/09/06		94	%	70 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2009/09/06		96	%	70 - 130
			D8-TOLUENE (sur.)	2009/09/06		97	%	70 - 130
			Benzene	2009/09/06	<0.4		ug/L	
			Toluene	2009/09/06	<0.4		ug/L	
			Ethylbenzene	2009/09/06	<0.4		ug/L	
			o-Xylene	2009/09/06	<0.4		ug/L	
			m & p-Xylene	2009/09/06	<0.8		ug/L	
			Xylenes (Total)	2009/09/06	<0.8		ug/L	
			F1 (C6-C10) - BTEX	2009/09/06	<100		ug/L	
			(C6-C10)	2009/09/06	<100		ug/L	
		RPD [Q61818-02]	Benzene	2009/09/09	26.5		%	40
			Toluene	2009/09/09	27.0		%	40
			Ethylbenzene	2009/09/09	27.9		%	40
			o-Xylene	2009/09/09	27.2		%	40
			m & p-Xylene	2009/09/09	28.6		%	40
			Xylenes (Total)	2009/09/09	28.2		%	40
			F1 (C6-C10) - BTEX	2009/09/09	NC		%	40
			(C6-C10)	2009/09/09	NC		%	40
3400170	VH2	Matrix Spike	Dissolved Aluminum (Al)	2009/09/09		NC	%	80 - 120
			Dissolved Antimony (Sb)	2009/09/09		113	%	80 - 120
			Dissolved Arsenic (As)	2009/09/09		99	%	80 - 120
			Dissolved Beryllium (Be)	2009/09/09		111	%	80 - 120
			Dissolved Chromium (Cr)	2009/09/09		NC	%	80 - 120
			Dissolved Cobalt (Co)	2009/09/09		95	%	80 - 120
			Dissolved Copper (Cu)	2009/09/09		91	%	80 - 120
			Dissolved Lead (Pb)	2009/09/09		92	%	80 - 120
			Dissolved Molybdenum (Mo)	2009/09/09		99	%	80 - 120
			Dissolved Nickel (Ni)	2009/09/09		80	%	80 - 120
			Dissolved Selenium (Se)	2009/09/09		101	%	80 - 120
			Dissolved Silver (Ag)	2009/09/09		99	%	80 - 120
			Dissolved Thallium (Tl)	2009/09/09		91	%	80 - 120
			Dissolved Tin (Sn)	2009/09/09		106	%	80 - 120
			Dissolved Titanium (Ti)	2009/09/09		90	%	80 - 120
			Dissolved Uranium (U)	2009/09/09		NC	%	80 - 120
			Dissolved Vanadium (V)	2009/09/09		90	%	80 - 120
			Dissolved Zinc (Zn)	2009/09/09		96	%	80 - 120

Maxxam Analytics - Partial/Rush Results

FRANZ ENVIRONMENTAL INC.
Attention: James Smith
Client Project #: 1748-0901, CAMBRIDGE BAY
P.O. #:
Site Reference: CAMBRIDGE BAY

Quality Assurance Report (Continued)

Maxxam Job Number: CA948579

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3400170	VH2	Spiked Blank	Dissolved Aluminum (Al)	2009/09/09		95	%	80 - 120
			Dissolved Antimony (Sb)	2009/09/09		97	%	80 - 120
			Dissolved Arsenic (As)	2009/09/09		94	%	80 - 108
			Dissolved Beryllium (Be)	2009/09/09		96	%	80 - 120
			Dissolved Chromium (Cr)	2009/09/09		94	%	80 - 120
			Dissolved Cobalt (Co)	2009/09/09		101	%	80 - 120
			Dissolved Copper (Cu)	2009/09/09		96	%	81 - 114
			Dissolved Lead (Pb)	2009/09/09		96	%	82 - 112
			Dissolved Molybdenum (Mo)	2009/09/09		96	%	80 - 106
			Dissolved Nickel (Ni)	2009/09/09		95	%	82 - 112
			Dissolved Selenium (Se)	2009/09/09		96	%	81 - 120
			Dissolved Silver (Ag)	2009/09/09		99	%	80 - 117
			Dissolved Thallium (Tl)	2009/09/09		96	%	80 - 120
			Dissolved Tin (Sn)	2009/09/09		97	%	80 - 112
			Dissolved Titanium (Ti)	2009/09/09		91	%	80 - 110
			Dissolved Uranium (U)	2009/09/09		98	%	80 - 114
			Dissolved Vanadium (V)	2009/09/09		95	%	80 - 119
			Dissolved Zinc (Zn)	2009/09/09		97	%	80 - 120
		Method Blank	Dissolved Aluminum (Al)	2009/09/09	<0.001		mg/L	
			Dissolved Antimony (Sb)	2009/09/09	<0.0002		mg/L	
			Dissolved Arsenic (As)	2009/09/09	<0.0002		mg/L	
			Dissolved Beryllium (Be)	2009/09/09	<0.001		mg/L	
			Dissolved Chromium (Cr)	2009/09/09	<0.001		mg/L	
			Dissolved Cobalt (Co)	2009/09/09	<0.0003		mg/L	
			Dissolved Copper (Cu)	2009/09/09	<0.0002		mg/L	
			Dissolved Lead (Pb)	2009/09/09	<0.0002		mg/L	
			Dissolved Molybdenum (Mo)	2009/09/09	<0.0002		mg/L	
			Dissolved Nickel (Ni)	2009/09/09	<0.0005		mg/L	
			Dissolved Selenium (Se)	2009/09/09	<0.0002		mg/L	
			Dissolved Silver (Ag)	2009/09/09	<0.0001		mg/L	
			Dissolved Thallium (Tl)	2009/09/09	<0.0002		mg/L	
			Dissolved Tin (Sn)	2009/09/09	0.001, RDL=0.001		mg/L	
			Dissolved Titanium (Ti)	2009/09/09	<0.001		mg/L	
			Dissolved Uranium (U)	2009/09/09	<0.0001		mg/L	
			Dissolved Vanadium (V)	2009/09/09	<0.001		mg/L	
			Dissolved Zinc (Zn)	2009/09/09	<0.003		mg/L	
		RPD	Dissolved Aluminum (Al)	2009/09/09	NC		%	20
			Dissolved Antimony (Sb)	2009/09/09	NC		%	20
			Dissolved Arsenic (As)	2009/09/09	NC		%	20
			Dissolved Beryllium (Be)	2009/09/09	NC		%	20
			Dissolved Chromium (Cr)	2009/09/09	NC		%	20
			Dissolved Cobalt (Co)	2009/09/09	NC		%	20
			Dissolved Copper (Cu)	2009/09/09	NC		%	20
			Dissolved Lead (Pb)	2009/09/09	NC		%	20
			Dissolved Molybdenum (Mo)	2009/09/09	NC		%	20
			Dissolved Nickel (Ni)	2009/09/09	NC		%	20
			Dissolved Selenium (Se)	2009/09/09	NC		%	20
			Dissolved Silver (Ag)	2009/09/09	NC		%	20
			Dissolved Thallium (Tl)	2009/09/09	NC		%	20
			Dissolved Tin (Sn)	2009/09/09	NC		%	20
			Dissolved Titanium (Ti)	2009/09/09	NC		%	20
			Dissolved Uranium (U)	2009/09/09	5.5		%	20
			Dissolved Vanadium (V)	2009/09/09	NC		%	20
			Dissolved Zinc (Zn)	2009/09/09	NC		%	20
3400578	LSH	Matrix Spike [Q61818-02]	F2 (C10-C16 Hydrocarbons)	2009/09/08		126	%	70 - 130

Maxxam Analytics - Partial/Rush Results

FRANZ ENVIRONMENTAL INC.
Attention: James Smith
Client Project #: 1748-0901, CAMBRIDGE BAY
P.O. #:
Site Reference: CAMBRIDGE BAY

Quality Assurance Report (Continued)

Maxxam Job Number: CA948579

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3400578	LSH	Matrix Spike						
		[Q61818-02]	F3 (C16-C34 Hydrocarbons)	2009/09/08		91	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2009/09/08		99	%	70 - 130
			O-TERPHENYL (sur.)	2009/09/08		82	%	50 - 130
		Spiked Blank	F2 (C10-C16 Hydrocarbons)	2009/09/08		96	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2009/09/08		100	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2009/09/08		118	%	70 - 130
			O-TERPHENYL (sur.)	2009/09/08		99	%	50 - 130
		Method Blank	F2 (C10-C16 Hydrocarbons)	2009/09/08	<0.1		mg/L	
			F3 (C16-C34 Hydrocarbons)	2009/09/08	<0.1		mg/L	
			F4 (C34-C50 Hydrocarbons)	2009/09/08	<0.1		mg/L	
			O-TERPHENYL (sur.)	2009/09/08		101	%	50 - 130
		RPD	F2 (C10-C16 Hydrocarbons)	2009/09/09	NC		%	40
			F3 (C16-C34 Hydrocarbons)	2009/09/09	NC		%	40
			F4 (C34-C50 Hydrocarbons)	2009/09/09	NC		%	40
3400603	SJ1	Matrix Spike	D10-ANTHRACENE (sur.)	2009/09/10		61	%	30 - 130
			D12-BENZO(A)PYRENE (sur.)	2009/09/10		50	%	30 - 130
			D8-ACENAPHTHYLENE (sur.)	2009/09/10		48	%	30 - 130
			TERPHENYL-D14 (sur.)	2009/09/10		59	%	30 - 130
			Acenaphthene	2009/09/10		68	%	30 - 130
			Acenaphthylene	2009/09/10		71	%	30 - 130
			Acridine	2009/09/10		52	%	30 - 130
			Anthracene	2009/09/10		36	%	30 - 130
			Fluoranthene	2009/09/10		33	%	30 - 130
			Fluorene	2009/09/10		64	%	30 - 130
			2-Methylnaphthalene	2009/09/10		NC	%	30 - 130
			Naphthalene	2009/09/10		NC	%	30 - 130
			Phenanthrene	2009/09/10		57	%	30 - 130
			Pyrene	2009/09/10		31	%	30 - 130
			Quinoline	2009/09/10		127	%	30 - 130
		Spiked Blank	D10-ANTHRACENE (sur.)	2009/09/10		111	%	30 - 130
			D12-BENZO(A)PYRENE (sur.)	2009/09/10		88	%	30 - 130
			D8-ACENAPHTHYLENE (sur.)	2009/09/10		98	%	30 - 130
			TERPHENYL-D14 (sur.)	2009/09/10		102	%	30 - 130
			Acenaphthene	2009/09/10		100	%	30 - 130
			Acenaphthylene	2009/09/10		95	%	30 - 130
			Acridine	2009/09/10		74	%	30 - 130
			Anthracene	2009/09/10		88	%	30 - 130
			Benzo(a)anthracene	2009/09/10		79	%	30 - 130
			Benzo(b&j)fluoranthene	2009/09/10		75	%	30 - 130
			Benzo(k)fluoranthene	2009/09/10		90	%	30 - 130
			Benzo(g,h,i)perylene	2009/09/10		101	%	30 - 130
			Benzo(c)phenanthrene	2009/09/10		86	%	30 - 130
			Benzo(a)pyrene	2009/09/10		81	%	30 - 130
			Benzo[e]pyrene	2009/09/10		81	%	30 - 130
			Chrysene	2009/09/10		95	%	30 - 130
			Dibenz(a,h)anthracene	2009/09/10		117	%	30 - 130
			Dibenzo(a,e)pyrene	2009/09/10		96	%	30 - 130
			Dibenzo(a,h)pyrene	2009/09/10		127	%	30 - 130
			Dibenzo(a,i)pyrene	2009/09/10		75	%	30 - 130
			Dibenzo(a,l)pyrene	2009/09/10		96	%	30 - 130
			Fluoranthene	2009/09/10		94	%	30 - 130
			Fluorene	2009/09/10		98	%	30 - 130
			Indeno(1,2,3-cd)pyrene	2009/09/10		97	%	30 - 130
			2-Methylnaphthalene	2009/09/10		93	%	30 - 130

Maxxam Analytics – Partial/Rush Results

FRANZ ENVIRONMENTAL INC.
Attention: James Smith
Client Project #: 1748-0901, CAMBRIDGE BAY
P.O. #:
Site Reference: CAMBRIDGE BAY

Quality Assurance Report (Continued)

Maxxam Job Number: CA948579

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3400603 SJ1	Spiked Blank	Naphthalene	2009/09/10		99	%	30 - 130
		Phenanthrene	2009/09/10		99	%	30 - 130
		Perylene	2009/09/10		101	%	30 - 130
		Pyrene	2009/09/10		93	%	30 - 130
		Quinoline	2009/09/10		85	%	30 - 130
	Method Blank	D10-ANTHRACENE (sur.)	2009/09/10		94	%	30 - 130
		D12-BENZO(A)PYRENE (sur.)	2009/09/10		67	%	30 - 130
		D8-ACENAPHTHYLENE (sur.)	2009/09/10		86	%	30 - 130
		TERPHENYL-D14 (sur.)	2009/09/10		90	%	30 - 130
		Acenaphthene	2009/09/10	<0.10		ug/L	
		Acenaphthylene	2009/09/10	<0.10		ug/L	
		Acridine	2009/09/10	<0.20		ug/L	
		Anthracene	2009/09/10	<0.010		ug/L	
		Benzo(a)anthracene	2009/09/10	<0.0085		ug/L	
		Benzo(b&j)fluoranthene	2009/09/10	<0.0085		ug/L	
		Benzo(k)fluoranthene	2009/09/10	<0.0085		ug/L	
		Benzo(g,h,i)perylene	2009/09/10	<0.0085		ug/L	
		Benzo(c)phenanthrene	2009/09/10	<0.050		ug/L	
		Benzo(a)pyrene	2009/09/10	<0.0075		ug/L	
		Benzo[e]pyrene	2009/09/10	<0.050		ug/L	
		Chrysene	2009/09/10	<0.0085		ug/L	
		Dibenz(a,h)anthracene	2009/09/10	<0.0075		ug/L	
		Dibenzo(a,e)pyrene	2009/09/10	<0.10		ug/L	
		Dibenzo(a,h)pyrene	2009/09/10	<0.10		ug/L	
		Dibenzo(a,i)pyrene	2009/09/10	<0.10		ug/L	
		Dibenzo(a,l)pyrene	2009/09/10	<0.10		ug/L	
		Fluoranthene	2009/09/10	<0.040		ug/L	
		Fluorene	2009/09/10	<0.050		ug/L	
		Indeno(1,2,3-cd)pyrene	2009/09/10	<0.0085		ug/L	
		2-Methylnaphthalene	2009/09/10	<0.10		ug/L	
		Naphthalene	2009/09/10	<0.10		ug/L	
		Phenanthrene	2009/09/10	<0.050		ug/L	
		Perylene	2009/09/10	<0.050		ug/L	
		Pyrene	2009/09/10	<0.020		ug/L	
		Quinoline	2009/09/10	<0.20		ug/L	
	RPD	Acenaphthene	2009/09/11	NC		%	40
		Acenaphthylene	2009/09/11	NC		%	40
		Acridine	2009/09/11	NC		%	40
		Anthracene	2009/09/11	NC		%	40
		Benzo(a)anthracene	2009/09/11	NC		%	40
		Benzo(b&j)fluoranthene	2009/09/11	NC		%	40
		Benzo(k)fluoranthene	2009/09/11	NC		%	40
		Benzo(g,h,i)perylene	2009/09/11	NC		%	40
		Benzo(c)phenanthrene	2009/09/11	NC		%	40
		Benzo(a)pyrene	2009/09/11	NC		%	40
		Benzo[e]pyrene	2009/09/11	NC		%	40
		Chrysene	2009/09/11	NC		%	40
		Dibenz(a,h)anthracene	2009/09/11	NC		%	40
		Dibenzo(a,e)pyrene	2009/09/11	NC		%	40
		Dibenzo(a,h)pyrene	2009/09/11	NC		%	40
		Dibenzo(a,i)pyrene	2009/09/11	NC		%	40
		Dibenzo(a,l)pyrene	2009/09/11	NC		%	40
		Fluoranthene	2009/09/11	NC		%	40
		Fluorene	2009/09/11	NC		%	40
		Indeno(1,2,3-cd)pyrene	2009/09/11	NC		%	40

Maxxam Analytics - Partial/Rush Results

FRANZ ENVIRONMENTAL INC.
Attention: James Smith
Client Project #: 1748-0901, CAMBRIDGE BAY
P.O. #:
Site Reference: CAMBRIDGE BAY

Quality Assurance Report (Continued)

Maxxam Job Number: CA948579

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3400603	SJ1	RPD	2-Methylnaphthalene	2009/09/11	6.3		%	40
			Naphthalene	2009/09/11	7.4		%	40
			Phenanthrene	2009/09/11	NC		%	40
			Perylene	2009/09/11	NC		%	40
			Pyrene	2009/09/11	NC		%	40
			Quinoline	2009/09/11	NC		%	40
3400906	FL1	Matrix Spike	Dissolved Barium (Ba)	2009/09/10		101	%	80 - 120
			Dissolved Boron (B)	2009/09/10		107	%	80 - 120
			Dissolved Calcium (Ca)	2009/09/10		NC	%	80 - 120
			Dissolved Iron (Fe)	2009/09/10		NC	%	80 - 120
			Dissolved Lithium (Li)	2009/09/10		118	%	80 - 120
			Dissolved Magnesium (Mg)	2009/09/10		NC	%	80 - 120
			Dissolved Manganese (Mn)	2009/09/10		NC	%	80 - 120
			Dissolved Phosphorus (P)	2009/09/10		108	%	80 - 120
			Dissolved Potassium (K)	2009/09/10		115	%	80 - 120
			Dissolved Silicon (Si)	2009/09/10		NC	%	80 - 120
			Dissolved Sodium (Na)	2009/09/10		NC	%	80 - 120
			Dissolved Strontium (Sr)	2009/09/10		NC	%	80 - 120
		Spiked Blank	Dissolved Barium (Ba)	2009/09/09		103	%	80 - 110
			Dissolved Boron (B)	2009/09/09		108	%	84 - 117
			Dissolved Calcium (Ca)	2009/09/09		105	%	88 - 115
			Dissolved Iron (Fe)	2009/09/09		98	%	81 - 111
			Dissolved Lithium (Li)	2009/09/09		106	%	82 - 117
			Dissolved Magnesium (Mg)	2009/09/09		104	%	87 - 117
			Dissolved Manganese (Mn)	2009/09/09		103	%	85 - 110
			Dissolved Phosphorus (P)	2009/09/09		102	%	87 - 116
			Dissolved Potassium (K)	2009/09/09		97	%	85 - 117
			Dissolved Silicon (Si)	2009/09/09		97	%	80 - 120
			Dissolved Sodium (Na)	2009/09/09		89	%	84 - 118
			Dissolved Strontium (Sr)	2009/09/09		104	%	83 - 113
		Method Blank	Dissolved Barium (Ba)	2009/09/09	<0.01		mg/L	
			Dissolved Boron (B)	2009/09/09	<0.02		mg/L	
			Dissolved Calcium (Ca)	2009/09/09	<0.3		mg/L	
			Dissolved Iron (Fe)	2009/09/09	<0.06		mg/L	
			Dissolved Lithium (Li)	2009/09/09	<0.02		mg/L	
			Dissolved Magnesium (Mg)	2009/09/09	<0.2		mg/L	
			Dissolved Manganese (Mn)	2009/09/09	<0.004		mg/L	
			Dissolved Phosphorus (P)	2009/09/09	<0.1		mg/L	
			Dissolved Potassium (K)	2009/09/09	<0.3		mg/L	
			Dissolved Silicon (Si)	2009/09/09	<0.1		mg/L	
			Dissolved Sodium (Na)	2009/09/09	<0.5		mg/L	
			Dissolved Strontium (Sr)	2009/09/09	<0.02		mg/L	
			Dissolved Sulphur (S)	2009/09/09	<0.2		mg/L	
		RPD	Dissolved Barium (Ba)	2009/09/09	NC		%	20
			Dissolved Boron (B)	2009/09/09	7.1		%	20
			Dissolved Calcium (Ca)	2009/09/09	0.08		%	20
			Dissolved Iron (Fe)	2009/09/09	3.0		%	20
			Dissolved Lithium (Li)	2009/09/09	16.3		%	20
			Dissolved Magnesium (Mg)	2009/09/09	7.8		%	20
			Dissolved Manganese (Mn)	2009/09/09	1.9		%	20
			Dissolved Phosphorus (P)	2009/09/09	NC		%	20
			Dissolved Potassium (K)	2009/09/09	13.1		%	20
			Dissolved Silicon (Si)	2009/09/09	4.6		%	20
			Dissolved Sodium (Na)	2009/09/09	14.8		%	20
			Dissolved Strontium (Sr)	2009/09/09	7.6		%	20

Maxxam Analytics – Partial/Rush Results

FRANZ ENVIRONMENTAL INC.
Attention: James Smith
Client Project #: 1748-0901, CAMBRIDGE BAY
P.O. #:
Site Reference: CAMBRIDGE BAY

Quality Assurance Report (Continued)

Maxxam Job Number: CA948579

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3400906	FL1	RPD	Dissolved Sulphur (S)	2009/09/09	6.7		%	20
3402945	LQ	Matrix Spike	Methyl Sulfone (sur.)	2009/09/10		85	%	70 - 130
			Ethylene Glycol	2009/09/10		94	%	70 - 130
			Diethylene Glycol	2009/09/10		95	%	70 - 130
			Triethylene Glycol	2009/09/10		105	%	70 - 130
			Tetraethylene Glycol	2009/09/10		115	%	70 - 130
			Propylene Glycol	2009/09/10		93	%	70 - 130
		Spiked Blank	Methyl Sulfone (sur.)	2009/09/10		90	%	70 - 130
			Ethylene Glycol	2009/09/10		95	%	70 - 130
			Diethylene Glycol	2009/09/10		97	%	70 - 130
			Triethylene Glycol	2009/09/10		105	%	70 - 130
			Tetraethylene Glycol	2009/09/10		115	%	70 - 130
			Propylene Glycol	2009/09/10		96	%	70 - 130
		Method Blank	Methyl Sulfone (sur.)	2009/09/10		99	%	70 - 130
			Ethylene Glycol	2009/09/10	<10		mg/L	
			Diethylene Glycol	2009/09/10	<10		mg/L	
			Triethylene Glycol	2009/09/10	<10		mg/L	
			Tetraethylene Glycol	2009/09/10	<10		mg/L	
			Propylene Glycol	2009/09/10	<10		mg/L	
		RPD	Ethylene Glycol	2009/09/10	NC		%	20
			Diethylene Glycol	2009/09/10	NC		%	20
			Triethylene Glycol	2009/09/10	NC		%	20
			Tetraethylene Glycol	2009/09/10	NC		%	20
			Propylene Glycol	2009/09/10	NC		%	20
3406740	VGG	Matrix Spike	Dissolved Mercury (Hg)	2009/09/11		105	%	80 - 120
		Spiked Blank	Dissolved Mercury (Hg)	2009/09/11		117	%	80 - 120
		Method Blank	Dissolved Mercury (Hg)	2009/09/11	0.001, RDL=0.001		ug/L	
		RPD	Dissolved Mercury (Hg)	2009/09/11	NC		%	20
3411227	JT7	Matrix Spike	4-BROMOFLUOROBENZENE (sur.)	2009/09/11		100	%	70 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2009/09/11		102	%	70 - 130
			D8-TOLUENE (sur.)	2009/09/11		99	%	70 - 130
			Bromodichloromethane	2009/09/11		106	%	70 - 130
			Bromoform	2009/09/11		104	%	70 - 130
			Bromomethane	2009/09/11		95	%	70 - 130
			Carbon tetrachloride	2009/09/11		104	%	70 - 130
			Chlorobenzene	2009/09/11		97	%	70 - 130
			Chlorodibromomethane	2009/09/11		102	%	70 - 130
			Chloroethane	2009/09/11		92	%	70 - 130
			Chloroform	2009/09/11		100	%	70 - 130
			Chloromethane	2009/09/11		114	%	70 - 130
			1,2-dibromoethane	2009/09/11		101	%	70 - 130
			1,2-dichlorobenzene	2009/09/11		99	%	70 - 130
			1,3-dichlorobenzene	2009/09/11		98	%	70 - 130
			1,4-dichlorobenzene	2009/09/11		97	%	70 - 130
			1,1-dichloroethane	2009/09/11		87	%	70 - 130
			1,2-dichloroethane	2009/09/11		101	%	70 - 130
			1,1-dichloroethene	2009/09/11		99	%	70 - 130
			cis-1,2-dichloroethene	2009/09/11		96	%	70 - 130
			trans-1,2-dichloroethene	2009/09/11		99	%	70 - 130
			Dichloromethane	2009/09/11		96	%	70 - 130
			1,2-dichloropropane	2009/09/11		100	%	70 - 130
			cis-1,3-dichloropropene	2009/09/11		99	%	70 - 130
			trans-1,3-dichloropropene	2009/09/11		102	%	70 - 130
			Methyl methacrylate	2009/09/11		104	%	70 - 130
			Methyl-tert-butylether (MTBE)	2009/09/11		76	%	70 - 130

Maxxam Analytics – Partial/Rush Results

FRANZ ENVIRONMENTAL INC.
Attention: James Smith
Client Project #: 1748-0901, CAMBRIDGE BAY
P.O. #:
Site Reference: CAMBRIDGE BAY

Quality Assurance Report (Continued)

Maxxam Job Number: CA948579

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3411227	JT7	Matrix Spike	Styrene	2009/09/11		99	%	70 - 130
			1,1,1,2-tetrachloroethane	2009/09/11		99	%	70 - 130
			1,1,2,2-tetrachloroethane	2009/09/11		105	%	70 - 130
			Tetrachloroethene	2009/09/11		96	%	70 - 130
			1,2,3-trichlorobenzene	2009/09/11		91	%	70 - 130
			1,2,4-trichlorobenzene	2009/09/11		94	%	70 - 130
			1,3,5-trichlorobenzene	2009/09/11		100	%	70 - 130
			1,1,1-trichloroethane	2009/09/11		95	%	70 - 130
			1,1,2-trichloroethane	2009/09/11		101	%	70 - 130
			Trichloroethene	2009/09/11		NC	%	70 - 130
			Trichlorofluoromethane	2009/09/11		97	%	70 - 130
			1,2,4-trimethylbenzene	2009/09/11		98	%	70 - 130
			1,3,5-trimethylbenzene	2009/09/11		97	%	70 - 130
			Vinyl chloride	2009/09/11		118	%	70 - 130
		Spiked Blank	4-BROMOFLUOROBENZENE (sur.)	2009/09/11		99	%	70 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2009/09/11		103	%	70 - 130
			D8-TOLUENE (sur.)	2009/09/11		98	%	70 - 130
			Bromodichloromethane	2009/09/11		110	%	70 - 130
			Bromoform	2009/09/11		107	%	70 - 130
			Bromomethane	2009/09/11		109	%	70 - 130
			Carbon tetrachloride	2009/09/11		115	%	70 - 130
			Chlorobenzene	2009/09/11		104	%	70 - 130
			Chlorodibromomethane	2009/09/11		107	%	70 - 130
			Chloroethane	2009/09/11		102	%	70 - 130
			Chloroform	2009/09/11		108	%	70 - 130
			Chloromethane	2009/09/11		113	%	70 - 130
			1,2-dibromoethane	2009/09/11		104	%	70 - 130
			1,2-dichlorobenzene	2009/09/11		104	%	70 - 130
			1,3-dichlorobenzene	2009/09/11		104	%	70 - 130
			1,4-dichlorobenzene	2009/09/11		102	%	70 - 130
			1,1-dichloroethane	2009/09/11		95	%	70 - 130
			1,2-dichloroethane	2009/09/11		108	%	70 - 130
			1,1-dichloroethene	2009/09/11		110	%	70 - 130
			cis-1,2-dichloroethene	2009/09/11		107	%	70 - 130
			trans-1,2-dichloroethene	2009/09/11		106	%	70 - 130
			Dichloromethane	2009/09/11		105	%	70 - 130
			1,2-dichloropropane	2009/09/11		106	%	70 - 130
			cis-1,3-dichloropropene	2009/09/11		105	%	70 - 130
			trans-1,3-dichloropropene	2009/09/11		105	%	70 - 130
			Methyl methacrylate	2009/09/11		107	%	70 - 130
			Methyl-tert-butylether (MTBE)	2009/09/11		85	%	70 - 130
			Styrene	2009/09/11		107	%	70 - 130
			1,1,1,2-tetrachloroethane	2009/09/11		105	%	70 - 130
			1,1,2,2-tetrachloroethane	2009/09/11		106	%	70 - 130
			Tetrachloroethene	2009/09/11		95	%	70 - 130
			1,2,3-trichlorobenzene	2009/09/11		92	%	70 - 130
			1,2,4-trichlorobenzene	2009/09/11		97	%	70 - 130
			1,3,5-trichlorobenzene	2009/09/11		108	%	70 - 130
			1,1,1-trichloroethane	2009/09/11		103	%	70 - 130
			1,1,2-trichloroethane	2009/09/11		105	%	70 - 130
			Trichloroethene	2009/09/11		106	%	70 - 130
			Trichlorofluoromethane	2009/09/11		108	%	70 - 130
			1,2,4-trimethylbenzene	2009/09/11		105	%	70 - 130
			1,3,5-trimethylbenzene	2009/09/11		106	%	70 - 130
			Vinyl chloride	2009/09/11		127	%	70 - 130

Maxxam Analytics - Partial/Rush Results

FRANZ ENVIRONMENTAL INC.
Attention: James Smith
Client Project #: 1748-0901, CAMBRIDGE BAY
P.O. #:
Site Reference: CAMBRIDGE BAY

Quality Assurance Report (Continued)

Maxxam Job Number: CA948579

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3411227	JT7	Method Blank	4-BROMOFLUOROBENZENE (sur.)	2009/09/11		106	%	70 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2009/09/11		99	%	70 - 130
			D8-TOLUENE (sur.)	2009/09/11		101	%	70 - 130
			Bromodichloromethane	2009/09/11	<0.5		ug/L	
			Bromoform	2009/09/11	<0.5		ug/L	
			Bromomethane	2009/09/11	<2		ug/L	
			Carbon tetrachloride	2009/09/11	<0.5		ug/L	
			Chlorobenzene	2009/09/11	<0.5		ug/L	
			Chlorodibromomethane	2009/09/11	<1		ug/L	
			Chloroethane	2009/09/11	<1		ug/L	
			Chloroform	2009/09/11	<0.5		ug/L	
			Chloromethane	2009/09/11	<2		ug/L	
			1,2-dibromoethane	2009/09/11	<0.5		ug/L	
			1,2-dichlorobenzene	2009/09/11	<0.5		ug/L	
			1,3-dichlorobenzene	2009/09/11	<0.5		ug/L	
			1,4-dichlorobenzene	2009/09/11	<0.5		ug/L	
			1,1-dichloroethane	2009/09/11	<0.5		ug/L	
			1,2-dichloroethane	2009/09/11	<0.5		ug/L	
			1,1-dichloroethene	2009/09/11	<0.5		ug/L	
			cis-1,2-dichloroethene	2009/09/11	<0.5		ug/L	
			trans-1,2-dichloroethene	2009/09/11	<0.5		ug/L	
			Dichloromethane	2009/09/11	<2		ug/L	
			1,2-dichloropropane	2009/09/11	<0.5		ug/L	
			cis-1,3-dichloropropene	2009/09/11	<0.5		ug/L	
			trans-1,3-dichloropropene	2009/09/11	<0.5		ug/L	
			Methyl methacrylate	2009/09/11	<0.5		ug/L	
			Methyl-tert-butylether (MTBE)	2009/09/11	<0.5		ug/L	
			Styrene	2009/09/11	<0.5		ug/L	
			1,1,1,2-tetrachloroethane	2009/09/11	<2		ug/L	
			1,1,2,2-tetrachloroethane	2009/09/11	<2		ug/L	
			Tetrachloroethene	2009/09/11	<0.5		ug/L	
			1,2,3-trichlorobenzene	2009/09/11	<1		ug/L	
			1,2,4-trichlorobenzene	2009/09/11	<1		ug/L	
			1,3,5-trichlorobenzene	2009/09/11	<0.5		ug/L	
			1,1,1-trichloroethane	2009/09/11	<0.5		ug/L	
			1,1,2-trichloroethane	2009/09/11	<0.5		ug/L	
			Trichloroethene	2009/09/11	<0.5		ug/L	
			Trichlorofluoromethane	2009/09/11	<0.5		ug/L	
			1,2,4-trimethylbenzene	2009/09/11	<0.5		ug/L	
			1,3,5-trimethylbenzene	2009/09/11	<0.5		ug/L	
			Vinyl chloride	2009/09/11	<0.5		ug/L	
		RPD	Bromodichloromethane	2009/09/11	NC		%	40
			Bromoform	2009/09/11	NC		%	40
			Bromomethane	2009/09/11	NC		%	40
			Carbon tetrachloride	2009/09/11	NC		%	40
			Chlorobenzene	2009/09/11	NC		%	40
			Chlorodibromomethane	2009/09/11	NC		%	40
			Chloroethane	2009/09/11	NC		%	40
			Chloroform	2009/09/11	NC		%	40
			Chloromethane	2009/09/11	NC		%	40
			1,2-dibromoethane	2009/09/11	NC		%	40
			1,2-dichlorobenzene	2009/09/11	NC		%	40
			1,3-dichlorobenzene	2009/09/11	NC		%	40
			1,4-dichlorobenzene	2009/09/11	NC		%	40
			1,1-dichloroethane	2009/09/11	NC		%	40

Maxxam Analytics – Partial/Rush Results

FRANZ ENVIRONMENTAL INC.
Attention: James Smith
Client Project #: 1748-0901, CAMBRIDGE BAY
P.O. #:
Site Reference: CAMBRIDGE BAY

Quality Assurance Report (Continued)

Maxxam Job Number: CA948579

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3411227	JT7	RPD	1,2-dichloroethane	2009/09/11	NC		%	40
			1,1-dichloroethene	2009/09/11	NC		%	40
			cis-1,2-dichloroethene	2009/09/11	NC		%	40
			trans-1,2-dichloroethene	2009/09/11	NC		%	40
			Dichloromethane	2009/09/11	NC		%	40
			1,2-dichloropropane	2009/09/11	NC		%	40
			cis-1,3-dichloropropene	2009/09/11	NC		%	40
			trans-1,3-dichloropropene	2009/09/11	NC		%	40
			Methyl methacrylate	2009/09/11	NC		%	40
			Methyl-tert-butylether (MTBE)	2009/09/11	NC		%	40
			Styrene	2009/09/11	NC		%	40
			1,1,1,2-tetrachloroethane	2009/09/11	NC		%	40
			1,1,2,2-tetrachloroethane	2009/09/11	NC		%	40
			Tetrachloroethene	2009/09/11	NC		%	40
			1,2,3-trichlorobenzene	2009/09/11	NC		%	40
			1,2,4-trichlorobenzene	2009/09/11	NC		%	40
			1,3,5-trichlorobenzene	2009/09/11	NC		%	40
			1,1,1-trichloroethane	2009/09/11	NC		%	40
			1,1,2-trichloroethane	2009/09/11	NC		%	40
			Trichloroethene	2009/09/11	NC		%	40
			Trichlorofluoromethane	2009/09/11	NC		%	40
			1,2,4-trimethylbenzene	2009/09/11	NC		%	40
			1,3,5-trimethylbenzene	2009/09/11	NC		%	40
			Vinyl chloride	2009/09/11	NC		%	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics - Partial/Rush Results

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80724 **CHAIN OF CUSTODY**

Page: 1 of 2

Invoice To: Require Report? Yes ☐ No ☒
Company Name: FRANZ ENVIRONMENTAL LTD
Contact Name: LILLIAN ELLIS
Address:
Prov: ONTARIO PC:
Contact #s: Ph: Fax:

Report To:
Jen Keenliside
Franz Environmental Ltd
329 Churchill Ave N Ottawa, ON
Prov: Ontario PC: jkeenliside@franzenvironmental.com
Ph: 613-721-0555 Fax: 613-721-0029

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name: Cambridge Bay
Location: Cambridge Bay
Sampler's Initials: JK, VD, ET

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):
jkeenliside@franzenvironmental.com

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☐ BTEX F1 ☒ VOCs	☐ BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Filtered	Mercury ☐ Total ☒ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): PAH Glycol	*HOLD for 60 Days	# of Containers Submitted
1	4-09-3M	W	Sept 2/09								X	X			X	X			X		12
2	4-09-SW1	W	Sept 2/09								X	X			X	X			X		12
3	4-09-2M	W	Sept 2/09								X	X			X	X			X		12
4	4-09-1M	W	Sept 2/09								X	X			X	X			X		12
5	2-09-MW4	W	Sept 2/09																X		3
6	↳(w/ extra bottle)																				
7																					
8																					
9																					
10																					
11																					
12																					

ARRIVED AT DEPOT
SEP 03 2009
TEMP: 18/18/18

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: A94857

Relinquished By: J. Keenliside Date/Time: Sept 3/09 4:30pm
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	GH 1750	6 6 3	✓

RECEIVED SEP 04 2009 4/9/9 JBS 0700 1/3/4
CUSTODY SEAL YES / NO

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80721 **CHAIN OF CUSTODY**

Page: 2 of 2

Invoice To: Require Report? Yes ☐ No ☒

Company Name: Franz Environmental Ltd
Contact Name: Lillian Ellis
Address:
Prov: Ontario PC: kellis@franzenvironmental.com
Contact #s: Ph: Fax: .com

Report To:
Jen Keenliside
Franz Environmental Ltd
329 Churchill Ave N. Ottawa
Prov: Ontario PC: jkeenliside@
Ph: 613-721-0555 Fax: franzenvironmental.com

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name: Cambridge Bay
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☒ OTHER ~~CWQG~~

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☐ BTEX F1 ☐ VOCs	☐ BTEX F1-F2 ☐ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Filtered	Mercury ☐ Total ☐ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	BG-VG1	VEG	Sept 2/09				X														1
2	1-09-VG1	VEG	Sept 2/09				X														1
3	1-09-VG2	VEG	Sept 2/09				X														1
4	2-09-VG1	VEG	Sept 2/09				X														1
5	2-09-VG2	VEG	Sept 2/09				X														1
6	2-09-VG3	VEG	Sept 2/09				X														1
7	3-09-VG1	VEG	Sept 2/09				X														1
8	3-09-VG2	VEG	Sept 2/09				X														1
9																					
10																					
11																					
12																					

ARRIVED AT DEPOT:
SEP 03 2009
TEMP: 18/16/16

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: A98579

Relinquished By: Jen Keenliside
Sign and Print: J. Keenliside
Date/Time: Sept. 3/09 4:30PM
COMMENTS/SPECIAL INSTRUCTIONS:

JARS USED & NOT SUBMITTED

1750

RECEIVED
SEP 04 2009
JBO 0700

Received By: GH 4/9/9
CUSTODY SEAL ☐ YES ☐ NO

Temperature			Ice
6	6	3	

Your Project #: 1748-0901, CAMBRIDGE BAY
Site: CAMBRIDGE BAY
Your C.O.C. #: 80724, 80721

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2009/09/15

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A948579
Received: 2009/09/05, 7:00

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hexavalent Chromium	8	2009/09/10	2009/09/10	CAL SOP-00056	SM 3500-Cr B
Elements by ICPMS - Soils	8	2009/09/09	2009/09/13	CAL SOP-00191	EPA SW-846 6020A
Moisture	8	N/A	2009/09/10	CAL SOP-00023	McKeague MSSMA 2.411

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS	2	N/A	2009/09/06	CAL SOP-00190	EPA 8260 C / CCME
BTEX/F1 in Water by HS GC/MS	2	N/A	2009/09/09	CAL SOP-00190	EPA 8260 C / CCME
Cadmium - low level CCME - Dissolved	4	N/A	2009/09/10	CAL SOP-00191	EPA SW-846 6020A
CCME Hydrocarbons (F2-F4 in water)	3	2009/09/08	2009/09/09	CAL SOP-00087	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in water)	1	2009/09/09	2009/09/09	CAL SOP-00087	CCME PHC-CWS
Ethylene, Di, Tri & Tetraethylene glycol	1	N/A	2009/09/10	CAL SOP-00093	EPA 8015 D
Mercury - Low Level (Dissolved)	4	2009/09/09	2009/09/11	CAL SOP-00007	EPA 1631
Elements by ICP - Dissolved	4	N/A	2009/09/09	CAL SOP-00192	EPA SW846 6010B
Elements by ICPMS - Dissolved	4	N/A	2009/09/09	CAL SOP-00191	EPA SW-846 6020A
Benzo[a]pyrene Equivalency	4	N/A	2009/09/14	CAL SOP-00165	EPA 8270D
Polycyclic Aromatic Hydrocarbons (2)	1	2009/09/08	2009/09/10	CAL SOP-00165	EPA 8270D
Polycyclic Aromatic Hydrocarbons (2)	3	2009/09/08	2009/09/11	CAL SOP-00165	EPA 8270D
Total Trihalomethanes Calculation	4	N/A	2009/09/14	CAL SOP-00104	EPA 8260C
VOCs in Water by P&T GC/MS (Std List) (1)	3	N/A	2009/09/11	EENVSOP-00003 EENVSOP-00002	EPA 8260C / CCME
VOCs in Water by P&T GC/MS (Std List) (1)	1	N/A	2009/09/12	EENVSOP-00003 EENVSOP-00002	EPA 8260C / CCME

* Results relate only to the items tested.

(1) This test was performed by Maxxam Edmonton Environmental
(2) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.

../2

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Encryption Key

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

LESLEY LEM, Project Manager
Email: lesley.lem@maxxamanalytics.com
Phone# (403) 291-3077

==========

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 CALA have approved this reporting process and electronic report format.

Total cover pages: 2

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		Q61818	Q61818		Q61819	Q61820	Q61821		
Sampling Date		2009/09/02	2009/09/02		2009/09/02	2009/09/02	2009/09/02		
	Units	**04-09-3M**	**04-09-3M Lab-Dup**	**RDL**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Extractable Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	mg/L	0.5		0.1	<0.1	<0.1	1.4	0.1	3400578
F3 (C16-C34 Hydrocarbons)	mg/L	<0.1		0.1	<0.1	<0.1	<0.1	0.1	3400578
F4 (C34-C50 Hydrocarbons)	mg/L	<0.1		0.1	<0.1	<0.1	<0.1	0.1	3400578
Reached Baseline at C50	mg/L	YES			YES	YES	YES		3400578
Surrogate Recovery (%)									
O-TERPHENYL (sur.)	%	78			74	76	71		3400578
Volatiles									
Benzene	ug/L	790	1000	4	<0.4	<0.4	210	0.4	3399600
Toluene	ug/L	1000	1300	4	<0.4	<0.4	4.6	0.4	3399600
Ethylbenzene	ug/L	130	170	4	<0.4	<0.4	2.0	0.4	3399600
o-Xylene	ug/L	180	240	4	<0.4	<0.4	18	0.4	3399600
m & p-Xylene	ug/L	460	610	8	<0.8	<0.8	19	0.8	3399600
Xylenes (Total)	ug/L	640	850	8	<0.8	<0.8	37	0.8	3399600
F1 (C6-C10) - BTEX	ug/L	1600	2300	1000	<100	<100	870	100	3399600
(C6-C10)	ug/L	4200	5600	1000	<100	<100	1100	100	3399600
Surrogate Recovery (%)									
4-BROMOFLUOROBENZENE (sur.)	%	102	100		92	98	96		3399600
D4-1,2-DICHLOROETHANE (sur.)	%	99	96		96	97	97		3399600
D8-TOLUENE (sur.)	%	99	101		96	100	98		3399600

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

REGULATED METALS (CCME/AT1)

Maxxam ID		Q61823	Q61824	Q61825	Q61826	Q61827	Q61828	Q61829	Q61830		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02	2009/09/02	2009/09/02	2009/09/02	2009/09/02		
	Units	**BG-VG1**	**1-09-VG1**	**1-09-VG2**	**2-09-VG1**	**2-09-VG2**	**2-09-VG3**	**3-09-VG1**	**3-09-VG2**	**RDL**	**QC Batch**
Elements											
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	3406689
Total Antimony (Sb)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	1	3412724
Total Arsenic (As)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	1	3412724
Total Barium (Ba)	mg/kg	<10	<10	<10	<10	<10	10	16	<10	10	3412724
Total Beryllium (Be)	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	3412724
Total Cadmium (Cd)	mg/kg	0.2	<0.1	<0.1	0.9	0.3	0.4	<0.1	0.2	0.1	3412724
Total Chromium (Cr)	mg/kg	1	<1	2	<1	1	2	4	<1	1	3412724
Total Cobalt (Co)	mg/kg	1	<1	<1	<1	<1	<1	<1	<1	1	3412724
Total Copper (Cu)	mg/kg	7	<5	<5	6	<5	<5	<5	8	5	3412724
Total Lead (Pb)	mg/kg	<1	<1	<1	<1	<1	<1	5	<1	1	3412724
Total Mercury (Hg)	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	3412724
Total Molybdenum (Mo)	mg/kg	0.8	<0.4	2.6	0.5	1.6	0.9	<0.4	<0.4	0.4	3412724
Total Nickel (Ni)	mg/kg	1	1	1	4	1	2	2	2	1	3412724
Total Selenium (Se)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3412724
Total Silver (Ag)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	1	3412724
Total Thallium (Tl)	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.3	3412724
Total Tin (Sn)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	1	3412724
Total Uranium (U)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	1	3412724
Total Vanadium (V)	mg/kg	2	<1	1	<1	2	3	3	1	1	3412724
Total Zinc (Zn)	mg/kg	51	<10	24	150	19	39	14	160	10	3412724

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

REGULATED METALS (CCME/AT1) - DISSOLVED

Maxxam ID		Q61818	Q61819	Q61820	Q61821		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02		
	Units	**04-09-3M**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Low Level Elements							
Dissolved Cadmium (Cd)	ug/L	0.11	<0.05	0.12	0.32	0.05	3399124
Elements							
Dissolved Aluminum (Al)	mg/L	<0.01	0.02	0.06	<0.01	0.01	3400170
Dissolved Antimony (Sb)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Arsenic (As)	mg/L	0.006	<0.002	<0.002	0.005	0.002	3400170
Dissolved Barium (Ba)	mg/L	0.04	0.04	0.04	0.09	0.01	3400906
Dissolved Beryllium (Be)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Boron (B)	mg/L	0.39	0.31	0.37	0.55	0.02	3400906
Dissolved Calcium (Ca)	mg/L	84	140	210	140	0.3	3400906
Dissolved Chromium (Cr)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Cobalt (Co)	mg/L	0.004	<0.003	<0.003	0.006	0.003	3400170
Dissolved Copper (Cu)	mg/L	0.003	<0.002	0.003	<0.002	0.002	3400170
Dissolved Iron (Fe)	mg/L	0.26	0.24	0.36	0.97	0.06	3400906
Dissolved Lead (Pb)	mg/L	0.018	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Lithium (Li)	mg/L	<0.02	0.03	0.04	0.05	0.02	3400906
Dissolved Magnesium (Mg)	mg/L	67	130	150	200	0.2	3400906
Dissolved Manganese (Mn)	mg/L	0.17	0.051	0.069	0.26	0.004	3400906
Dissolved Molybdenum (Mo)	mg/L	0.025	0.003	0.005	0.040	0.002	3400170
Dissolved Nickel (Ni)	mg/L	0.011	<0.005	0.006	0.010	0.005	3400170
Dissolved Phosphorus (P)	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	3400906
Dissolved Potassium (K)	mg/L	15	20	20	27	0.3	3400906
Dissolved Selenium (Se)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Silicon (Si)	mg/L	3.8	1.6	4.3	5.2	0.1	3400906
Dissolved Silver (Ag)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	3400170
Dissolved Sodium (Na)	mg/L	24	310	200	250	0.5	3400906
Dissolved Strontium (Sr)	mg/L	0.15	0.32	0.50	0.31	0.02	3400906
Dissolved Sulphur (S)	mg/L	70	190	250	260	0.2	3400906
Dissolved Thallium (Tl)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Tin (Sn)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Titanium (Ti)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Uranium (U)	mg/L	0.011	0.006	0.016	0.032	0.001	3400170
Dissolved Vanadium (V)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Zinc (Zn)	mg/L	<0.03	<0.03	0.28	<0.03	0.03	3400170

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		Q61823	Q61824	Q61825	Q61826	Q61827	Q61828	Q61829	Q61830		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02	2009/09/02	2009/09/02	2009/09/02	2009/09/02		
	Units	**BG-VG1**	**1-09-VG1**	**1-09-VG2**	**2-09-VG1**	**2-09-VG2**	**2-09-VG3**	**3-09-VG1**	**3-09-VG2**	**RDL**	**QC Batch**
Physical Properties											
Moisture	%	70	59	80	62	70	73	79	69	0.3	3407022

GLYCOLS BY GC-FID (WATER)

Maxxam ID		Q61822		
Sampling Date		2009/09/02		
	Units	**2-09-MW4**	**RDL**	**QC Batch**
Glycols				
Ethylene Glycol	mg/L	<10	10	3402945
Diethylene Glycol	mg/L	<10	10	3402945
Triethylene Glycol	mg/L	<10	10	3402945
Tetraethylene Glycol	mg/L	<10	10	3402945
Propylene Glycol	mg/L	<10	10	3402945
Surrogate Recovery (%)				
Methyl Sulfone (sur.)	%	79		3402945

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q61818	Q61819	Q61820	Q61821		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02		
	Units	**04-09-3M**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Polycyclic Aromatics							
Benzo[a]pyrene equivalency	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	3399129
Acenaphthene	ug/L	0.17	<0.10	<0.10	<0.10	0.10	3400603
Acenaphthylene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Acridine	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	3400603
Anthracene	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	3400603
Benzo(a)anthracene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Benzo(b&j)fluoranthene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Benzo(k)fluoranthene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Benzo(g,h,i)perylene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Benzo(c)phenanthrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	3400603
Benzo(a)pyrene	ug/L	<0.0075	<0.0075	<0.0075	<0.0075	0.0075	3400603
Benzo[e]pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	3400603
Chrysene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
Dibenz(a,h)anthracene	ug/L	<0.0075	<0.0075	<0.0075	<0.0075	0.0075	3400603
Dibenzo(a,e)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Dibenzo(a,h)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Dibenzo(a,i)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Dibenzo(a,l)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	3400603
Fluoranthene	ug/L	0.052	<0.040	<0.040	<0.040	0.040	3400603
Fluorene	ug/L	0.53	<0.050	<0.050	<0.050	0.050	3400603
Indeno(1,2,3-cd)pyrene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	3400603
2-Methylnaphthalene	ug/L	20	<0.10	<0.10	0.59	0.10	3400603
Naphthalene	ug/L	14	<0.10	<0.10	0.78	0.10	3400603
Phenanthrene	ug/L	0.47	<0.050	<0.050	<0.050	0.050	3400603
Perylene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	3400603
Pyrene	ug/L	0.038	<0.020	<0.020	<0.020	0.020	3400603
Quinoline	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	3400603
Surrogate Recovery (%)							
D10-ANTHRACENE (sur.)	%	66	51	53	54		3400603
D12-BENZO(A)PYRENE (sur.)	%	46	33	34	34		3400603
D8-ACENAPHTHYLENE (sur.)	%	53	40	39	40		3400603
TERPHENYL-D14 (sur.)	%	61	46	47	48		3400603

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		Q61818	Q61819	Q61820	Q61821		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02		
	Units	**04-09-3M**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Low Level Elements							
Dissolved Mercury (Hg)	ug/L	0.006	0.008	0.008	0.008	0.001	3406740

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q61818		Q61819	Q61820	Q61821		
Sampling Date		2009/09/02		2009/09/02	2009/09/02	2009/09/02		
	Units	**04-09-3M**	**RDL**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Volatiles								
Total Trihalomethanes	ug/L	<2	2	<2	<2	<2	2	3399130
Bromodichloromethane	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Bromoform	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Bromomethane	ug/L	<2	2	<2	<2	<2	2	3411227
Carbon tetrachloride	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Chlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Chlorodibromomethane	ug/L	<1	1	<1	<1	<1	1	3411227
Chloroethane	ug/L	<1	1	<1	<1	<1	1	3411227
Chloroform	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Chloromethane	ug/L	<2	2	<2	<2	<2	2	3411227
1,2-dibromoethane	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
1,2-dichlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
1,3-dichlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
1,4-dichlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1-dichloroethane	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
1,2-dichloroethane	ug/L	6.4	0.5	<0.5	<0.5	1.7	0.5	3411227
1,1-dichloroethene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
cis-1,2-dichloroethene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
trans-1,2-dichloroethene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Dichloromethane	ug/L	<2	2	<2	<2	<2	2	3411227
1,2-dichloropropane	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
cis-1,3-dichloropropene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
trans-1,3-dichloropropene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Methyl methacrylate	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Methyl-tert-butylether (MTBE)	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Styrene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1,1,2-tetrachloroethane	ug/L	<2	2	<2	<2	<2	2	3411227
1,1,2,2-tetrachloroethane	ug/L	<2	2	<2	<2	<2	2	3411227
Tetrachloroethene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
1,2,3-trichlorobenzene	ug/L	<1	1	<1	<1	<1	1	3411227
1,2,4-trichlorobenzene	ug/L	<1	1	<1	<1	<1	1	3411227
1,3,5-trichlorobenzene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1,1-trichloroethane	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1,2-trichloroethane	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Trichloroethene	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Trichlorofluoromethane	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q61818		Q61819	Q61820	Q61821		
Sampling Date		2009/09/02		2009/09/02	2009/09/02	2009/09/02		
	Units	**04-09-3M**	**RDL**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
1,2,4-trimethylbenzene	ug/L	130(1)	5	<0.5	<0.5	23	0.5	3411227
1,3,5-trimethylbenzene	ug/L	31	0.5	<0.5	<0.5	10	0.5	3411227
Vinyl chloride	ug/L	<0.5	0.5	<0.5	<0.5	<0.5	0.5	3411227
Surrogate Recovery (%)								
4-BROMOFLUOROBENZENE (sur.)	%	101		104	108	102		3411227
D4-1,2-DICHLOROETHANE (sur.)	%	97		99	103	96		3411227
D8-TOLUENE (sur.)	%	98		99	100	101		3411227

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Package 1	2.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

AT1 BTEX AND F1-F4 IN WATER (WATER) Comments

Sample Q61818-02 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to dilution to bring analyte within the calibrated range.

REGULATED METALS (CCME/AT1) - DISSOLVED Comments

Sample Q61818-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample Q61819-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample Q61820-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample Q61821-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3399600	4-BROMOFLUOROBENZENE (sur.)	2009/09/06			99	70 - 130	94	%				
3399600	D4-1,2-DICHLOROETHANE (sur.)	2009/09/06			100	70 - 130	96	%				
3399600	D8-TOLUENE (sur.)	2009/09/06			95	70 - 130	97	%				
3399600	Benzene	2009/09/09	109	70 - 130	105	70 - 130	<0.4	ug/L	26.5	40		
3399600	Toluene	2009/09/09	110	70 - 130	105	70 - 130	<0.4	ug/L	27.0	40		
3399600	Ethylbenzene	2009/09/09	108	70 - 130	103	70 - 130	<0.4	ug/L	27.9	40		
3399600	o-Xylene	2009/09/09	110	70 - 130	107	70 - 130	<0.4	ug/L	27.2	40		
3399600	m & p-Xylene	2009/09/09	108	70 - 130	105	70 - 130	<0.8	ug/L	28.6	40		
3399600	(C6-C10)	2009/09/09			95	70 - 130	<100	ug/L	NC	40		
3399600	Xylenes (Total)	2009/09/09					<0.8	ug/L	28.2	40		
3399600	F1 (C6-C10) - BTEX	2009/09/09					<100	ug/L	NC	40		
3400170	Dissolved Aluminum (Al)	2009/09/09			95	80 - 120	<0.001	mg/L	NC	20		
3400170	Dissolved Antimony (Sb)	2009/09/09			97	80 - 120	<0.0002	mg/L	NC	20		
3400170	Dissolved Arsenic (As)	2009/09/09			94	80 - 108	<0.0002	mg/L	NC	20		
3400170	Dissolved Beryllium (Be)	2009/09/09			96	80 - 120	<0.001	mg/L	NC	20		
3400170	Dissolved Chromium (Cr)	2009/09/09			94	80 - 120	<0.001	mg/L	NC	20		
3400170	Dissolved Cobalt (Co)	2009/09/09			101	80 - 120	<0.0003	mg/L	NC	20		
3400170	Dissolved Copper (Cu)	2009/09/09			96	81 - 114	<0.0002	mg/L	NC	20		
3400170	Dissolved Lead (Pb)	2009/09/09			96	82 - 112	<0.0002	mg/L	NC	20		
3400170	Dissolved Molybdenum (Mo)	2009/09/09			96	80 - 106	<0.0002	mg/L	NC	20		
3400170	Dissolved Nickel (Ni)	2009/09/09			95	82 - 112	<0.0005	mg/L	NC	20		
3400170	Dissolved Selenium (Se)	2009/09/09			96	81 - 120	<0.0002	mg/L	NC	20		
3400170	Dissolved Silver (Ag)	2009/09/09			99	80 - 117	<0.0001	mg/L	NC	20		
3400170	Dissolved Thallium (Tl)	2009/09/09			96	80 - 120	<0.0002	mg/L	NC	20		
3400170	Dissolved Tin (Sn)	2009/09/09			97	80 - 112	0.001, RDL=0.001	mg/L	NC	20		
3400170	Dissolved Titanium (Ti)	2009/09/09			91	80 - 110	<0.001	mg/L	NC	20		
3400170	Dissolved Uranium (U)	2009/09/09			98	80 - 114	<0.0001	mg/L	5.5	20		
3400170	Dissolved Vanadium (V)	2009/09/09			95	80 - 119	<0.001	mg/L	NC	20		
3400170	Dissolved Zinc (Zn)	2009/09/09			97	80 - 120	<0.003	mg/L	NC	20		
3400578	F2 (C10-C16 Hydrocarbons)	2009/09/09	126	70 - 130	96	70 - 130	<0.1	mg/L	NC	40		
3400578	F3 (C16-C34 Hydrocarbons)	2009/09/09	91	70 - 130	100	70 - 130	<0.1	mg/L	NC	40		
3400578	F4 (C34-C50 Hydrocarbons)	2009/09/09	99	70 - 130	118	70 - 130	<0.1	mg/L	NC	40		
3400578	O-TERPHENYL (sur.)	2009/09/08			99	50 - 130	101	%				
3400603	D10-ANTHRACENE (sur.)	2009/09/10			111	30 - 130	94	%				
3400603	D12-BENZO(A)PYRENE (sur.)	2009/09/10			88	30 - 130	67	%				
3400603	D8-ACENAPHTHYLENE (sur.)	2009/09/10			98	30 - 130	86	%				
3400603	TERPHENYL-D14 (sur.)	2009/09/10			102	30 - 130	90	%				
3400603	Acenaphthene	2009/09/11			100	30 - 130	<0.10	ug/L	NC	40		
3400603	Acenaphthylene	2009/09/11			95	30 - 130	<0.10	ug/L	NC	40		
3400603	Acridine	2009/09/11			74	30 - 130	<0.20	ug/L	NC	40		

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3400603	Anthracene	2009/09/11			88	30 - 130	<0.010	ug/L	NC	40		
3400603	Fluoranthene	2009/09/11			94	30 - 130	<0.040	ug/L	NC	40		
3400603	Fluorene	2009/09/11			98	30 - 130	<0.050	ug/L	NC	40		
3400603	2-Methylnaphthalene	2009/09/11			93	30 - 130	<0.10	ug/L	6.3	40		
3400603	Naphthalene	2009/09/11			99	30 - 130	<0.10	ug/L	7.4	40		
3400603	Phenanthrene	2009/09/11			99	30 - 130	<0.050	ug/L	NC	40		
3400603	Pyrene	2009/09/11			93	30 - 130	<0.020	ug/L	NC	40		
3400603	Quinoline	2009/09/11			85	30 - 130	<0.20	ug/L	NC	40		
3400603	Benzo(a)anthracene	2009/09/11			79	30 - 130	<0.0085	ug/L	NC	40		
3400603	Benzo(b&j)fluoranthene	2009/09/11			75	30 - 130	<0.0085	ug/L	NC	40		
3400603	Benzo(k)fluoranthene	2009/09/11			90	30 - 130	<0.0085	ug/L	NC	40		
3400603	Benzo(g,h,i)perylene	2009/09/11			101	30 - 130	<0.0085	ug/L	NC	40		
3400603	Benzo(c)phenanthrene	2009/09/11			86	30 - 130	<0.050	ug/L	NC	40		
3400603	Benzo(a)pyrene	2009/09/11			81	30 - 130	<0.0075	ug/L	NC	40		
3400603	Benzo[e]pyrene	2009/09/11			81	30 - 130	<0.050	ug/L	NC	40		
3400603	Chrysene	2009/09/11			95	30 - 130	<0.0085	ug/L	NC	40		
3400603	Dibenz(a,h)anthracene	2009/09/11			117	30 - 130	<0.0075	ug/L	NC	40		
3400603	Dibenzo(a,e)pyrene	2009/09/11			96	30 - 130	<0.10	ug/L	NC	40		
3400603	Dibenzo(a,h)pyrene	2009/09/11			127	30 - 130	<0.10	ug/L	NC	40		
3400603	Dibenzo(a,i)pyrene	2009/09/11			75	30 - 130	<0.10	ug/L	NC	40		
3400603	Dibenzo(a,l)pyrene	2009/09/11			96	30 - 130	<0.10	ug/L	NC	40		
3400603	Indeno(1,2,3-cd)pyrene	2009/09/11			97	30 - 130	<0.0085	ug/L	NC	40		
3400603	Perylene	2009/09/11			101	30 - 130	<0.050	ug/L	NC	40		
3400906	Dissolved Barium (Ba)	2009/09/09			103	80 - 110	<0.01	mg/L	NC	20		
3400906	Dissolved Boron (B)	2009/09/09			108	84 - 117	<0.02	mg/L	7.1	20		
3400906	Dissolved Calcium (Ca)	2009/09/09			105	88 - 115	<0.3	mg/L	0.08	20		
3400906	Dissolved Iron (Fe)	2009/09/09			98	81 - 111	<0.06	mg/L	3.0	20		
3400906	Dissolved Lithium (Li)	2009/09/09			106	82 - 117	<0.02	mg/L	16.3	20		
3400906	Dissolved Magnesium (Mg)	2009/09/09			104	87 - 117	<0.2	mg/L	7.8	20		
3400906	Dissolved Manganese (Mn)	2009/09/09			103	85 - 110	<0.004	mg/L	1.9	20		
3400906	Dissolved Phosphorus (P)	2009/09/09			102	87 - 116	<0.1	mg/L	NC	20		
3400906	Dissolved Potassium (K)	2009/09/09			97	85 - 117	<0.3	mg/L	13.1	20		
3400906	Dissolved Silicon (Si)	2009/09/09			97	80 - 120	<0.1	mg/L	4.6	20		
3400906	Dissolved Sodium (Na)	2009/09/09			89	84 - 118	<0.5	mg/L	14.8	20		
3400906	Dissolved Strontium (Sr)	2009/09/09			104	83 - 113	<0.02	mg/L	7.6	20		
3400906	Dissolved Sulphur (S)	2009/09/09					<0.2	mg/L	6.7	20		
3402945	Methyl Sulfone (sur.)	2009/09/10			90	70 - 130	99	%				
3402945	Ethylene Glycol	2009/09/10			95	70 - 130	<10	mg/L	NC	20		
3402945	Diethylene Glycol	2009/09/10			97	70 - 130	<10	mg/L	NC	20		
3402945	Triethylene Glycol	2009/09/10			105	70 - 130	<10	mg/L	NC	20		

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3402945	Tetraethylene Glycol	2009/09/10			115	70 - 130	<10	mg/L	NC	20		
3402945	Propylene Glycol	2009/09/10			96	70 - 130	<10	mg/L	NC	20		
3406689	Hex. Chromium (Cr 6+)	2009/09/10	103	75 - 125	104	75 - 125	<0.15	mg/kg	NC	35		
3406740	Dissolved Mercury (Hg)	2009/09/11			117	80 - 120	0.001, RDL=0.001	ug/L	NC	20		
3407022	Moisture	2009/09/10							2.7	20		
3411227	4-BROMOFLUOROBENZENE (sur.)	2009/09/11			99	70 - 130	106	%				
3411227	D4-1,2-DICHLOROETHANE (sur.)	2009/09/11			103	70 - 130	99	%				
3411227	D8-TOLUENE (sur.)	2009/09/11			98	70 - 130	101	%				
3411227	Bromodichloromethane	2009/09/11			110	70 - 130	<0.5	ug/L	NC	40		
3411227	Bromoform	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40		
3411227	Bromomethane	2009/09/11			109	70 - 130	<2	ug/L	NC	40		
3411227	Carbon tetrachloride	2009/09/11			115	70 - 130	<0.5	ug/L	NC	40		
3411227	Chlorobenzene	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40		
3411227	Chlorodibromomethane	2009/09/11			107	70 - 130	<1	ug/L	NC	40		
3411227	Chloroethane	2009/09/11			102	70 - 130	<1	ug/L	NC	40		
3411227	Chloroform	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40		
3411227	Chloromethane	2009/09/11			113	70 - 130	<2	ug/L	NC	40		
3411227	1,2-dibromoethane	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40		
3411227	1,2-dichlorobenzene	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40		
3411227	1,3-dichlorobenzene	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40		
3411227	1,4-dichlorobenzene	2009/09/11			102	70 - 130	<0.5	ug/L	NC	40		
3411227	1,1-dichloroethane	2009/09/11			95	70 - 130	<0.5	ug/L	NC	40		
3411227	1,2-dichloroethane	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40		
3411227	1,1-dichloroethene	2009/09/11			110	70 - 130	<0.5	ug/L	NC	40		
3411227	cis-1,2-dichloroethene	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40		
3411227	trans-1,2-dichloroethene	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40		
3411227	Dichloromethane	2009/09/11			105	70 - 130	<2	ug/L	NC	40		
3411227	1,2-dichloropropane	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40		
3411227	cis-1,3-dichloropropene	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40		
3411227	trans-1,3-dichloropropene	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40		
3411227	Methyl methacrylate	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40		
3411227	Methyl-tert-butylether(MTBE)	2009/09/11			85	70 - 130	<0.5	ug/L	NC	40		
3411227	Styrene	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40		
3411227	1,1,1,2-tetrachloroethane	2009/09/11			105	70 - 130	<2	ug/L	NC	40		
3411227	1,1,2,2-tetrachloroethane	2009/09/11			106	70 - 130	<2	ug/L	NC	40		
3411227	Tetrachloroethene	2009/09/11			95	70 - 130	<0.5	ug/L	NC	40		
3411227	1,2,3-trichlorobenzene	2009/09/11			92	70 - 130	<1	ug/L	NC	40		
3411227	1,2,4-trichlorobenzene	2009/09/11			97	70 - 130	<1	ug/L	NC	40		
3411227	1,3,5-trichlorobenzene	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40		
3411227	1,1,1-trichloroethane	2009/09/11			103	70 - 130	<0.5	ug/L	NC	40		

Maxxam Job #: A948579
Report Date: 2009/09/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3411227	1,1,2-trichloroethane	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40		
3411227	Trichloroethene	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40		
3411227	Trichlorofluoromethane	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40		
3411227	1,2,4-trimethylbenzene	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40		
3411227	1,3,5-trimethylbenzene	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40		
3411227	Vinyl chloride	2009/09/11			127	70 - 130	<0.5	ug/L	NC	40		
3412724	Total Antimony (Sb)	2009/09/13			112	75 - 125	<1	mg/kg	NC	35		
3412724	Total Arsenic (As)	2009/09/13			93	75 - 125	<1	mg/kg	15.4	35	87	50 - 150
3412724	Total Barium (Ba)	2009/09/13			98	75 - 125	<10	mg/kg	14.3	35	84	69 - 131
3412724	Total Cadmium (Cd)	2009/09/13			92	75 - 125	<0.1	mg/kg	NC	35		
3412724	Total Chromium (Cr)	2009/09/13			86	75 - 125	<1	mg/kg	15.9	35	91	41 - 159
3412724	Total Cobalt (Co)	2009/09/13			95	75 - 125	<1	mg/kg	13.1	35	92	75 - 125
3412724	Total Copper (Cu)	2009/09/13			95	75 - 125	<5	mg/kg	NC	35	85	72 - 127
3412724	Total Lead (Pb)	2009/09/13			105	75 - 125	<1	mg/kg	16.0	35	82	54 - 146
3412724	Total Mercury (Hg)	2009/09/13			102	75 - 125	<0.05	mg/kg	NC	35	84	75 - 125
3412724	Total Molybdenum (Mo)	2009/09/13			98	75 - 125	<0.4	mg/kg	NC	35		
3412724	Total Nickel (Ni)	2009/09/13			93	75 - 125	<1	mg/kg	10.1	35	83	61 - 139
3412724	Total Selenium (Se)	2009/09/13			85	75 - 125	<0.5	mg/kg	NC	35		
3412724	Total Silver (Ag)	2009/09/13			87	75 - 125	<1	mg/kg	NC	35		
3412724	Total Thallium (Tl)	2009/09/13			101	75 - 125	<0.3	mg/kg	NC	35		
3412724	Total Tin (Sn)	2009/09/13			103	75 - 125	<1	mg/kg	NC	35		
3412724	Total Uranium (U)	2009/09/13			99	75 - 125	<1	mg/kg	NC	35		
3412724	Total Vanadium (V)	2009/09/13			92	75 - 125	<1	mg/kg	13.8	35	103	50 - 150
3412724	Total Zinc (Zn)	2009/09/13			97	75 - 125	<10	mg/kg	NC	35	80	72 - 128
3412724	Total Beryllium (Be)	2009/09/13			82	75 - 125	<0.4	mg/kg	NC	35		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80724 **CHAIN OF CUSTODY**

Page: 1 of 2

Invoice To: Require Report? Yes ☐ No ☒
Company Name: FRANZ ENVIRONMENTAL LTD
Contact Name: LILLIAN ELLIS
Address:
Prov: ONTARIO PC:
Contact #s: Ph: Fax:

Report To:
Jen Keenliside
Franz Environmental Ltd
329 Churchill Ave N Ottawa, ON
Prov: Ontario PC: jkeenliside@franzenvironmental.com
Ph: 613-721-0555 Fax: 613-721-0029

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name: Cambridge Bay
Location: Cambridge Bay
Sampler's Initials: JK, VD, ET

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):
jkeenliside@franzenvironmental.com

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☐ BTEX F1 ☒ VOCs	☐ BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Filtered ☒ Not Preserved	Mercury ☐ Total ☒ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): BTEX F1-F4	Glycol	*HOLD for 60 Days	# of Containers Submitted
1	4-09-3M	W	Sept 2/09								X	X			X	X			X			12
2	4-09-SW1	W	Sept 2/09								X	X			X	X			X			12
3	4-09-2M	W	Sept 2/09								X	X			X	X			X			12
4	4-09-1M	W	Sept 2/09								X	X			X	X			X			12
5	2-09-MW4	W	Sept 2/09																	X		3
6	↳(w/ extra bottle)																					
7																						
8																						
9																						
10																						
11																						
12																						

ARRIVED AT DEPOT
SEP 0 3 2009
TEMP: 18/18/18

Maxxam Job #: A948579

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Relinquished By: J. Keenliside Date/Time: Sept 3/09 4:30pm
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
GH	1750 RECEIVED 4/9/9 SEP 0 4 2009 JBO 0700 1/3/4 CUSTODY SEAL YES / NO	6 6 3	✓

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80721 **CHAIN OF CUSTODY**

Page: 2 of 2

Invoice To: Require Report? Yes ☐ No ☒

Company Name: Franz Environmental Ltd
Contact Name: Lillian Ellis
Address:
Prov: Ontario PC: kellis@franzenvironmental.com
Contact #s: Ph: Fax: .com

Report To:
Jen Keenliside
Franz Environmental Ltd
329 Churchill Ave N. Ottawa
Prov: Ontario PC: jkeenliside@
Ph: 613-721-0555 Fax: franzenvironmental.com

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name: Cambridge Bay
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☒ OTHER ~~CWQG~~

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Flashpoint	pH (1:1)	Paint Filter	TCLP	BTEX	Metals	WATERS: BTEX F1	VOCs	BTEX F1-F2	BTEX F1-F4	Routine Water Package	Turb	F	REGULATED METALS (CCME / AT1)[3] Total	Preserved	Not Preserved	Dissolved	Preserved	Not Preserved	Filtered	Not Filtered	Mercury	Total	Dissolved	Ammonia	TKN	COD	TOC	DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	BG-VG1	VEG	Sept 2/09				X																																1
2	1-09-VG1	VEG	Sept 2/09				X																																1
3	1-09-VG2	VEG	Sept 2/09				X																																1
4	2-09-VG1	VEG	Sept 2/09				X																																1
5	2-09-VG2	VEG	Sept 2/09				X																																1
6	2-09-VG3	VEG	Sept 2/09				X																																1
7	3-09-VG1	VEG	Sept 2/09				X																																1
8	3-09-VG2	VEG	Sept 2/09				X																																1
9																																						
10																																						
11																																						
12																																						

ARRIVED AT DEPOT:
SEP 03 2009
TEMP: 18/16/14

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: A98579

Relinquished By: Jen Keenliside
Sign and Print: J. Keenliside
Date/Time: Sept. 3/09 4:30pm
COMMENTS/SPECIAL INSTRUCTIONS:

1750

JARS USED & NOT SUBMITTED

Received By: CH
4/9/9
RECEIVED SEP 04 2009 JBO 0700
CUSTODY SEAL YES NO

Temperature			Ice
6	6	3	

Your Project #: 1748-0901, CAMBRIDGE BAY
Site: CAMBRIDGE BAY
Your C.O.C. #: 80724, 80721

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2010/01/15
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A948579
Received: 2009/09/05, 7:00

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hardness	4	N/A	2010/01/15	CAL WI-00053	AEMM, Method 423
Elements by ICP - Dissolved	4	N/A	2009/09/09	CAL SOP-00192	EPA SW846 6010B
Elements by ICPMS - Dissolved	4	N/A	2009/09/09	CAL SOP-00191	EPA SW-846 6020A

* Results relate only to the items tested.

Encryption Key

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

LESLEY LEM, Project Manager
Email: lesley.lem@maxxamanalytics.com
Phone# (403) 291-3077

==========

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 CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Maxxam Job #: A948579
Report Date: 2010/01/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

REGULATED METALS (CCME/AT1) - DISSOLVED

Maxxam ID		Q61818	Q61819	Q61820	Q61821		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02		
	Units	**04-09-3M**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Elements							
Dissolved Aluminum (Al)	mg/L	<0.01	0.02	0.06	<0.01	0.01	3400170
Dissolved Antimony (Sb)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Arsenic (As)	mg/L	0.006	<0.002	<0.002	0.005	0.002	3400170
Dissolved Barium (Ba)	mg/L	0.04	0.04	0.04	0.09	0.01	3400906
Dissolved Beryllium (Be)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Boron (B)	mg/L	0.39	0.31	0.37	0.55	0.02	3400906
Dissolved Calcium (Ca)	mg/L	84	140	210	140	0.3	3400906
Dissolved Chromium (Cr)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Cobalt (Co)	mg/L	0.004	<0.003	<0.003	0.006	0.003	3400170
Dissolved Copper (Cu)	mg/L	0.003	<0.002	0.003	<0.002	0.002	3400170
Dissolved Iron (Fe)	mg/L	0.26	0.24	0.36	0.97	0.06	3400906
Dissolved Lead (Pb)	mg/L	0.018	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Lithium (Li)	mg/L	<0.02	0.03	0.04	0.05	0.02	3400906
Dissolved Magnesium (Mg)	mg/L	67	130	150	200	0.2	3400906
Dissolved Manganese (Mn)	mg/L	0.17	0.051	0.069	0.26	0.004	3400906
Dissolved Molybdenum (Mo)	mg/L	0.025	0.003	0.005	0.040	0.002	3400170
Dissolved Nickel (Ni)	mg/L	0.011	<0.005	0.006	0.010	0.005	3400170
Dissolved Phosphorus (P)	mg/L	<0.1	<0.1	<0.1	<0.1	0.1	3400906
Dissolved Potassium (K)	mg/L	15	20	20	27	0.3	3400906
Dissolved Selenium (Se)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Silicon (Si)	mg/L	3.8	1.6	4.3	5.2	0.1	3400906
Dissolved Silver (Ag)	mg/L	<0.001	<0.001	<0.001	<0.001	0.001	3400170
Dissolved Sodium (Na)	mg/L	24	310	200	250	0.5	3400906
Dissolved Strontium (Sr)	mg/L	0.15	0.32	0.50	0.31	0.02	3400906
Dissolved Sulphur (S)	mg/L	70	190	250	260	0.2	3400906
Dissolved Thallium (Tl)	mg/L	<0.002	<0.002	<0.002	<0.002	0.002	3400170
Dissolved Tin (Sn)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Titanium (Ti)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Uranium (U)	mg/L	0.011	0.006	0.016	0.032	0.001	3400170
Dissolved Vanadium (V)	mg/L	<0.01	<0.01	<0.01	<0.01	0.01	3400170
Dissolved Zinc (Zn)	mg/L	<0.03	<0.03	0.28	<0.03	0.03	3400170

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2010/01/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		Q61818	Q61819	Q61820	Q61821		
Sampling Date		2009/09/02	2009/09/02	2009/09/02	2009/09/02		
	Units	**04-09-3M**	**4-09-SW1**	**4-09-2M**	**4-09-1M**	**RDL**	**QC Batch**
Calculated Parameters							
Hardness (CaCO3)	mg/L	490	880	1200	1200	0.5	3679564

RDL = Reportable Detection Limit

Maxxam Job #: A948579
Report Date: 2010/01/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

Package 1	2.7°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

This report is being re-issued for only "Dissolved metals and Hardness" data.

REGULATED METALS (CCME/AT1) - DISSOLVED Comments

Sample Q61818-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample Q61819-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample Q61820-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Sample Q61821-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Maxxam Job #: A948579
Report Date: 2010/01/15

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901, CAMBRIDGE BAY
Site Reference: CAMBRIDGE BAY
Sampler Initials: JK

QUALITY ASSURANCE REPORT

			Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3400170	Dissolved Aluminum (Al)	2009/09/09	95	80 - 120	<0.001	mg/L	NC	20
3400170	Dissolved Antimony (Sb)	2009/09/09	97	80 - 120	<0.0002	mg/L	NC	20
3400170	Dissolved Arsenic (As)	2009/09/09	94	80 - 108	<0.0002	mg/L	NC	20
3400170	Dissolved Beryllium (Be)	2009/09/09	96	80 - 120	<0.001	mg/L	NC	20
3400170	Dissolved Chromium (Cr)	2009/09/09	94	80 - 120	<0.001	mg/L	NC	20
3400170	Dissolved Cobalt (Co)	2009/09/09	101	80 - 120	<0.0003	mg/L	NC	20
3400170	Dissolved Copper (Cu)	2009/09/09	96	81 - 114	<0.0002	mg/L	NC	20
3400170	Dissolved Lead (Pb)	2009/09/09	96	82 - 112	<0.0002	mg/L	NC	20
3400170	Dissolved Molybdenum (Mo)	2009/09/09	96	80 - 106	<0.0002	mg/L	NC	20
3400170	Dissolved Nickel (Ni)	2009/09/09	95	82 - 112	<0.0005	mg/L	NC	20
3400170	Dissolved Selenium (Se)	2009/09/09	96	81 - 120	<0.0002	mg/L	NC	20
3400170	Dissolved Silver (Ag)	2009/09/09	99	80 - 117	<0.0001	mg/L	NC	20
3400170	Dissolved Thallium (Tl)	2009/09/09	96	80 - 120	<0.0002	mg/L	NC	20
3400170	Dissolved Tin (Sn)	2009/09/09	97	80 - 112	0.001, RDL=0.001	mg/L	NC	20
3400170	Dissolved Titanium (Ti)	2009/09/09	91	80 - 110	<0.001	mg/L	NC	20
3400170	Dissolved Uranium (U)	2009/09/09	98	80 - 114	<0.0001	mg/L	5.5	20
3400170	Dissolved Vanadium (V)	2009/09/09	95	80 - 119	<0.001	mg/L	NC	20
3400170	Dissolved Zinc (Zn)	2009/09/09	97	80 - 120	<0.003	mg/L	NC	20
3400906	Dissolved Barium (Ba)	2009/09/09	103	80 - 110	<0.01	mg/L	NC	20
3400906	Dissolved Boron (B)	2009/09/09	108	84 - 117	<0.02	mg/L	7.1	20
3400906	Dissolved Calcium (Ca)	2009/09/09	105	88 - 115	<0.3	mg/L	0.08	20
3400906	Dissolved Iron (Fe)	2009/09/09	98	81 - 111	<0.06	mg/L	3.0	20
3400906	Dissolved Lithium (Li)	2009/09/09	106	82 - 117	<0.02	mg/L	16.3	20
3400906	Dissolved Magnesium (Mg)	2009/09/09	104	87 - 117	<0.2	mg/L	7.8	20
3400906	Dissolved Manganese (Mn)	2009/09/09	103	85 - 110	<0.004	mg/L	1.9	20
3400906	Dissolved Phosphorus (P)	2009/09/09	102	87 - 116	<0.1	mg/L	NC	20
3400906	Dissolved Potassium (K)	2009/09/09	97	85 - 117	<0.3	mg/L	13.1	20
3400906	Dissolved Silicon (Si)	2009/09/09	97	80 - 120	<0.1	mg/L	4.6	20
3400906	Dissolved Sodium (Na)	2009/09/09	89	84 - 118	<0.5	mg/L	14.8	20
3400906	Dissolved Strontium (Sr)	2009/09/09	104	83 - 113	<0.02	mg/L	7.6	20
3400906	Dissolved Sulphur (S)	2009/09/09			<0.2	mg/L	6.7	20

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80724 **CHAIN OF CUSTODY**

Page: 1 of 2

Invoice To: Require Report? Yes ☐ No ☒
Company Name: FRANZ ENVIRONMENTAL LTD
Contact Name: LILLIAN ELLIS
Address:
Prov: ONTARIO PC:
Contact #s: Ph: Fax:

Report To:
Jen Keenliside
Franz Environmental Ltd
329 Churchill Ave N Ottawa, ON
Prov: Ontario PC: jkeenliside@franzenvironmental.com
Ph: 613-721-0555 Fax: 613-721-0029

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name: Cambridge Bay
Location: Cambridge Bay
Sampler's Initials: JK, VD, ET

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☐ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):
jkeenliside@franzenvironmental.com

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☐ BTEX F1 ☒ VOCs	☐ BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3] Total ☐ Preserved ☐ Not Preserved	Dissolved ☐ Preserved ☐ Not Preserved ☒ Filtered ☐ Not Filtered	Mercury ☐ Total ☒ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): PAH Glycol	*HOLD for 60 Days	# of Containers Submitted
1	4-09-3M	W	Sept 2/09								X	X			X	X			X		12
2	4-09-SW1	W	Sept 2/09								X	X			X	X			X		12
3	4-09-2M	W	Sept 2/09								X	X			X	X			X		12
4	4-09-1M	W	Sept 2/09								X	X			X	X			X		12
5	2-09-MW4	W	Sept 2/09																X		3
6	↳(w/ extra bottle)																				
7																			ARRIVED AT DEPOT		
8																			SEP 03 2009		
9																			TEMP: 18/18/18		
10																					
11																					
12																					

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: A94857

Relinquished By: J. Keenliside Date/Time: Sept 3/09 4:30pm
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
GH	RECEIVED SEP 04 2009 4/9/9 JBS 0700 1750 1/3/4	6 6 3	✓

CUSTODY SEAL YES / NO

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80721 **CHAIN OF CUSTODY**

Page: 2 of 2

Invoice To: Require Report? Yes ☐ No ☒

Company Name: Franz Environmental Ltd
Contact Name: Lillian Ellis
Address:
Prov: Ontario PC: kellis@franzenvironmental.com
Contact #s: Ph: Fax: .com

Report To:
Jen Keenliside
Franz Environmental Ltd
329 Churchill Ave N. Ottawa
Prov: Ontario PC: jkeenliside@
Ph: 613-721-0555 Fax: franzenvironmental.com

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name: Cambridge Bay
Location: Cambridge Bay
Sampler's Initials: JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☒ CCME
☒ OTHER ~~CWQG~~

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4; Sieve (75 micron); Salinity 4; Regulated Metals (CCME / AT1)[1]; Assessment ICP Metals[2]; Paint Filter; Flashpoint; pH (1:1); TCLP; BTEX; Metals	WATERS (footnotes defined on back): BTEX F1 VOCs; BTEX F1-F2; BTEX F1-F4; Routine Water Package; Turb; F; REGULATED METALS (CCME / AT1)[3]: Total Preserved, Not Preserved, Dissolved Preserved, Not Preserved Filtered; Mercury: Total, Dissolved; Ammonia; TKN; COD; TOC; DOC	OTHER TEST(S)	*HOLD for 60 Days	# of Containers Submitted
1	BG-VG1	VEG	Sept 2/09	X				1
2	1-09-VG1	VEG	Sept 2/09	X				1
3	1-09-VG2	VEG	Sept 2/09	X				1
4	2-09-VG1	VEG	Sept 2/09	X				1
5	2-09-VG2	VEG	Sept 2/09	X				1
6	2-09-VG3	VEG	Sept 2/09	X				1
7	3-09-VG1	VEG	Sept 2/09	X				1
8	3-09-VG2	VEG	Sept 2/09	X				1
9								
10								
11								
12								

ARRIVED AT DEPOT:
SEP 03 2009
TEMP: 18/16/16

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: A98579

Relinquished By: Jen Keenliside
Sign and Print: J. Keenliside
Date/Time: Sept. 3/09 4:30PM
COMMENTS/SPECIAL INSTRUCTIONS:

JARS USED & NOT SUBMITTED

Received By: GH
RECEIVED SEP 04 2009 JBO 0700
4/9/9 1750
CUSTODY SEAL ☐ YES ☐ NO

Temperature			Ice
6	6	3	

Your Project #: 1748-0901
Site: CAMBRIDGE BAY
Your C.O.C. #: 80782, 80781

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2009/09/22

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A948731
Received: 2009/09/05, 15:50

Sample Matrix: Water
Samples Received: 15

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS	10	N/A	2009/09/09	CAL SOP-00190	EPA 8260 C / CCME
BTEX/F1 in Water by HS GC/MS	3	N/A	2009/09/10	CAL SOP-00190	EPA 8260 C / CCME
BTEX/F1 in Water by HS GC/MS	1	N/A	2009/09/11	CAL SOP-00190	EPA 8260 C / CCME
Cadmium - low level CCME - Dissolved	12	N/A	2009/09/09	CAL SOP-00191	EPA SW-846 6020A
Cadmium - low level CCME - Dissolved	1	N/A	2009/09/10	CAL SOP-00191	EPA SW-846 6020A
Cadmium - low level CCME - Dissolved	1	N/A	2009/09/15	CAL SOP-00191	EPA SW-846 6020A
CCME Hydrocarbons (F2-F4 in water)	7	2009/09/08	2009/09/09	CAL SOP-00087	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in water)	5	2009/09/08	2009/09/10	CAL SOP-00087	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in water)	1	2009/09/08	2009/09/11	CAL SOP-00087	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in water)	1	2009/09/11	2009/09/13	CAL SOP-00087	CCME PHC-CWS
Ethylene, Di, Tri & Tetraethylene glycol	2	N/A	2009/09/10	CAL SOP-00093	EPA 8015 D
Mercury - Low Level (Dissolved)	13	2009/09/09	2009/09/11	CAL SOP-00007	EPA 1631
Mercury - Low Level (Dissolved)	1	2009/09/11	2009/09/11	CAL SOP-00007	EPA 1631
Elements by ICP - Dissolved	13	N/A	2009/09/10	CAL SOP-00192	EPA SW846 6010B
Elements by ICP - Dissolved	1	N/A	2009/09/11	CAL SOP-00192	EPA SW846 6010B
Elements by ICPMS - Dissolved	13	N/A	2009/09/08	CAL SOP-00191	EPA SW-846 6020A
Elements by ICPMS - Dissolved	1	N/A	2009/09/11	CAL SOP-00191	EPA SW-846 6020A
Benzo[a]pyrene Equivalency	9	N/A	2009/09/14	CAL SOP-00165	EPA 8270D
Benzo[a]pyrene Equivalency	1	N/A	2009/09/16	CAL SOP-00165	EPA 8270D
Polycyclic Aromatic Hydrocarbons (2)	2	2009/09/08	2009/09/10	CAL SOP-00165	EPA 3510C/8270D
Polycyclic Aromatic Hydrocarbons (2)	7	2009/09/08	2009/09/11	CAL SOP-00165	EPA 3510C/8270D
Polycyclic Aromatic Hydrocarbons (2)	1	2009/09/12	2009/09/14	CAL SOP-00165	EPA 3510C/8270D
Polychlorinated Biphenyls	3	2009/09/08	2009/09/09	CAL SOP-00149	EPA 3510C, EPA 8082A
Total Trihalomethanes Calculation	13	N/A	2009/09/14	CAL SOP-00104	EPA 8260C
Total Trihalomethanes Calculation	1	N/A	2009/09/15	CAL SOP-00104	EPA 8260C
VOCs in Water by P&T GC/MS (Std List)	1	N/A	2009/09/12	CAL SOP-00104	EPA 8260 C
VOCs in Water by P&T GC/MS (Std List) (1)	11	N/A	2009/09/12	EENVSOP-00003 EENVSOP-00002	EPA 8260C / CCME
VOCs in Water by P&T GC/MS (Std List) (1)	2	N/A	2009/09/14	EENVSOP-00003 EENVSOP-00002	EPA 8260C / CCME

* Results relate only to the items tested.

(1) This test was performed by Maxxam Edmonton Environmental
(2) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.

../2

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Encryption Key

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

LESLEY LEM, Project Manager
Email: lesley.lem@maxxamanalytics.com
Phone# (403) 291-3077

==========

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 CALA have approved this reporting process and electronic report format.

Total cover pages: 2

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		Q62925	Q62974	Q62980	Q62982	Q62983	Q62984	Q62985	Q62986	Q62987		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/02		
	Units	**1-09-5M**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**5-09-MW3**	**1-09-3M**	**FR-1**	**2-09-MW4**	**RDL**	**QC Batch**
Extractable Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3400578
F3 (C16-C34 Hydrocarbons)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3400578
F4 (C34-C50 Hydrocarbons)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3400578
Reached Baseline at C50	mg/L	YES	YES	YES	YES	YES	YES	YES	YES	YES		3400578
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	76	72	77	80	69	71	82	72	84		3400578
Volatiles												
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	3399997
Toluene	ug/L	1.0	0.9	1.8	1.7	1.0	1.1	1.9	1.8	<0.4	0.4	3399997
Ethylbenzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	3399997
o-Xylene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	1.1	<0.4	<0.4	<0.4	0.4	3399997
m & p-Xylene	ug/L	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	3399997
Xylenes (Total)	ug/L	<0.8	<0.8	<0.8	<0.8	<0.8	1.1	<0.8	<0.8	<0.8	0.8	3399997
F1 (C6-C10) - BTEX	ug/L	<100	<100	<100	<100	<100	<100	<100	<100	<100	100	3399997
(C6-C10)	ug/L	<100	<100	<100	<100	<100	<100	<100	<100	<100	100	3399997
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	93	94	97	95	105	99	99	96	97		3399997
D4-1,2-DICHLOROETHANE (sur.)	%	83	84	87	83	84	87	83	83	84		3399997
D8-TOLUENE (sur.)	%	98	97	99	96	97	98	96	96	95		3399997

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		Q62989	Q62990		Q62991		Q62992		Q62995	Q62995		
Sampling Date		2009/09/02	2009/09/01		2009/09/02		2009/09/02		2009/09/01	2009/09/01		
	Units	**3-09-5M**	**6-09-MW1**	**RDL**	**3-09-4M**	**RDL**	**3-09-6M**	**QC Batch**	**1-09-4M**	**1-09-4M Lab-Dup**	**RDL**	**QC Batch**
Extractable Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	mg/L	3.5	<0.1	0.1	3.8	0.1	2.5	3400578	<0.1	<0.1	0.1	3410453
F3 (C16-C34 Hydrocarbons)	mg/L	<0.1	<0.1	0.1	0.2	0.1	0.5	3400578	<0.1	<0.1	0.1	3410453
F4 (C34-C50 Hydrocarbons)	mg/L	<0.1	<0.1	0.1	<0.1	0.1	<0.1	3400578	<0.1	<0.1	0.1	3410453
Reached Baseline at C50	mg/L	YES	YES		YES		YES	3400578	YES	YES		3410453
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	67	70		67		59	3400578	91	84		3410453
Volatiles												
Benzene	ug/L	670	<0.4	0.4	1700	4	2.5	3399997	<0.4		0.4	3410853
Toluene	ug/L	110	1.0	0.4	2800	4	2.1	3399997	2.3		0.4	3410853
Ethylbenzene	ug/L	38	<0.4	0.4	180	4	1.1	3399997	<0.4		0.4	3410853
o-Xylene	ug/L	150	<0.4	0.4	770	4	6.2	3399997	<0.4		0.4	3410853
m & p-Xylene	ug/L	120	<0.8	0.8	1500	8	13	3399997	<0.8		0.8	3410853
Xylenes (Total)	ug/L	280	<0.8	0.8	2300	8	19	3399997	<0.8		0.8	3410853
F1 (C6-C10) - BTEX	ug/L	1700	<100	100	3500	1000	410	3399997	<100		100	3410853
(C6-C10)	ug/L	2800	<100	100	10000	1000	430	3399997	<100		100	3410853
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	92	106		99		92	3399997	96			3410853
D4-1,2-DICHLOROETHANE (sur.)	%	83	84		86		87	3399997	101			3410853
D8-TOLUENE (sur.)	%	97	96		99		99	3399997	96			3410853

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

REGULATED METALS (CCME/AT1) - DISSOLVED

Maxxam ID		Q62925	Q62925		Q62974	Q62980	Q62982	Q62983		Q62984		Q62985		
Sampling Date		2009/09/01	2009/09/01		2009/09/01	2009/09/01	2009/09/01	2009/09/01		2009/09/01		2009/09/01		
	Units	**1-09-5M**	**1-09-5M Lab-Dup**	**RDL**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**RDL**	**5-09-MW3**	**RDL**	**1-09-3M**	**RDL**	**QC Batch**
Low Level Elements														
Dissolved Cadmium (Cd)	ug/L	0.11		0.05	0.20	<0.05	<0.05	<0.05	0.05	0.07	0.05	<0.05	0.05	3399840
Elements														
Dissolved Aluminum (Al)	mg/L	0.27	0.29	0.01	<0.01	0.24	0.24	0.90	0.01	0.05	0.01	0.07	0.01	3400579
Dissolved Antimony (Sb)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Arsenic (As)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Barium (Ba)	mg/L	0.11		0.01	0.05	0.05	0.05	0.04	0.01	0.05	0.01	0.02	0.01	3403545
Dissolved Beryllium (Be)	mg/L	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Boron (B)	mg/L	0.21		0.02	0.07	0.09	0.11	0.15	0.02	0.50	0.02	0.86	0.02	3403545
Dissolved Calcium (Ca)	mg/L	410		0.3	180	130	140	89	0.3	120	0.3	330	0.3	3403545
Dissolved Chromium (Cr)	mg/L	<0.01(1)	<0.01	0.01	0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Cobalt (Co)	mg/L	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	0.003	<0.003	0.003	3400579
Dissolved Copper (Cu)	mg/L	0.007(1)	0.007	0.002	0.012	0.008	0.018	0.009	0.002	0.004	0.002	0.003	0.002	3400579
Dissolved Iron (Fe)	mg/L	0.45		0.06	0.31	0.46	0.45	1.4	0.06	0.27	0.06	0.50	0.06	3403545
Dissolved Lead (Pb)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Lithium (Li)	mg/L	0.07		0.02	0.05	0.02	0.03	<0.02	0.02	0.04	0.02	0.10	0.02	3403545
Dissolved Magnesium (Mg)	mg/L	330		0.2	180	110	120	72	0.2	150	0.2	320	0.2	3403545
Dissolved Manganese (Mn)	mg/L	0.035		0.004	0.021	0.025	0.028	0.056	0.004	0.12	0.004	0.020	0.004	3403545
Dissolved Molybdenum (Mo)	mg/L	<0.002	<0.002	0.002	0.009	0.002	0.002	0.003	0.002	0.010	0.002	<0.002	0.002	3400579
Dissolved Nickel (Ni)	mg/L	0.006(1)	0.007	0.005	<0.005	0.005	<0.005	<0.005	0.005	0.005	0.005	0.007	0.005	3400579
Dissolved Phosphorus (P)	mg/L	<0.1		0.1	0.1	<0.1	<0.1	0.2	0.1	<0.1	0.1	<0.1	0.1	3403545
Dissolved Potassium (K)	mg/L	38		0.3	34	21	22	17	0.3	40	0.3	78	0.3	3403545
Dissolved Selenium (Se)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Silicon (Si)	mg/L	4.0		0.1	5.2	5.9	5.7	3.0	0.1	2.4	0.1	4.2	0.1	3403545
Dissolved Silver (Ag)	mg/L	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	3400579
Dissolved Sodium (Na)	mg/L	700(2)		3	390	180	220	190	0.5	680(2)	3	670(2)	3	3403545
Dissolved Strontium (Sr)	mg/L	0.53		0.02	0.22	0.14	0.15	0.16	0.02	0.33	0.02	1.1	0.02	3403545
Dissolved Sulphur (S)	mg/L	520(2)		1	250	110	130	79	0.2	190	0.2	590(2)	1	3403545
Dissolved Thallium (Tl)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Tin (Sn)	mg/L	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Titanium (Ti)	mg/L	<0.01	<0.01	0.01	<0.01	0.02	<0.01	0.05	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Uranium (U)	mg/L	0.029	0.029	0.001	0.026	0.012	0.012	0.007	0.001	0.013	0.001	0.033	0.001	3400579
Dissolved Vanadium (V)	mg/L	<0.01(1)	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Zinc (Zn)	mg/L	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	<0.03	0.03	3400579

RDL = Reportable Detection Limit
(1) - Matrix Spike recovery non calculable due to matrix interference. Original sample diluted to remove interference.
(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

REGULATED METALS (CCME/AT1) - DISSOLVED

Maxxam ID		Q62986		Q62987		Q62989	Q62990	Q62991	Q62992		Q62995		
Sampling Date		2009/09/01		2009/09/02		2009/09/02	2009/09/01	2009/09/02	2009/09/02		2009/09/01		
	Units	**FR-1**	**RDL**	**2-09-MW4**	**RDL**	**3-09-5M**	**6-09-MW1**	**3-09-4M**	**3-09-6M**	**QC Batch**	**1-09-4M**	**RDL**	**QC Batch**
Low Level Elements													
Dissolved Cadmium (Cd)	ug/L	0.19	0.05	<0.05	0.05	0.13	0.33	<0.05	0.06	3399840	<0.05	0.05	3410297
Elements													
Dissolved Aluminum (Al)	mg/L	<0.01	0.01	<0.01	0.01	0.04	<0.01	1.0	0.13	3400579	0.33	0.01	3412196
Dissolved Antimony (Sb)	mg/L	0.005	0.002	<0.002	0.002	<0.002	0.006	<0.002	<0.002	3400579	<0.002	0.002	3412196
Dissolved Arsenic (As)	mg/L	0.003	0.002	<0.002	0.002	<0.002	0.003	0.003	0.006	3400579	<0.002	0.002	3412196
Dissolved Barium (Ba)	mg/L	0.03	0.01	0.03	0.01	0.03	0.03	0.07	0.12	3403545	0.03	0.01	3410303
Dissolved Beryllium (Be)	mg/L	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	3400579	<0.01	0.01	3412196
Dissolved Boron (B)	mg/L	0.54	0.02	1.2	0.02	0.29	0.53	0.68	0.85	3403545	0.28	0.02	3410303
Dissolved Calcium (Ca)	mg/L	94	0.3	240	0.3	70	91	86	200	3403545	180	0.3	3410303
Dissolved Chromium (Cr)	mg/L	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	3400579	<0.01	0.01	3412196
Dissolved Cobalt (Co)	mg/L	<0.003	0.003	0.011	0.003	<0.003	<0.003	0.008	0.014	3400579	<0.003	0.003	3412196
Dissolved Copper (Cu)	mg/L	0.010	0.002	0.004	0.002	0.004	0.010	0.012	0.018	3400579	0.005	0.002	3412196
Dissolved Iron (Fe)	mg/L	0.09	0.06	0.42	0.06	0.19	0.07	1.7	1.6	3403545	0.51	0.06	3410303
Dissolved Lead (Pb)	mg/L	<0.002	0.002	<0.002	0.002	<0.002	<0.002	0.10	0.004	3400579	<0.002	0.002	3412196
Dissolved Lithium (Li)	mg/L	0.03	0.02	0.07	0.02	<0.02	0.03	0.04	0.03	3403545	0.03	0.02	3410303
Dissolved Magnesium (Mg)	mg/L	40	0.2	320	0.2	45	38	82	120	3403545	120	0.2	3410303
Dissolved Manganese (Mn)	mg/L	0.13	0.004	0.16	0.004	0.094	0.050	0.33	0.46	3403545	0.10	0.004	3410303
Dissolved Molybdenum (Mo)	mg/L	0.026	0.002	0.004	0.002	0.022	0.029	0.011	0.007	3400579	0.003	0.002	3412196
Dissolved Nickel (Ni)	mg/L	0.011	0.005	0.033	0.005	0.010	0.012	0.042	0.052	3400579	<0.005	0.005	3412196
Dissolved Phosphorus (P)	mg/L	0.3	0.1	<0.1	0.1	<0.1	0.4	0.2	<0.1	3403545	0.2	0.1	3410303
Dissolved Potassium (K)	mg/L	15	0.3	83	0.3	46	14	110	94	3403545	24	0.3	3410303
Dissolved Selenium (Se)	mg/L	<0.002	0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	3400579	<0.002	0.002	3412196
Dissolved Silicon (Si)	mg/L	5.8	0.1	2.0	0.1	1.6	5.4	3.7	7.9	3403545	5.9	0.1	3410303
Dissolved Silver (Ag)	mg/L	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	3400579	<0.001	0.001	3412196
Dissolved Sodium (Na)	mg/L	33	0.5	1000(1)	3	130	32	260	300	3403545	160	0.5	3410303
Dissolved Strontium (Sr)	mg/L	0.18	0.02	1.2	0.02	0.15	0.18	0.21	0.46	3403545	0.32	0.02	3410303
Dissolved Sulphur (S)	mg/L	48	0.2	520(1)	1	91	44	120	160	3403545	180	0.2	3410303
Dissolved Thallium (Tl)	mg/L	<0.002	0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	3400579	<0.002	0.002	3412196
Dissolved Tin (Sn)	mg/L	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	3400579	<0.01	0.01	3412196
Dissolved Titanium (Ti)	mg/L	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.04	<0.01	3400579	0.03	0.01	3412196
Dissolved Uranium (U)	mg/L	0.007	0.001	0.008	0.001	0.007	0.006	0.013	0.014	3400579	0.014	0.001	3412196
Dissolved Vanadium (V)	mg/L	<0.01	0.01	<0.01	0.01	0.01	0.01	0.02	0.01	3400579	<0.01	0.01	3412196
Dissolved Zinc (Zn)	mg/L	<0.03	0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	3400579	<0.03	0.03	3412196

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

GLYCOLS BY GC-FID (WATER)

Maxxam ID		Q62925	Q62981		
Sampling Date		2009/09/01	2009/09/01		
	Units	**1-09-5M**	**FR-2**	**RDL**	**QC Batch**
Glycols					
Ethylene Glycol	mg/L	<10	<10	10	3402945
Diethylene Glycol	mg/L	<10	<10	10	3402945
Triethylene Glycol	mg/L	<10	<10	10	3402945
Tetraethylene Glycol	mg/L	<10	<10	10	3402945
Propylene Glycol	mg/L	<10	<10	10	3402945
Surrogate Recovery (%)					
Methyl Sulfone (sur.)	%	80	82		3402945

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		Q62974	Q62974	Q62982	Q62987		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/02		
	Units	**1-09-6M**	**1-09-6M Lab-Dup**	**FR-3**	**2-09-MW4**	**RDL**	**QC Batch**
Polychlorinated Biphenyls							
Aroclor 1016	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1221	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1232	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1242	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1248	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1254	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1260	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1262	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1268	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Total Aroclors	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Surrogate Recovery (%)							
NONACHLOROBIPHENYL (sur.)	%	96	100	97	92		3400001

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62925	Q62981	Q62984	Q62986	Q62987		Q62989		Q62990		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/02		2009/09/02		2009/09/01		
	Units	**1-09-5M**	**FR-2**	**5-09-MW3**	**FR-1**	**2-09-MW4**	**RDL**	**3-09-5M**	**RDL**	**6-09-MW1**	**RDL**	**QC Batch**
Polycyclic Aromatics												
Benzo[a]pyrene equivalency	ug/L	<0.01	<0.01	<0.01	0.02	<0.01	0.01	<0.01	0.01	<0.01	0.01	3399843
Acenaphthene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	0.20	0.10	<0.10	0.10	3400603
Acenaphthylene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Acridine	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	<0.20	0.20	<0.20	0.20	3400603
Anthracene	ug/L	<0.010	0.029	<0.010	<0.010	<0.010	0.010	<0.010	0.010	<0.010	0.010	3400603
Benzo(a)anthracene	ug/L	<0.0085	<0.0085	<0.0085	0.016	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Benzo(b&j)fluoranthene	ug/L	<0.0085	<0.0085	<0.0085	0.019	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Benzo(k)fluoranthene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Benzo(g,h,i)perylene	ug/L	<0.0085	<0.0085	<0.0085	0.016	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Benzo(c)phenanthrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	3400603
Benzo(a)pyrene	ug/L	<0.0075	<0.0075	<0.0075	0.013	<0.0075	0.0075	<0.0075	0.0075	<0.0075	0.0075	3400603
Benzo[e]pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	3400603
Chrysene	ug/L	<0.0085	<0.0085	<0.0085	0.017	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Dibenz(a,h)anthracene	ug/L	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	0.0075	<0.0075	0.0075	<0.0075	0.0075	3400603
Dibenzo(a,e)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Dibenzo(a,h)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Dibenzo(a,i)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Dibenzo(a,l)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Fluoranthene	ug/L	<0.040	<0.040	<0.040	0.13	<0.040	0.040	<0.040	0.040	<0.040	0.040	3400603
Fluorene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	0.55	0.050	<0.050	0.050	3400603
Indeno(1,2,3-cd)pyrene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
2-Methylnaphthalene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	82 (1)	1.0	<0.10	0.10	3400603
Naphthalene	ug/L	<0.10	<0.10	<0.10	0.18	<0.10	0.10	84 (1)	1.0	0.10	0.10	3400603
Phenanthrene	ug/L	<0.050	<0.050	<0.050	0.093	<0.050	0.050	0.10	0.050	<0.050	0.050	3400603
Perylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	3400603
Pyrene	ug/L	<0.020	<0.020	<0.020	0.11	<0.020	0.020	0.025	0.020	0.021	0.020	3400603
Quinoline	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	<0.20	0.20	<0.20	0.20	3400603
Surrogate Recovery (%)												
D10-ANTHRACENE (sur.)	%	64	62	59	57	75		70		64		3400603
D12-BENZO(A)PYRENE (sur.)	%	39	38	38	37	46		44		43		3400603
D8-ACENAPHTHYLENE (sur.)	%	48	47	52	38	55		68		47		3400603
TERPHENYL-D14 (sur.)	%	56	55	56	51	66		63		58		3400603

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62991		Q62992	Q62992		Q62995	Q62995		
Sampling Date		2009/09/02		2009/09/02	2009/09/02		2009/09/01	2009/09/01		
	Units	**3-09-4M**	**RDL**	**3-09-6M**	**3-09-6M Lab-Dup**	**QC Batch**	**1-09-4M**	**1-09-4M Lab-Dup**	**RDL**	**QC Batch**
Polycyclic Aromatics										
Benzo[a]pyrene equivalency	ug/L	<0.01	0.01	<0.01		3399843	<0.01		0.01	3410298
Acenaphthene	ug/L	0.11	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Acenaphthylene	ug/L	<0.10	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Acridine	ug/L	<0.20	0.20	<0.20	<0.20	3400603	<0.20	<0.20	0.20	3410454
Anthracene	ug/L	<0.010	0.010	<0.010	<0.010	3400603	<0.010	<0.010	0.010	3410454
Benzo(a)anthracene	ug/L	<0.0085(1)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Benzo(b&j)fluoranthene	ug/L	<0.0085(2)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Benzo(k)fluoranthene	ug/L	<0.0085(3)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Benzo(g,h,i)perylene	ug/L	<0.0085(4)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Benzo(c)phenanthrene	ug/L	<0.050(5)	0.050	<0.050	<0.050	3400603	<0.050	<0.050	0.050	3410454
Benzo(a)pyrene	ug/L	<0.0075(6)	0.0075	<0.0075	<0.0075	3400603	<0.0075	<0.0075	0.0075	3410454
Benzo[e]pyrene	ug/L	<0.050(7)	0.050	<0.050	<0.050	3400603	<0.050	<0.050	0.050	3410454
Chrysene	ug/L	<0.0085(8)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Dibenz(a,h)anthracene	ug/L	<0.0075(9)	0.0075	<0.0075	<0.0075	3400603	<0.0075	<0.0075	0.0075	3410454
Dibenzo(a,e)pyrene	ug/L	<0.10(10)	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Dibenzo(a,h)pyrene	ug/L	<0.10(11)	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Dibenzo(a,i)pyrene	ug/L	<0.10(12)	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Dibenzo(a,l)pyrene	ug/L	<0.10(13)	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Fluoranthene	ug/L	<0.040	0.040	<0.040	<0.040	3400603	<0.040	<0.040	0.040	3410454
Fluorene	ug/L	0.37	0.050	0.066	0.059	3400603	<0.050	<0.050	0.050	3410454
Indeno(1,2,3-cd)pyrene	ug/L	<0.0085(14)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454

RDL = Reportable Detection Limit
(1) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:7.82%, limits30-130%)
(10) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.26%, limits30-130%)
(11) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.86%, limits30-130%)
(12) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:4.10%, limits30-130%)
(13) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:1.79%, limits30-130%)
(14) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:6.83%, limits30-130%)
(2) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.97%, limits30-130%)
(3) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.82%, limits30-130%)
(4) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:6.36%, limits30-130%)
(5) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:14.17%, limits30-130%)
(6) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.03%, limits30-130%)
(7) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.63%, limits30-130%)
(8) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:7.35%, limits30-130%)
(9) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:6.45%, limits30-130%)

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62991		Q62992	Q62992		Q62995	Q62995		
Sampling Date		2009/09/02		2009/09/02	2009/09/02		2009/09/01	2009/09/01		
	Units	**3-09-4M**	**RDL**	**3-09-6M**	**3-09-6M Lab-Dup**	**QC Batch**	**1-09-4M**	**1-09-4M Lab-Dup**	**RDL**	**QC Batch**
2-Methylnaphthalene	ug/L	77(1)	1.0	1.0	0.97	3400603	<0.10	<0.10	0.10	3410454
Naphthalene	ug/L	330(1)	1.0	2.1	1.9	3400603	<0.10	<0.10	0.10	3410454
Phenanthrene	ug/L	0.30	0.050	<0.050	<0.050	3400603	<0.050	<0.050	0.050	3410454
Perylene	ug/L	<0.050(2)	0.050	<0.050	<0.050	3400603	<0.050	<0.050	0.050	3410454
Pyrene	ug/L	0.045	0.020	<0.020	<0.020	3400603	<0.020	<0.020	0.020	3410454
Quinoline	ug/L	<0.20	0.20	<0.20	<0.20	3400603	<0.20	<0.20	0.20	3410454
Surrogate Recovery (%)										
D10-ANTHRACENE (sur.)	%	73		76	68	3400603	95	96		3410454
D12-BENZO(A)PYRENE (sur.)	%	55		54	43	3400603	90	82		3410454
D8-ACENAPHTHYLENE (sur.)	%	68		77	65	3400603	71	75		3410454
TERPHENYL-D14 (sur.)	%	68		71	60	3400603	84	83		3410454

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		Q62925	Q62974	Q62980	Q62982	Q62983	Q62984	Q62985	Q62986		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01		
	Units	**1-09-5M**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**5-09-MW3**	**1-09-3M**	**FR-1**	**RDL**	**QC Batch**
Low Level Elements											
Dissolved Mercury (Hg)	ug/L	0.003	0.004	0.005	0.006	0.003	0.004	0.004	0.004	0.001	3406740

Maxxam ID		Q62987	Q62989	Q62990	Q62991	Q62992	Q62995		
Sampling Date		2009/09/02	2009/09/02	2009/09/01	2009/09/02	2009/09/02	2009/09/01		
	Units	**2-09-MW4**	**3-09-5M**	**6-09-MW1**	**3-09-4M**	**3-09-6M**	**1-09-4M**	**RDL**	**QC Batch**
Low Level Elements									
Dissolved Mercury (Hg)	ug/L	0.002	0.002	0.005	0.005	0.009	0.003	0.001	3406740

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.
(2) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.95%, limits30-130%)

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62925	Q62974	Q62980	Q62982	Q62983	Q62984	Q62985	Q62986	Q62987		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/02		
	Units	**1-09-5M**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**5-09-MW3**	**1-09-3M**	**FR-1**	**2-09-MW4**	**RDL**	**QC Batch**
Volatiles												
Total Trihalomethanes	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3399844
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Bromoform	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Bromomethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
Carbon tetrachloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Chlorodibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	3411227
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	3411227
Chloroform	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Chloromethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
1,2-dibromoethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,2-dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,3-dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,4-dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1-dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,2-dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1-dichloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
cis-1,2-dichloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
trans-1,2-dichloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Dichloromethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
1,2-dichloropropane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
cis-1,3-dichloropropene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
trans-1,3-dichloropropene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Methyl methacrylate	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Methyl-tert-butylether (MTBE)	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Styrene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1,1,2-tetrachloroethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
1,1,2,2-tetrachloroethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
Tetrachloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,2,3-trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	3411227
1,2,4-trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	3411227
1,3,5-trichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1,1-trichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1,2-trichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Trichloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Trichlorofluoromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62925	Q62974	Q62980	Q62982	Q62983	Q62984	Q62985	Q62986	Q62987		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/02		
	Units	**1-09-5M**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**5-09-MW3**	**1-09-3M**	**FR-1**	**2-09-MW4**	**RDL**	**QC Batch**
1,2,4-trimethylbenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	35	<0.5	0.5	<0.5	0.5	3411227
1,3,5-trimethylbenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	8.8	<0.5	2.0	<0.5	0.5	3411227
Vinyl chloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	111	110	111	111	113	108	112	115	114		3411227
D4-1,2-DICHLOROETHANE (sur.)	%	97	89	95	89	91	91	86	86	94		3411227
D8-TOLUENE (sur.)	%	101	104	102	103	103	103	104	106	103		3411227

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62989		Q62990			Q62991		Q62992		Q62995		
Sampling Date		2009/09/02		2009/09/01			2009/09/02		2009/09/02		2009/09/01		
	Units	**3-09-5M**	**RDL**	**6-09-MW1**	**RDL**	**QC Batch**	**3-09-4M**	**RDL**	**3-09-6M**	**QC Batch**	**1-09-4M**	**RDL**	**QC Batch**
Volatiles													
Total Trihalomethanes	ug/L	<2	2	<2	2	3399844	<2	2	<2	3399844	<2	2	3410299
Bromodichloromethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Bromoform	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Bromomethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	<2	2	3410851
Carbon tetrachloride	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Chlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Chlorodibromomethane	ug/L	<1	1	<1	1	3411227	<1	1	<1	3412798	<1	1	3410851
Chloroethane	ug/L	<1	1	<1	1	3411227	<1	1	<1	3412798	<1	1	3410851
Chloroform	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Chloromethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	51	2	3410851
1,2-dibromoethane	ug/L	7.8	0.5	<0.5	0.5	3411227	150(1)	5	<0.5	3412798	<0.5	0.5	3410851
1,2-dichlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,3-dichlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,4-dichlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,1-dichloroethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,2-dichloroethane	ug/L	18	0.5	<0.5	0.5	3411227	14	0.5	1.8	3412798	<0.5	0.5	3410851
1,1-dichloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
cis-1,2-dichloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
trans-1,2-dichloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Dichloromethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	<2	2	3410851
1,2-dichloropropane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
cis-1,3-dichloropropene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
trans-1,3-dichloropropene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Methyl methacrylate	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Methyl-tert-butylether (MTBE)	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Styrene	ug/L	<0.5	0.5	<0.5	0.5	3411227	1.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,1,1,2-tetrachloroethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	<2	2	3410851
1,1,2,2-tetrachloroethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	<2	2	3410851
Tetrachloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,2,3-trichlorobenzene	ug/L	<1	1	<1	1	3411227	<1	1	<1	3412798	<1	1	3410851
1,2,4-trichlorobenzene	ug/L	<1	1	<1	1	3411227	<1	1	<1	3412798	<1	1	3410851
1,3,5-trichlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,1,1-trichloroethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,1,2-trichloroethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Trichloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62989		Q62990			Q62991		Q62992		Q62995		
Sampling Date		2009/09/02		2009/09/01			2009/09/02		2009/09/02		2009/09/01		
	Units	**3-09-5M**	**RDL**	**6-09-MW1**	**RDL**	**QC Batch**	**3-09-4M**	**RDL**	**3-09-6M**	**QC Batch**	**1-09-4M**	**RDL**	**QC Batch**
Trichlorofluoromethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,2,4-trimethylbenzene	ug/L	200(1)	5	0.6	0.5	3411227	590(1)	5	23	3412798	<0.5	0.5	3410851
1,3,5-trimethylbenzene	ug/L	62	0.5	2.3	0.5	3411227	170(1)	5	7.3	3412798	<0.5	0.5	3410851
Vinyl chloride	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Surrogate Recovery (%)													
4-BROMOFLUOROBENZENE (sur.)	%	103		111		3411227	107		102	3412798	97		3410851
D4-1,2-DICHLOROETHANE (sur.)	%	86		84		3411227	92		95	3412798	94		3410851
D8-TOLUENE (sur.)	%	103		106		3411227	103		103	3412798	103		3410851

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Package 1	6.0°C
Package 2	5.7°C
Package 3	6.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Pesticide Scan report is attached to this file. This was analyzed at our Ontario lab. Their reference number for these results are A9B7614.

AT1 BTEX AND F1-F4 IN WATER (WATER) Comments

Sample Q62991-02 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to dilution to bring analyte within the calibrated range.

REGULATED METALS (CCME/AT1) - DISSOLVED Comments

Sample Q62925-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62974-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62980-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62982-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62983-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62984-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62985-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62986-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62987-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62989-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62990-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62991-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62992-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62995-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

SEMIVOLATILE ORGANICS BY GC-MS (WATER) Comments

Sample Q62995-02 Polycyclic Aromatic Hydrocarbons: Sample extracted past method-specified hold time.

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3399997	4-BROMOFLUOROBENZENE (sur.)	2009/09/09			105	70 - 130	93	%		
3399997	D4-1,2-DICHLOROETHANE (sur.)	2009/09/09			88	70 - 130	83	%		
3399997	D8-TOLUENE (sur.)	2009/09/09			93	70 - 130	98	%		
3399997	Benzene	2009/09/09			102	70 - 130	<0.4	ug/L	NC	40
3399997	Toluene	2009/09/09			107	70 - 130	<0.4	ug/L	NC	40
3399997	Ethylbenzene	2009/09/09			109	70 - 130	<0.4	ug/L	NC	40
3399997	o-Xylene	2009/09/09			114	70 - 130	<0.4	ug/L	NC	40
3399997	m & p-Xylene	2009/09/09			112	70 - 130	<0.8	ug/L	NC	40
3399997	(C6-C10)	2009/09/09			102	70 - 130	<100	ug/L	NC	40
3399997	Xylenes (Total)	2009/09/09					<0.8	ug/L	NC	40
3399997	F1 (C6-C10) - BTEX	2009/09/09					<100	ug/L	NC	40
3400001	NONACHLOROBIPHENYL (sur.)	2009/09/09			105	30 - 130	96	%		
3400001	Aroclor 1260	2009/09/09	107	30 - 130	106	30 - 130	<0.000050	mg/L	NC	40
3400001	Aroclor 1016	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1221	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1232	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1242	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1248	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1254	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1262	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1268	2009/09/09					<0.000050	mg/L	NC	40
3400001	Total Aroclors	2009/09/09					<0.000050	mg/L	NC	40
3400578	F2 (C10-C16 Hydrocarbons)	2009/09/09			96	70 - 130	<0.1	mg/L	NC	40
3400578	F3 (C16-C34 Hydrocarbons)	2009/09/09			100	70 - 130	<0.1	mg/L	NC	40
3400578	F4 (C34-C50 Hydrocarbons)	2009/09/09			118	70 - 130	<0.1	mg/L	NC	40
3400578	O-TERPHENYL (sur.)	2009/09/08			99	70 - 130	101	%		
3400579	Dissolved Aluminum (Al)	2009/09/08	NC	80 - 120	104	80 - 120	<0.001	mg/L	8.3	20
3400579	Dissolved Antimony (Sb)	2009/09/08	107	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20
3400579	Dissolved Arsenic (As)	2009/09/08	93	80 - 120	98	80 - 108	<0.0002	mg/L	NC	20
3400579	Dissolved Beryllium (Be)	2009/09/08	95	80 - 120	110	80 - 120	<0.001	mg/L	NC	20
3400579	Dissolved Chromium (Cr)	2009/09/08	NC	80 - 120	90	80 - 120	<0.001	mg/L	NC	20
3400579	Dissolved Cobalt (Co)	2009/09/08	88	80 - 120	95	80 - 120	<0.0003	mg/L	NC	20
3400579	Dissolved Copper (Cu)	2009/09/08	NC	80 - 120	91	81 - 114	<0.0002	mg/L	NC	20
3400579	Dissolved Lead (Pb)	2009/09/08	90	80 - 120	90	82 - 112	<0.0002	mg/L	NC	20
3400579	Dissolved Molybdenum (Mo)	2009/09/08	99	80 - 120	95	80 - 106	<0.0002	mg/L	NC	20
3400579	Dissolved Nickel (Ni)	2009/09/08	NC	80 - 120	93	82 - 112	<0.0005	mg/L	NC	20
3400579	Dissolved Selenium (Se)	2009/09/08	94	80 - 120	100	81 - 120	<0.0002	mg/L	NC	20
3400579	Dissolved Silver (Ag)	2009/09/08	93	80 - 120	97	80 - 117	<0.0001	mg/L	NC	20
3400579	Dissolved Thallium (Tl)	2009/09/08	91	80 - 120	91	80 - 120	<0.0002	mg/L	NC	20
3400579	Dissolved Tin (Sn)	2009/09/08	99	80 - 120	91	80 - 112	<0.001	mg/L	NC	20

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3400579	Dissolved Titanium (Ti)	2009/09/08	82	80 - 120	92	80 - 110	<0.001	mg/L	NC	20
3400579	Dissolved Uranium (U)	2009/09/08	NC	80 - 120	89	80 - 114	<0.0001	mg/L	2.4	20
3400579	Dissolved Vanadium (V)	2009/09/08	NC	80 - 120	96	80 - 119	<0.001	mg/L	NC	20
3400579	Dissolved Zinc (Zn)	2009/09/08	87	80 - 120	93	80 - 120	<0.003	mg/L	NC	20
3400603	D10-ANTHRACENE (sur.)	2009/09/10			111	30 - 130	94	%		
3400603	D12-BENZO(A)PYRENE (sur.)	2009/09/10			88	30 - 130	67	%		
3400603	D8-ACENAPHTHYLENE (sur.)	2009/09/10			98	30 - 130	86	%		
3400603	TERPHENYL-D14 (sur.)	2009/09/10			102	30 - 130	90	%		
3400603	Acenaphthene	2009/09/11	68	30 - 130	100	30 - 130	<0.10	ug/L	NC	40
3400603	Acenaphthylene	2009/09/11	71	30 - 130	95	30 - 130	<0.10	ug/L	NC	40
3400603	Acridine	2009/09/11	52	30 - 130	74	30 - 130	<0.20	ug/L	NC	40
3400603	Anthracene	2009/09/11	36	30 - 130	88	30 - 130	<0.010	ug/L	NC	40
3400603	Fluoranthene	2009/09/11	33	30 - 130	94	30 - 130	<0.040	ug/L	NC	40
3400603	Fluorene	2009/09/11	64	30 - 130	98	30 - 130	<0.050	ug/L	NC	40
3400603	2-Methylnaphthalene	2009/09/11	NC	30 - 130	93	30 - 130	<0.10	ug/L	6.3	40
3400603	Naphthalene	2009/09/11	NC	30 - 130	99	30 - 130	<0.10	ug/L	7.4	40
3400603	Phenanthrene	2009/09/11	57	30 - 130	99	30 - 130	<0.050	ug/L	NC	40
3400603	Pyrene	2009/09/11	31	30 - 130	93	30 - 130	<0.020	ug/L	NC	40
3400603	Quinoline	2009/09/11	127	30 - 130	85	30 - 130	<0.20	ug/L	NC	40
3400603	Benzo(a)anthracene	2009/09/11			79	30 - 130	<0.0085	ug/L	NC	40
3400603	Benzo(b&j)fluoranthene	2009/09/11			75	30 - 130	<0.0085	ug/L	NC	40
3400603	Benzo(k)fluoranthene	2009/09/11			90	30 - 130	<0.0085	ug/L	NC	40
3400603	Benzo(g,h,i)perylene	2009/09/11			101	30 - 130	<0.0085	ug/L	NC	40
3400603	Benzo(c)phenanthrene	2009/09/11			86	30 - 130	<0.050	ug/L	NC	40
3400603	Benzo(a)pyrene	2009/09/11			81	30 - 130	<0.0075	ug/L	NC	40
3400603	Benzo[e]pyrene	2009/09/11			81	30 - 130	<0.050	ug/L	NC	40
3400603	Chrysene	2009/09/11			95	30 - 130	<0.0085	ug/L	NC	40
3400603	Dibenz(a,h)anthracene	2009/09/11			117	30 - 130	<0.0075	ug/L	NC	40
3400603	Dibenzo(a,e)pyrene	2009/09/11			96	30 - 130	<0.10	ug/L	NC	40
3400603	Dibenzo(a,h)pyrene	2009/09/11			127	30 - 130	<0.10	ug/L	NC	40
3400603	Dibenzo(a,i)pyrene	2009/09/11			75	30 - 130	<0.10	ug/L	NC	40
3400603	Dibenzo(a,l)pyrene	2009/09/11			96	30 - 130	<0.10	ug/L	NC	40
3400603	Indeno(1,2,3-cd)pyrene	2009/09/11			97	30 - 130	<0.0085	ug/L	NC	40
3400603	Perylene	2009/09/11			101	30 - 130	<0.050	ug/L	NC	40
3402945	Methyl Sulfone (sur.)	2009/09/10			90	70 - 130	99	%		
3402945	Ethylene Glycol	2009/09/10			95	70 - 130	<10	mg/L	NC	20
3402945	Diethylene Glycol	2009/09/10			97	70 - 130	<10	mg/L	NC	20
3402945	Triethylene Glycol	2009/09/10			105	70 - 130	<10	mg/L	NC	20
3402945	Tetraethylene Glycol	2009/09/10			115	70 - 130	<10	mg/L	NC	20
3402945	Propylene Glycol	2009/09/10			96	70 - 130	<10	mg/L	NC	20

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3403545	Dissolved Barium (Ba)	2009/09/09			107	80 - 110	<0.01	mg/L		
3403545	Dissolved Boron (B)	2009/09/09			111	84 - 117	0.02, RDL=0.02	mg/L		
3403545	Dissolved Calcium (Ca)	2009/09/09			109	88 - 115	<0.3	mg/L		
3403545	Dissolved Iron (Fe)	2009/09/09			103	81 - 111	<0.06	mg/L		
3403545	Dissolved Lithium (Li)	2009/09/09			107	82 - 117	<0.02	mg/L		
3403545	Dissolved Magnesium (Mg)	2009/09/09			114	87 - 117	<0.2	mg/L		
3403545	Dissolved Manganese (Mn)	2009/09/09			107	85 - 110	<0.004	mg/L		
3403545	Dissolved Phosphorus (P)	2009/09/09			112	87 - 116	<0.1	mg/L		
3403545	Dissolved Potassium (K)	2009/09/09			110	85 - 117	<0.3	mg/L		
3403545	Dissolved Silicon (Si)	2009/09/09			103	80 - 120	<0.1	mg/L		
3403545	Dissolved Sodium (Na)	2009/09/09			104	84 - 118	<0.5	mg/L		
3403545	Dissolved Strontium (Sr)	2009/09/09			106	83 - 113	<0.02	mg/L		
3403545	Dissolved Sulphur (S)	2009/09/09					<0.2	mg/L		
3406740	Dissolved Mercury (Hg)	2009/09/11			117	80 - 120	0.001, RDL=0.001	ug/L	NC	20
3410303	Dissolved Barium (Ba)	2009/09/11			89	80 - 110	<0.01	mg/L		
3410303	Dissolved Boron (B)	2009/09/11			94	84 - 117	<0.02	mg/L		
3410303	Dissolved Calcium (Ca)	2009/09/11			95	88 - 115	<0.3	mg/L		
3410303	Dissolved Iron (Fe)	2009/09/11			87	81 - 111	<0.06	mg/L		
3410303	Dissolved Lithium (Li)	2009/09/11			93	82 - 117	<0.02	mg/L		
3410303	Dissolved Magnesium (Mg)	2009/09/11			97	87 - 117	<0.2	mg/L		
3410303	Dissolved Manganese (Mn)	2009/09/11			92	85 - 110	<0.004	mg/L		
3410303	Dissolved Phosphorus (P)	2009/09/11			96	87 - 116	<0.1	mg/L		
3410303	Dissolved Potassium (K)	2009/09/11			95	85 - 117	<0.3	mg/L		
3410303	Dissolved Silicon (Si)	2009/09/11			90	80 - 120	<0.1	mg/L		
3410303	Dissolved Sodium (Na)	2009/09/11			94	84 - 118	<0.5	mg/L	2.6	20
3410303	Dissolved Strontium (Sr)	2009/09/11			90	83 - 113	<0.02	mg/L		
3410303	Dissolved Sulphur (S)	2009/09/11					<0.2	mg/L		
3410453	F2 (C10-C16 Hydrocarbons)	2009/09/13			86	70 - 130	<0.1	mg/L	NC	40
3410453	F3 (C16-C34 Hydrocarbons)	2009/09/13			101	70 - 130	<0.1	mg/L	NC	40
3410453	F4 (C34-C50 Hydrocarbons)	2009/09/13			110	70 - 130	<0.1	mg/L	NC	40
3410453	O-TERPHENYL (sur.)	2009/09/13			102	70 - 130	104	%		
3410454	D10-ANTHRACENE (sur.)	2009/09/14			114	30 - 130	119	%		
3410454	D12-BENZO(A)PYRENE (sur.)	2009/09/14			104	30 - 130	110	%		
3410454	D8-ACENAPHTHYLENE (sur.)	2009/09/14			89	30 - 130	93	%		
3410454	TERPHENYL-D14 (sur.)	2009/09/14			101	30 - 130	104	%		
3410454	Acenaphthene	2009/09/14			109	30 - 130	<0.10	ug/L	NC	40
3410454	Acenaphthylene	2009/09/14			103	30 - 130	<0.10	ug/L	NC	40
3410454	Acridine	2009/09/14			89	30 - 130	<0.20	ug/L	NC	40
3410454	Anthracene	2009/09/14			85	30 - 130	<0.010	ug/L	NC	40
3410454	Benzo(a)anthracene	2009/09/14			107	30 - 130	<0.0085	ug/L	NC	40

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3410454	Benzo(b&j)fluoranthene	2009/09/14			111	30 - 130	<0.0085	ug/L	NC	40
3410454	Benzo(k)fluoranthene	2009/09/14			109	30 - 130	<0.0085	ug/L	NC	40
3410454	Benzo(g,h,i)perylene	2009/09/14			88	30 - 130	<0.0085	ug/L	NC	40
3410454	Benzo(c)phenanthrene	2009/09/14			117	30 - 130	<0.050	ug/L	NC	40
3410454	Benzo(a)pyrene	2009/09/14			104	30 - 130	<0.0075	ug/L	NC	40
3410454	Benzo[e]pyrene	2009/09/14			102	30 - 130	<0.050	ug/L	NC	40
3410454	Chrysene	2009/09/14			129	30 - 130	<0.0085	ug/L	NC	40
3410454	Dibenz(a,h)anthracene	2009/09/14			111	30 - 130	<0.0075	ug/L	NC	40
3410454	Dibenzo(a,e)pyrene	2009/09/14			93	30 - 130	<0.10	ug/L	NC	40
3410454	Dibenzo(a,h)pyrene	2009/09/14			128	30 - 130	<0.10	ug/L	NC	40
3410454	Dibenzo(a,i)pyrene	2009/09/14			100	30 - 130	<0.10	ug/L	NC	40
3410454	Dibenzo(a,l)pyrene	2009/09/14			36	30 - 130	<0.10	ug/L	NC	40
3410454	Fluoranthene	2009/09/14			109	30 - 130	<0.040	ug/L	NC	40
3410454	Fluorene	2009/09/14			108	30 - 130	<0.050	ug/L	NC	40
3410454	Indeno(1,2,3-cd)pyrene	2009/09/14			95	30 - 130	<0.0085	ug/L	NC	40
3410454	2-Methylnaphthalene	2009/09/14			99	30 - 130	<0.10	ug/L	NC	40
3410454	Naphthalene	2009/09/14			105	30 - 130	<0.10	ug/L	NC	40
3410454	Phenanthrene	2009/09/14			110	30 - 130	<0.050	ug/L	NC	40
3410454	Perylene	2009/09/14			107	30 - 130	<0.050	ug/L	NC	40
3410454	Pyrene	2009/09/14			105	30 - 130	<0.020	ug/L	NC	40
3410454	Quinoline	2009/09/14			102	30 - 130	<0.20	ug/L	NC	40
3410851	4-BROMOFLUOROBENZENE (sur.)	2009/09/12			99	70 - 130	96	%		
3410851	D4-1,2-DICHLOROETHANE (sur.)	2009/09/12			103	70 - 130	91	%		
3410851	D8-TOLUENE (sur.)	2009/09/12			111	70 - 130	103	%		
3410851	Bromodichloromethane	2009/09/14			93	70 - 130	<0.5	ug/L	NC	40
3410851	Bromoform	2009/09/14			83	70 - 130	<0.5	ug/L	NC	40
3410851	Bromomethane	2009/09/14			76	70 - 130	<2	ug/L	NC	40
3410851	Carbon tetrachloride	2009/09/14			79	70 - 130	<0.5	ug/L	NC	40
3410851	Chlorobenzene	2009/09/14			90	70 - 130	<0.5	ug/L	NC	40
3410851	Chlorodibromomethane	2009/09/14			92	70 - 130	<1	ug/L	NC	40
3410851	Chloroethane	2009/09/14			74	70 - 130	<1	ug/L	NC	40
3410851	Chloromethane	2009/09/14			73	70 - 130	<2	ug/L	33.2	40
3410851	1,2-dibromoethane	2009/09/14			101	70 - 130	<0.5	ug/L	NC	40
3410851	1,2-dichlorobenzene	2009/09/14			86	70 - 130	<0.5	ug/L	NC	40
3410851	1,3-dichlorobenzene	2009/09/14			90	70 - 130	<0.5	ug/L	NC	40
3410851	1,4-dichlorobenzene	2009/09/14			88	70 - 130	<0.5	ug/L	NC	40
3410851	1,1-dichloroethane	2009/09/14			87	70 - 130	<0.5	ug/L	NC	40
3410851	1,2-dichloroethane	2009/09/14			96	70 - 130	<0.5	ug/L	NC	40
3410851	1,1-dichloroethene	2009/09/14			75	70 - 130	<0.5	ug/L	NC	40
3410851	cis-1,2-dichloroethene	2009/09/14			89	70 - 130	<0.5	ug/L	NC	40

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3410851	trans-1,2-dichloroethene	2009/09/14			82	70 - 130	<0.5	ug/L	NC	40
3410851	Dichloromethane	2009/09/14			93	70 - 130	<2	ug/L	NC	40
3410851	1,2-dichloropropane	2009/09/14			91	70 - 130	<0.5	ug/L	NC	40
3410851	trans-1,3-dichloropropene	2009/09/14			87	70 - 130	<0.5	ug/L	NC	40
3410851	Methyl methacrylate	2009/09/14			81	70 - 130	<0.5	ug/L	NC	40
3410851	Styrene	2009/09/14			80	70 - 130	<0.5	ug/L	NC	40
3410851	1,1,1,2-tetrachloroethane	2009/09/14			99	70 - 130	<2	ug/L	NC	40
3410851	1,1,2,2-tetrachloroethane	2009/09/14			98	70 - 130	<2	ug/L	NC	40
3410851	Tetrachloroethene	2009/09/14			89	70 - 130	<0.5	ug/L	NC	40
3410851	1,2,3-trichlorobenzene	2009/09/14			74	70 - 130	<1	ug/L	NC	40
3410851	1,2,4-trichlorobenzene	2009/09/14			79	70 - 130	<1	ug/L	NC	40
3410851	1,3,5-trichlorobenzene	2009/09/14			84	70 - 130	<0.5	ug/L	NC	40
3410851	1,1,1-trichloroethane	2009/09/14			79	70 - 130	<0.5	ug/L	NC	40
3410851	Trichloroethene	2009/09/14			89	70 - 130	<0.5	ug/L	NC	40
3410851	Trichlorofluoromethane	2009/09/14			69 (1)	70 - 130	<0.5	ug/L	NC	40
3410851	1,2,4-trimethylbenzene	2009/09/14			80	70 - 130	<0.5	ug/L	5.9	40
3410851	1,3,5-trimethylbenzene	2009/09/14			84	70 - 130	<0.5	ug/L	8.7	40
3410851	Chloroform	2009/09/14			94	70 - 130	<0.5	ug/L	NC	40
3410851	cis-1,3-dichloropropene	2009/09/14			83	70 - 130	<0.5	ug/L	NC	40
3410851	Methyl-tert-butylether(MTBE)	2009/09/14			70	70 - 130	<0.5	ug/L	NC	40
3410851	1,1,2-trichloroethane	2009/09/14			104	70 - 130	<0.5	ug/L	NC	40
3410851	Vinyl chloride	2009/09/14			43 (1)	70 - 130	<0.5	ug/L	NC	40
3410853	4-BROMOFLUOROBENZENE (sur.)	2009/09/11			100	70 - 130	96	%		
3410853	D4-1,2-DICHLOROETHANE (sur.)	2009/09/11			102	70 - 130	98	%		
3410853	D8-TOLUENE (sur.)	2009/09/11			98	70 - 130	97	%		
3410853	Benzene	2009/09/14			113	70 - 130	<0.4	ug/L	NC	40
3410853	Toluene	2009/09/14			112	70 - 130	<0.4	ug/L	NC	40
3410853	Ethylbenzene	2009/09/14			112	70 - 130	<0.4	ug/L	NC	40
3410853	o-Xylene	2009/09/14			115	70 - 130	<0.4	ug/L	NC	40
3410853	m & p-Xylene	2009/09/14			118	70 - 130	<0.8	ug/L	NC	40
3410853	(C6-C10)	2009/09/14			98	70 - 130	<100	ug/L	NC	40
3410853	Xylenes (Total)	2009/09/14					<0.8	ug/L	NC	40
3410853	F1 (C6-C10) - BTEX	2009/09/14					<100	ug/L	NC	40
3411227	4-BROMOFLUOROBENZENE (sur.)	2009/09/11			99	70 - 130	106	%		
3411227	D4-1,2-DICHLOROETHANE (sur.)	2009/09/11			103	70 - 130	99	%		
3411227	D8-TOLUENE (sur.)	2009/09/11			98	70 - 130	101	%		
3411227	Bromodichloromethane	2009/09/11			110	70 - 130	<0.5	ug/L	NC	40
3411227	Bromoform	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40
3411227	Bromomethane	2009/09/11			109	70 - 130	<2	ug/L	NC	40
3411227	Carbon tetrachloride	2009/09/11			115	70 - 130	<0.5	ug/L	NC	40

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3411227	Chlorobenzene	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40
3411227	Chlorodibromomethane	2009/09/11			107	70 - 130	<1	ug/L	NC	40
3411227	Chloroethane	2009/09/11			102	70 - 130	<1	ug/L	NC	40
3411227	Chloroform	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40
3411227	Chloromethane	2009/09/11			113	70 - 130	<2	ug/L	NC	40
3411227	1,2-dibromoethane	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40
3411227	1,2-dichlorobenzene	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40
3411227	1,3-dichlorobenzene	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40
3411227	1,4-dichlorobenzene	2009/09/11			102	70 - 130	<0.5	ug/L	NC	40
3411227	1,1-dichloroethane	2009/09/11			95	70 - 130	<0.5	ug/L	NC	40
3411227	1,2-dichloroethane	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40
3411227	1,1-dichloroethene	2009/09/11			110	70 - 130	<0.5	ug/L	NC	40
3411227	cis-1,2-dichloroethene	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40
3411227	trans-1,2-dichloroethene	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40
3411227	Dichloromethane	2009/09/11			105	70 - 130	<2	ug/L	NC	40
3411227	1,2-dichloropropane	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40
3411227	cis-1,3-dichloropropene	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40
3411227	trans-1,3-dichloropropene	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40
3411227	Methyl methacrylate	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40
3411227	Methyl-tert-butylether(MTBE)	2009/09/11			85	70 - 130	<0.5	ug/L	NC	40
3411227	Styrene	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40
3411227	1,1,1,2-tetrachloroethane	2009/09/11			105	70 - 130	<2	ug/L	NC	40
3411227	1,1,2,2-tetrachloroethane	2009/09/11			106	70 - 130	<2	ug/L	NC	40
3411227	Tetrachloroethene	2009/09/11			95	70 - 130	<0.5	ug/L	NC	40
3411227	1,2,3-trichlorobenzene	2009/09/11			92	70 - 130	<1	ug/L	NC	40
3411227	1,2,4-trichlorobenzene	2009/09/11			97	70 - 130	<1	ug/L	NC	40
3411227	1,3,5-trichlorobenzene	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40
3411227	1,1,1-trichloroethane	2009/09/11			103	70 - 130	<0.5	ug/L	NC	40
3411227	1,1,2-trichloroethane	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40
3411227	Trichloroethene	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40
3411227	Trichlorofluoromethane	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40
3411227	1,2,4-trimethylbenzene	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40
3411227	1,3,5-trimethylbenzene	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40
3411227	Vinyl chloride	2009/09/11			127	70 - 130	<0.5	ug/L	NC	40
3412196	Dissolved Aluminum (Al)	2009/09/11			95	80 - 120	<0.001	mg/L	NC	20
3412196	Dissolved Antimony (Sb)	2009/09/11			91	80 - 120	<0.0002	mg/L	NC	20
3412196	Dissolved Arsenic (As)	2009/09/11			87	80 - 108	<0.0002	mg/L	NC	20
3412196	Dissolved Beryllium (Be)	2009/09/11			98	80 - 120	<0.001	mg/L	NC	20
3412196	Dissolved Chromium (Cr)	2009/09/11			85	80 - 120	<0.001	mg/L	NC	20
3412196	Dissolved Cobalt (Co)	2009/09/11			90	80 - 120	<0.0003	mg/L	NC	20

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3412196	Dissolved Copper (Cu)	2009/09/11			85	81 - 114	<0.0002	mg/L	NC	20
3412196	Dissolved Lead (Pb)	2009/09/11			88	82 - 112	<0.0002	mg/L	NC	20
3412196	Dissolved Molybdenum (Mo)	2009/09/11			84	80 - 106	<0.0002	mg/L	NC	20
3412196	Dissolved Nickel (Ni)	2009/09/11			84	82 - 112	<0.0005	mg/L	NC	20
3412196	Dissolved Selenium (Se)	2009/09/11			85	81 - 120	<0.0002	mg/L	NC	20
3412196	Dissolved Silver (Ag)	2009/09/11			89	80 - 117	<0.0001	mg/L	NC	20
3412196	Dissolved Thallium (Tl)	2009/09/11			87	80 - 120	<0.0002	mg/L	NC	20
3412196	Dissolved Tin (Sn)	2009/09/11			87	80 - 112	<0.001	mg/L	NC	20
3412196	Dissolved Titanium (Ti)	2009/09/11			86	80 - 110	<0.001	mg/L	NC	20
3412196	Dissolved Uranium (U)	2009/09/11			84	80 - 114	<0.0001	mg/L	NC	20
3412196	Dissolved Vanadium (V)	2009/09/11			88	80 - 119	<0.001	mg/L	NC	20
3412196	Dissolved Zinc (Zn)	2009/09/11			87	80 - 120	<0.003	mg/L	NC	20
3412798	4-BROMOFLUOROBENZENE (sur.)	2009/09/12			100	70 - 130	105	%		
3412798	D4-1,2-DICHLOROETHANE (sur.)	2009/09/12			98	70 - 130	104	%		
3412798	D8-TOLUENE (sur.)	2009/09/12			101	70 - 130	101	%		
3412798	Bromodichloromethane	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Bromoform	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Bromomethane	2009/09/12			78	70 - 130	<2	ug/L		
3412798	Carbon tetrachloride	2009/09/12			99	70 - 130	<0.5	ug/L		
3412798	Chlorobenzene	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	Chlorodibromomethane	2009/09/12			97	70 - 130	<1	ug/L		
3412798	Chloroethane	2009/09/12			98	70 - 130	<1	ug/L		
3412798	Chloroform	2009/09/12			99	70 - 130	<0.5	ug/L		
3412798	Chloromethane	2009/09/12			94	70 - 130	<2	ug/L		
3412798	1,2-dibromoethane	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	1,2-dichlorobenzene	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	1,3-dichlorobenzene	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	1,4-dichlorobenzene	2009/09/12			94	70 - 130	<0.5	ug/L		
3412798	1,1-dichloroethane	2009/09/12			96	70 - 130	<0.5	ug/L		
3412798	1,2-dichloroethane	2009/09/12			96	70 - 130	<0.5	ug/L		
3412798	1,1-dichloroethene	2009/09/12			99	70 - 130	<0.5	ug/L		
3412798	cis-1,2-dichloroethene	2009/09/12			99	70 - 130	<0.5	ug/L		
3412798	trans-1,2-dichloroethene	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Dichloromethane	2009/09/12			92	70 - 130	<2	ug/L		
3412798	1,2-dichloropropane	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	cis-1,3-dichloropropene	2009/09/12			93	70 - 130	<0.5	ug/L		
3412798	trans-1,3-dichloropropene	2009/09/12			92	70 - 130	<0.5	ug/L		
3412798	Methyl methacrylate	2009/09/12			101	70 - 130	<0.5	ug/L		
3412798	Methyl-tert-butylether (MTBE)	2009/09/12			108	70 - 130	<0.5	ug/L		
3412798	Styrene	2009/09/12			99	70 - 130	<0.5	ug/L		

Maxxam Job #: A948731
Report Date: 2009/09/22

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3412798	1,1,1,2-tetrachloroethane	2009/09/12			98	70 - 130	<2	ug/L		
3412798	1,1,2,2-tetrachloroethane	2009/09/12			99	70 - 130	<2	ug/L		
3412798	Tetrachloroethene	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	1,2,3-trichlorobenzene	2009/09/12			85	70 - 130	<1	ug/L		
3412798	1,2,4-trichlorobenzene	2009/09/12			90	70 - 130	<1	ug/L		
3412798	1,3,5-trichlorobenzene	2009/09/12			101	70 - 130	<0.5	ug/L		
3412798	1,1,1-trichloroethane	2009/09/12			96	70 - 130	<0.5	ug/L		
3412798	1,1,2-trichloroethane	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Trichloroethene	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Trichlorofluoromethane	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	1,2,4-trimethylbenzene	2009/09/12			101	70 - 130	<0.5	ug/L		
3412798	1,3,5-trimethylbenzene	2009/09/12			101	70 - 130	<0.5	ug/L		
3412798	Vinyl chloride	2009/09/12			106	70 - 130	<0.5	ug/L		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

012(3)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80782 **CHAIN OF CUSTODY**

Page: 1 of 2

Invoice To: Require Report? Yes ☐ No ☐
Company Name: Franz environmental
Contact Name: James Smith
Address: 308-108 Mainland St Van
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
jsmith@franzenvironmental.com
jkeenlside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: VDC/JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☐ CCME
☒ OTHER Ontario

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter / Flashpoint / pH (1:1)	TCLP / BTEX / Metals	WATERS: BTEX F1 ☒ VOCs	BTEX F1-F2 ☒ / BTEX F1-F4 ☐	Routine Water Package: Turb / F	REGULATED METALS (CCME / AT1)[3]: Total Preserved / Not Preserved	Dissolved Preserved Filtered / Not Preserved Filtered	Mercury: Total / Dissolved	Ammonia / TKN / COD / TOC / DOC	OTHER TEST(S): PAH	PCBs	9 Metals	Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	1-09-5M	W	2009/09/01								X	X			X	X		X		X			15
2	1-09-6M	W	2009/09/01								X	X			X	X			X			12	
3	1-09-2M	W	2009/09/01								X	X			X	X							10
4	FR-2	W	2009/09/01															X		X			5
5	FR-3	W	2009/09/01								X	X			X	X			X				10
6	1-09-1M	W	2009/09/01								X	X			X	X							10
7	5-09-MW3	W	2009/09/01								X	X			X	X		X					12
8	1-09-3M	W	2009/09/01								X	X			X	X				X			11
9	FR-1	W	2009/09/01								X	X			X	X		X	ARRIVED AT DEPOT				12
10	2-09-MW4	W	2009/09/02								X	X			X	X		X	X	X	SEP 04 2009		15
11	3-09-5M		2009/09/02								X	X			X	X		X					12
12	6-09-MW1	W	2009/09/01								X	X			X	X		X	TEMP: 6.1 5.4.1				12

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: 0839

Relinquished By: Vanessa Dodd Date/Time: Sept 2/2009

Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

RECEIVED SEP 05 2009

JARS USED & NOT SUBMITTED: 15:SD,JC

Received By: 08/08/09 9:50 MW

CUSTODY SEAL (YES) / NO

Temperature: 1 4 1 / 1 2 1 / 1 3 1

Ice:

6175 See temp. tracking form.

012(3)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80781 **CHAIN OF CUSTODY**

Page: 2 of 2

Invoice To: Require Report? Yes ☐ No ☐	**Report To:**	
Company Name: FRANZ		PO # / AFE #:
Contact Name:		Quotation #:
Address: James smith		Project #: 1748-0901
		Project Name:
Prov: PC:	Prov: PC:	Location: Cambridge Bay
Contact #s: Ph: 604-632-9941 Fax:	Ph: Fax:	Sampler's Initials:

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
- ☐ AT1 _____
- ☐ CCME _____
- ☒ OTHER _____ ontario

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
- ☐ **RUSH** (Please ensure you contact the lab to reserve)
  Date Required: _____
- ☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	☐ Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS (footnotes defined on back): ☐ BTEX F1 ☒ VOCs	☐ BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☒ Preserved ☐ Not Filtered	Mercury ☐ Total ☒ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): PAH	*HOLD for 60 Days	# of Containers Submitted
1	3-09-4M	W	2009/09/02								X	X			X	X			X		12
2	3-09-6M	W	2009/09/02								X	X			X	X			X		12
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ARRIVED AT DEPOT:
SEP 04 2009
TEMP: 9/10/10

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: 0836

Relinquished By: Viviane Dolle Date/Time: Sept 2 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	05/09/09 9:50 BN	1 4 1 / 1 2 3 / 1 1 1	
	CUSTODY SEAL YES / NO		

Your Project #: A948731
Your C.O.C. #: N/A

Attention: Brian Issler
Maxxam Analytics
2021-41st Ave NE
Calgary, AB
T2E 6P2

Report Date: 2009/09/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B7614
Received: 2009/09/09, 08:48

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
OC Pesticides (Selected) & PCB (1)	2	2009/09/11	2009/09/12	CAM SOP-00307	SW846 8081,8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Marijane Cruz
14 Sep 2009 16:43:56 -04:00

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B7614
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A948731

ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)

Maxxam ID		DQ1891	DQ1892		
Sampling Date		2009/09/01	2009/09/02		
	Units	**Q62985-03R \ 1-09-3M**	**Q62987-03R \ 2-09-MW4**	**RDL**	**QC Batch**
Pesticides & Herbicides					
Aldrin + Dieldrin	ug/L	ND	ND	0.005	1936311
Hexachlorobutadiene	ug/L	ND	ND	0.009	1936311
Hexachlorocyclopentadiene	ug/L	ND	ND	0.02	1936311
Hexachloroethane	ug/L	ND	ND	0.01	1936311
Aldrin	ug/L	ND	ND	0.005	1936311
a-BHC	ug/L	ND	ND	0.005	1936311
b-BHC	ug/L	ND	ND	0.005	1936311
d-BHC	ug/L	ND	ND	0.005	1936311
a-Chlordane	ug/L	ND	ND	0.005	1936311
g-Chlordane	ug/L	ND	ND	0.005	1936311
Chlordane (Total)	ug/L	ND	ND	0.005	1936311
o,p-DDD	ug/L	ND	ND	0.005	1936311
p,p-DDD	ug/L	ND	ND	0.005	1936311
o,p-DDD + p,p-DDD	ug/L	ND	ND	0.005	1936311
o,p-DDE	ug/L	ND	ND	0.005	1936311
p,p-DDE	ug/L	ND	ND	0.005	1936311
o,p-DDE + p,p-DDE	ug/L	ND	ND	0.005	1936311
o,p-DDT	ug/L	ND	ND	0.005	1936311
p,p-DDT	ug/L	ND	ND	0.005	1936311
o,p-DDT + p,p-DDT	ug/L	ND	ND	0.005	1936311
DDT+ Metabolites	ug/L	ND	ND	0.005	1936311
Dieldrin	ug/L	ND	ND	0.005	1936311
Endosulfan I	ug/L	ND	ND	0.005	1936311
Endosulfan II	ug/L	ND	ND	0.005	1936311
Endosulfan sulfate	ug/L	ND	ND	0.005	1936311
Total Endosulfan	ug/L	ND	ND	0.005	1936311
Endrin	ug/L	ND	ND	0.005	1936311
Endrin aldehyde	ug/L	ND	ND	0.005	1936311
Endrin ketone	ug/L	ND	ND	0.005	1936311
Heptachlor	ug/L	ND	ND	0.005	1936311
Heptachlor epoxide	ug/L	ND	ND	0.005	1936311
Hexachlorobenzene	ug/L	ND	ND	0.005	1936311
Lindane	ug/L	ND	ND	0.003	1936311
Methoxychlor	ug/L	ND	ND	0.01	1936311

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7614
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A948731

ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)

Maxxam ID		DQ1891	DQ1892		
Sampling Date		2009/09/01	2009/09/02		
	Units	**Q62985-03R \ 1-09-3M**	**Q62987-03R \ 2-09-MW4**	**RDL**	**QC Batch**
Mirex	ug/L	ND	ND	0.005	1936311
Octachlorostyrene	ug/L	ND	ND	0.005	1936311
Toxaphene	ug/L	ND	ND	0.2	1936311
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	76	105		1936311
Decachlorobiphenyl	%	104	75		1936311

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7614
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A948731

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1936311	2,4,5,6-Tetrachloro-m-xylene	2009/09/12	110	40 - 130	112	40 - 130	108	%		
1936311	Decachlorobiphenyl	2009/09/12	104	40 - 130	85	40 - 130	87	%		
1936311	Hexachlorobutadiene	2009/09/12	88	30 - 130	123	30 - 130	ND, RDL=0.009	ug/L		
1936311	Hexachlorocyclopentadiene	2009/09/12	77	30 - 130	109	30 - 130	ND, RDL=0.02	ug/L		
1936311	Hexachloroethane	2009/09/12	97	N/A	123	N/A	ND, RDL=0.01	ug/L		
1936311	Aldrin	2009/09/12	112	30 - 130	102	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	a-BHC	2009/09/12	122	30 - 130	86	30 - 130	ND, RDL=0.005	ug/L		
1936311	b-BHC	2009/09/12	107	30 - 130	114	30 - 130	ND, RDL=0.005	ug/L		
1936311	d-BHC	2009/09/12	110	30 - 130	119	30 - 130	ND, RDL=0.005	ug/L		
1936311	a-Chlordane	2009/09/12	112	30 - 130	114	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	g-Chlordane	2009/09/12	117	30 - 130	107	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	o,p-DDD	2009/09/12	107	40 - 130	106	40 - 130	ND, RDL=0.005	ug/L		
1936311	p,p-DDD	2009/09/12	105	30 - 130	100	30 - 130	ND, RDL=0.005	ug/L		
1936311	o,p-DDE	2009/09/12	113	40 - 130	104	40 - 130	ND, RDL=0.005	ug/L		
1936311	p,p-DDE	2009/09/12	113	30 - 130	102	30 - 130	ND, RDL=0.005	ug/L		
1936311	o,p-DDT	2009/09/12	117	40 - 130	111	40 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	p,p-DDT	2009/09/12	115	30 - 130	120	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	Dieldrin	2009/09/12	105	36 - 130	113	36 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	Endosulfan I	2009/09/12	107	30 - 130	103	30 - 130	ND, RDL=0.005	ug/L		
1936311	Endosulfan II	2009/09/12	109	30 - 130	89	30 - 130	ND, RDL=0.005	ug/L		
1936311	Endosulfan sulfate	2009/09/12	114	30 - 130	114	30 - 130	ND, RDL=0.005	ug/L		
1936311	Endrin	2009/09/12	114	30 - 130	121	30 - 130	ND, RDL=0.005	ug/L		
1936311	Endrin aldehyde	2009/09/12	68	40 - 130	81	40 - 130	ND, RDL=0.005	ug/L		
1936311	Endrin ketone	2009/09/12	113	40 - 130	107	40 - 130	ND, RDL=0.005	ug/L		
1936311	Heptachlor	2009/09/12	103	30 - 130	104	30 - 130	ND, RDL=0.005	ug/L		
1936311	Heptachlor epoxide	2009/09/12	89	30 - 130	89	30 - 130	ND, RDL=0.005	ug/L		
1936311	Hexachlorobenzene	2009/09/12	120	30 - 130	126	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	Lindane	2009/09/12	118	30 - 130	86	30 - 130	ND, RDL=0.003	ug/L	NC	40
1936311	Methoxychlor	2009/09/12	109	40 - 130	119	40 - 130	ND, RDL=0.014	ug/L		
1936311	Mirex	2009/09/12	112	40 - 130	102	40 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	Octachlorostyrene	2009/09/12	150(1)	30 - 130	105	30 - 130	ND, RDL=0.005	ug/L		
1936311	Toxaphene	2009/09/12					ND, RDL=0.2	ug/L	NC	40
1936311	Aldrin + Dieldrin	2009/09/12					ND, RDL=0.005	ug/L		
1936311	Chlordane (Total)	2009/09/12					ND, RDL=0.005	ug/L	NC	40
1936311	o,p-DDD + p,p-DDD	2009/09/12					ND, RDL=0.005	ug/L		
1936311	o,p-DDE + p,p-DDE	2009/09/12					ND, RDL=0.005	ug/L		
1936311	o,p-DDT + p,p-DDT	2009/09/12					ND, RDL=0.005	ug/L	NC	40

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7614
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A948731

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1936311	DDT+ Metabolites	2009/09/12					ND, RDL=0.005	ug/L		
1936311	Total Endosulfan	2009/09/12					ND, RDL=0.005	ug/L		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery in the matrix spike was above the upper control limit. This may represent a high bias in some results for this specific analyte. For results that were not detected (ND), this potential bias has no impact.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B7614

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

CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

012(3)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80782 **CHAIN OF CUSTODY**

Page: 1 of 2

Invoice To: Require Report? Yes ☐ No ☐

Company Name: Franz environmental
Contact Name: James Smith
Address: 308-108 mainland st van
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith

jsmith@franzenvironmental.com
jkeentside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: VDC/JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☐ CCME
☒ OTHER Ontario

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☒ BTEX F1-F4 VOCs	☐ BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[1]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☒ Preserved ☒ Filtered ☐ Not Preserved ☐ Not Filtered	Mercury ☐ Total ☒ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): PAH	PCBs	Glycols	Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	1-09-5M	W	2009/09/01								X	X			X	X			X		X			15
2	1-09-6M	W	2009/09/01								X	X			X	X				X			13	12
3	1-09-2M	W	2009/09/01								X	X			X	X								10
4	FR-2	W	2009/09/01																X		X			5
5	FR-3	W	2009/09/01								X	X			X	X				X				10
6	1-09-1M	W	2009/09/01								X	X			X	X								10
7	5-09-MW3	W	2009/09/01								X	X			X	X			X					12
8	1-09-3M	W	2009/09/01								X	X			X	X					X			11
9	FR-1	W	2009/09/01								X	X			X	X			X	ARRIVED AT DEPOT				12
10	2-09-MW4	W	2009/09/02								X	X			X	X			X	X	X	SEP 04 2009		15
11	3-09-5M		2009/09/02								X	X			X	X			X					12
12	6-09-MW1	W	2009/09/01								X	X			X	X			X	TEMP: 6/5/4/1				12

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: 0839

Relinquished By: Vanessa Dodd Date/Time: Sept 2/2009

Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
SEP 0	05/08/09	1 4 1	
15:5D,JC	9:50 MW	1 2 3	
	CUSTODY SEAL (YES) / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD 00357 Rev6 08/12

012(3)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80781 **CHAIN OF CUSTODY**

Page: 2 of 2

Invoice To: Require Report? Yes ☐ No ☐

Company Name: FRANZ
Contact Name:
Address: James Smith
Prov: PC:
Contact #s: Ph: 604-632-9941 Fax:

Report To:

Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials:

DETECTION LIMIT REQUIREMENTS:

Check the applicable criterion and indicate land use

☐ AT1
☐ CCME
☒ OTHER ontario

REPORT DISTRIBUTION:

EMAIL ADDRESS(S):

SERVICE REQUESTED:

☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve [75 micron]	Salinity 4	Regulated Metals (CCME / AT1)[3]	Assessment ICP Metals[3]	☐ Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS (footnotes defined on back): ☐ BTEX F1 ☒ VOCs	☐ BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☒ Preserved ☐ Not Filtered	Mercury ☐ Total ☒ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): PAH	*HOLD for 60 Days	# of Containers Submitted
1	3-09-4H	W	2009/09/02								X	X			X	X			X		12
2	3-09-6H	W	2009/09/02								X	X			X	X			X		12
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ARRIVED AT DEPOT:
SEP 04 2009
TEMP: 9/1 0/1 0

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

0836

Maxxam Job #:

Relinquished By: Viviane Dubé Date/Time: Sept 2 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

JARS USED & NOT SUBMITTED

Received By: 05/09/09 9:50 BN

CUSTODY SEAL YES / NO

Temperature			Ice
1	4	1	
1	2	3	
1	1	1	

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Your Project #: 1748-0901
Site: CAMBRIDGE BAY
Your C.O.C. #: 80782, 80781

Attention: James Smith
FRANZ ENVIRONMENTAL INC.
FRANZENV-VAN
1080 MAINLAND STREET
308
VANCOUVER, BC
Canada V6B 2T4

Report Date: 2010/01/14
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A948731
Received: 2009/09/05, 15:50

Sample Matrix: Water
Samples Received: 15

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 in Water by HS GC/MS	10	N/A	2009/09/09	CAL SOP-00190	EPA 8260 C / CCME
BTEX/F1 in Water by HS GC/MS	3	N/A	2009/09/10	CAL SOP-00190	EPA 8260 C / CCME
BTEX/F1 in Water by HS GC/MS	1	N/A	2009/09/11	CAL SOP-00190	EPA 8260 C / CCME
Cadmium - low level CCME - Dissolved	12	N/A	2009/09/09	CAL SOP-00191	EPA SW-846 6020A
Cadmium - low level CCME - Dissolved	1	N/A	2009/09/10	CAL SOP-00191	EPA SW-846 6020A
Cadmium - low level CCME - Dissolved	1	N/A	2009/09/15	CAL SOP-00191	EPA SW-846 6020A
CCME Hydrocarbons (F2-F4 in water)	7	2009/09/08	2009/09/09	CAL SOP-00087	EPA3510C/CCME PHCCWS
CCME Hydrocarbons (F2-F4 in water)	5	2009/09/08	2009/09/10	CAL SOP-00087	EPA3510C/CCME PHCCWS
CCME Hydrocarbons (F2-F4 in water)	1	2009/09/08	2009/09/11	CAL SOP-00087	EPA3510C/CCME PHCCWS
CCME Hydrocarbons (F2-F4 in water)	1	2009/09/11	2009/09/13	CAL SOP-00087	EPA3510C/CCME PHCCWS
Ethylene, Di, Tri & Tetraethylene glycol	2	N/A	2009/09/10	CAL SOP-00093	EPA 8015 D
Hardness (1)	14	N/A	2010/01/14	CAL WI-00053	AEMM, Method 423
Mercury - Low Level (Dissolved)	13	2009/09/09	2009/09/11	CAL SOP-00007	EPA 1631
Mercury - Low Level (Dissolved)	1	2009/09/11	2009/09/11	CAL SOP-00007	EPA 1631
Elements by ICP - Dissolved	13	N/A	2009/09/10	CAL SOP-00192	EPA SW846 6010B
Elements by ICP - Dissolved	1	N/A	2009/09/11	CAL SOP-00192	EPA SW846 6010B
Elements by ICPMS - Dissolved	13	N/A	2009/09/08	CAL SOP-00191	EPA SW-846 6020A
Elements by ICPMS - Dissolved	1	N/A	2009/09/11	CAL SOP-00191	EPA SW-846 6020A
Benzo[a]pyrene Equivalency	9	N/A	2009/09/14	CAL SOP-00165	EPA 8270D
Benzo[a]pyrene Equivalency	1	N/A	2009/09/16	CAL SOP-00165	EPA 8270D
Polycyclic Aromatic Hydrocarbons (2)	2	2009/09/08	2009/09/10	CAL SOP-00165	EPA 3510C/8270D
Polycyclic Aromatic Hydrocarbons (2)	7	2009/09/08	2009/09/11	CAL SOP-00165	EPA 3510C/8270D
Polycyclic Aromatic Hydrocarbons (2)	1	2009/09/12	2009/09/14	CAL SOP-00165	EPA 3510C/8270D
Polychlorinated Biphenyls	3	2009/09/08	2009/09/09	CAL SOP-00149	EPA 3510C, EPA 8082A
Total Trihalomethanes Calculation	13	N/A	2009/09/14	CAL SOP-00104	EPA 8260C
Total Trihalomethanes Calculation	1	N/A	2009/09/15	CAL SOP-00104	EPA 8260C
VOCs in Water by P&T GC/MS (Std List)	1	N/A	2009/09/12	CAL SOP-00104	EPA 8260 C
VOCs in Water by P&T GC/MS (Std List) (1)	11	N/A	2009/09/12	EENVSOP-00003 EENVSOP-00002	EPA 8260C / CCME
VOCs in Water by P&T GC/MS (Std List) (1)	2	N/A	2009/09/14	EENVSOP-00003 EENVSOP-00002	EPA 8260C / CCME

* Results relate only to the items tested.

(1) This test was performed by Maxxam Edmonton Environmental
(2) B[a]P TPE is calculated using 1/2 of the RDL for non detect results as per Alberta Environment instructions. This protocol may not apply in other jurisdictions.

../2

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Encryption Key

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

LESLEY LEM, Project Manager
Email: lesley.lem@maxxamanalytics.com
Phone# (403) 291-3077

==========

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 CALA have approved this reporting process and electronic report format.

Total cover pages: 2

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		Q62925	Q62974	Q62980	Q62982	Q62983	Q62984	Q62985	Q62986	Q62987		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/02		
	Units	**1-09-5M**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**5-09-MW3**	**1-09-3M**	**FR-1**	**2-09-MW4**	**RDL**	**QC Batch**
Extractable Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3400578
F3 (C16-C34 Hydrocarbons)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3400578
F4 (C34-C50 Hydrocarbons)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	3400578
Reached Baseline at C50	mg/L	YES	YES	YES	YES	YES	YES	YES	YES	YES		3400578
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	76	72	77	80	69	71	82	72	84		3400578
Volatiles												
Benzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	3399997
Toluene	ug/L	1.0	0.9	1.8	1.7	1.0	1.1	1.9	1.8	<0.4	0.4	3399997
Ethylbenzene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	3399997
o-Xylene	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	1.1	<0.4	<0.4	<0.4	0.4	3399997
m & p-Xylene	ug/L	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	3399997
Xylenes (Total)	ug/L	<0.8	<0.8	<0.8	<0.8	<0.8	1.1	<0.8	<0.8	<0.8	0.8	3399997
F1 (C6-C10) - BTEX	ug/L	<100	<100	<100	<100	<100	<100	<100	<100	<100	100	3399997
(C6-C10)	ug/L	<100	<100	<100	<100	<100	<100	<100	<100	<100	100	3399997
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	93	94	97	95	105	99	99	96	97		3399997
D4-1,2-DICHLOROETHANE (sur.)	%	83	84	87	83	84	87	83	83	84		3399997
D8-TOLUENE (sur.)	%	98	97	99	96	97	98	96	96	95		3399997

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

AT1 BTEX AND F1-F4 IN WATER (WATER)

Maxxam ID		Q62989	Q62990		Q62991		Q62992		Q62995	Q62995		
Sampling Date		2009/09/02	2009/09/01		2009/09/02		2009/09/02		2009/09/01	2009/09/01		
	Units	**3-09-5M**	**6-09-MW1**	**RDL**	**3-09-4M**	**RDL**	**3-09-6M**	**QC Batch**	**1-09-4M**	**1-09-4M Lab-Dup**	**RDL**	**QC Batch**
Extractable Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	mg/L	3.5	<0.1	0.1	3.8	0.1	2.5	3400578	<0.1	<0.1	0.1	3410453
F3 (C16-C34 Hydrocarbons)	mg/L	<0.1	<0.1	0.1	0.2	0.1	0.5	3400578	<0.1	<0.1	0.1	3410453
F4 (C34-C50 Hydrocarbons)	mg/L	<0.1	<0.1	0.1	<0.1	0.1	<0.1	3400578	<0.1	<0.1	0.1	3410453
Reached Baseline at C50	mg/L	YES	YES		YES		YES	3400578	YES	YES		3410453
Surrogate Recovery (%)												
O-TERPHENYL (sur.)	%	67	70		67		59	3400578	91	84		3410453
Volatiles												
Benzene	ug/L	670	<0.4	0.4	1700	4	2.5	3399997	<0.4		0.4	3410853
Toluene	ug/L	110	1.0	0.4	2800	4	2.1	3399997	2.3		0.4	3410853
Ethylbenzene	ug/L	38	<0.4	0.4	180	4	1.1	3399997	<0.4		0.4	3410853
o-Xylene	ug/L	150	<0.4	0.4	770	4	6.2	3399997	<0.4		0.4	3410853
m & p-Xylene	ug/L	120	<0.8	0.8	1500	8	13	3399997	<0.8		0.8	3410853
Xylenes (Total)	ug/L	280	<0.8	0.8	2300	8	19	3399997	<0.8		0.8	3410853
F1 (C6-C10) - BTEX	ug/L	1700	<100	100	3500	1000	410	3399997	<100		100	3410853
(C6-C10)	ug/L	2800	<100	100	10000	1000	430	3399997	<100		100	3410853
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	92	106		99		92	3399997	96			3410853
D4-1,2-DICHLOROETHANE (sur.)	%	83	84		86		87	3399997	101			3410853
D8-TOLUENE (sur.)	%	97	96		99		99	3399997	96			3410853

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

REGULATED METALS (CCME/AT1) - DISSOLVED

Maxxam ID		Q62925	Q62925		Q62974	Q62980	Q62982	Q62983		Q62984		Q62985		
Sampling Date		2009/09/01	2009/09/01		2009/09/01	2009/09/01	2009/09/01	2009/09/01		2009/09/01		2009/09/01		
	Units	**1-09-5M**	**1-09-5M Lab-Dup**	**RDL**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**RDL**	**5-09-MW3**	**RDL**	**1-09-3M**	**RDL**	**QC Batch**
Low Level Elements														
Dissolved Cadmium (Cd)	ug/L	0.11		0.05	0.20	<0.05	<0.05	<0.05	0.05	0.07	0.05	<0.05	0.05	3399840
Elements														
Dissolved Aluminum (Al)	mg/L	0.27	0.29	0.01	<0.01	0.24	0.24	0.90	0.01	0.05	0.01	0.07	0.01	3400579
Dissolved Antimony (Sb)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Arsenic (As)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Barium (Ba)	mg/L	0.11		0.01	0.05	0.05	0.05	0.04	0.01	0.05	0.01	0.02	0.01	3403545
Dissolved Beryllium (Be)	mg/L	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Boron (B)	mg/L	0.21		0.02	0.07	0.09	0.11	0.15	0.02	0.50	0.02	0.86	0.02	3403545
Dissolved Calcium (Ca)	mg/L	410		0.3	180	130	140	89	0.3	120	0.3	330	0.3	3403545
Dissolved Chromium (Cr)	mg/L	<0.01(1)	<0.01	0.01	0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Cobalt (Co)	mg/L	<0.003	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003	0.003	<0.003	0.003	3400579
Dissolved Copper (Cu)	mg/L	0.007(1)	0.007	0.002	0.012	0.008	0.018	0.009	0.002	0.004	0.002	0.003	0.002	3400579
Dissolved Iron (Fe)	mg/L	0.45		0.06	0.31	0.46	0.45	1.4	0.06	0.27	0.06	0.50	0.06	3403545
Dissolved Lead (Pb)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Lithium (Li)	mg/L	0.07		0.02	0.05	0.02	0.03	<0.02	0.02	0.04	0.02	0.10	0.02	3403545
Dissolved Magnesium (Mg)	mg/L	330		0.2	180	110	120	72	0.2	150	0.2	320	0.2	3403545
Dissolved Manganese (Mn)	mg/L	0.035		0.004	0.021	0.025	0.028	0.056	0.004	0.12	0.004	0.020	0.004	3403545
Dissolved Molybdenum (Mo)	mg/L	<0.002	<0.002	0.002	0.009	0.002	0.002	0.003	0.002	0.010	0.002	<0.002	0.002	3400579
Dissolved Nickel (Ni)	mg/L	0.006(1)	0.007	0.005	<0.005	0.005	<0.005	<0.005	0.005	0.005	0.005	0.007	0.005	3400579
Dissolved Phosphorus (P)	mg/L	<0.1		0.1	0.1	<0.1	<0.1	0.2	0.1	<0.1	0.1	<0.1	0.1	3403545
Dissolved Potassium (K)	mg/L	38		0.3	34	21	22	17	0.3	40	0.3	78	0.3	3403545
Dissolved Selenium (Se)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Silicon (Si)	mg/L	4.0		0.1	5.2	5.9	5.7	3.0	0.1	2.4	0.1	4.2	0.1	3403545
Dissolved Silver (Ag)	mg/L	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	3400579
Dissolved Sodium (Na)	mg/L	700(2)		3	390	180	220	190	0.5	680(2)	3	670(2)	3	3403545
Dissolved Strontium (Sr)	mg/L	0.53		0.02	0.22	0.14	0.15	0.16	0.02	0.33	0.02	1.1	0.02	3403545
Dissolved Sulphur (S)	mg/L	520(2)		1	250	110	130	79	0.2	190	0.2	590(2)	1	3403545
Dissolved Thallium (Tl)	mg/L	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	3400579
Dissolved Tin (Sn)	mg/L	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Titanium (Ti)	mg/L	<0.01	<0.01	0.01	<0.01	0.02	<0.01	0.05	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Uranium (U)	mg/L	0.029	0.029	0.001	0.026	0.012	0.012	0.007	0.001	0.013	0.001	0.033	0.001	3400579
Dissolved Vanadium (V)	mg/L	<0.01(1)	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	3400579
Dissolved Zinc (Zn)	mg/L	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	0.03	<0.03	0.03	<0.03	0.03	3400579

RDL = Reportable Detection Limit
(1) - Matrix Spike recovery non calculable due to matrix interference. Original sample diluted to remove interference.
(2) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

REGULATED METALS (CCME/AT1) - DISSOLVED

Maxxam ID		Q62986		Q62987		Q62989	Q62990	Q62991	Q62992		Q62995		
Sampling Date		2009/09/01		2009/09/02		2009/09/02	2009/09/01	2009/09/02	2009/09/02		2009/09/01		
	Units	**FR-1**	**RDL**	**2-09-MW4**	**RDL**	**3-09-5M**	**6-09-MW1**	**3-09-4M**	**3-09-6M**	**QC Batch**	**1-09-4M**	**RDL**	**QC Batch**
Low Level Elements													
Dissolved Cadmium (Cd)	ug/L	0.19	0.05	<0.05	0.05	0.13	0.33	<0.05	0.06	3399840	<0.05	0.05	3410297
Elements													
Dissolved Aluminum (Al)	mg/L	<0.01	0.01	<0.01	0.01	0.04	<0.01	1.0	0.13	3400579	0.33	0.01	3412196
Dissolved Antimony (Sb)	mg/L	0.005	0.002	<0.002	0.002	<0.002	0.006	<0.002	<0.002	3400579	<0.002	0.002	3412196
Dissolved Arsenic (As)	mg/L	0.003	0.002	<0.002	0.002	<0.002	0.003	0.003	0.006	3400579	<0.002	0.002	3412196
Dissolved Barium (Ba)	mg/L	0.03	0.01	0.03	0.01	0.03	0.03	0.07	0.12	3403545	0.03	0.01	3410303
Dissolved Beryllium (Be)	mg/L	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	3400579	<0.01	0.01	3412196
Dissolved Boron (B)	mg/L	0.54	0.02	1.2	0.02	0.29	0.53	0.68	0.85	3403545	0.28	0.02	3410303
Dissolved Calcium (Ca)	mg/L	94	0.3	240	0.3	70	91	86	200	3403545	180	0.3	3410303
Dissolved Chromium (Cr)	mg/L	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	3400579	<0.01	0.01	3412196
Dissolved Cobalt (Co)	mg/L	<0.003	0.003	0.011	0.003	<0.003	<0.003	0.008	0.014	3400579	<0.003	0.003	3412196
Dissolved Copper (Cu)	mg/L	0.010	0.002	0.004	0.002	0.004	0.010	0.012	0.018	3400579	0.005	0.002	3412196
Dissolved Iron (Fe)	mg/L	0.09	0.06	0.42	0.06	0.19	0.07	1.7	1.6	3403545	0.51	0.06	3410303
Dissolved Lead (Pb)	mg/L	<0.002	0.002	<0.002	0.002	<0.002	<0.002	0.10	0.004	3400579	<0.002	0.002	3412196
Dissolved Lithium (Li)	mg/L	0.03	0.02	0.07	0.02	<0.02	0.03	0.04	0.03	3403545	0.03	0.02	3410303
Dissolved Magnesium (Mg)	mg/L	40	0.2	320	0.2	45	38	82	120	3403545	120	0.2	3410303
Dissolved Manganese (Mn)	mg/L	0.13	0.004	0.16	0.004	0.094	0.050	0.33	0.46	3403545	0.10	0.004	3410303
Dissolved Molybdenum (Mo)	mg/L	0.026	0.002	0.004	0.002	0.022	0.029	0.011	0.007	3400579	0.003	0.002	3412196
Dissolved Nickel (Ni)	mg/L	0.011	0.005	0.033	0.005	0.010	0.012	0.042	0.052	3400579	<0.005	0.005	3412196
Dissolved Phosphorus (P)	mg/L	0.3	0.1	<0.1	0.1	<0.1	0.4	0.2	<0.1	3403545	0.2	0.1	3410303
Dissolved Potassium (K)	mg/L	15	0.3	83	0.3	46	14	110	94	3403545	24	0.3	3410303
Dissolved Selenium (Se)	mg/L	<0.002	0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	3400579	<0.002	0.002	3412196
Dissolved Silicon (Si)	mg/L	5.8	0.1	2.0	0.1	1.6	5.4	3.7	7.9	3403545	5.9	0.1	3410303
Dissolved Silver (Ag)	mg/L	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	3400579	<0.001	0.001	3412196
Dissolved Sodium (Na)	mg/L	33	0.5	1000(1)	3	130	32	260	300	3403545	160	0.5	3410303
Dissolved Strontium (Sr)	mg/L	0.18	0.02	1.2	0.02	0.15	0.18	0.21	0.46	3403545	0.32	0.02	3410303
Dissolved Sulphur (S)	mg/L	48	0.2	520(1)	1	91	44	120	160	3403545	180	0.2	3410303
Dissolved Thallium (Tl)	mg/L	<0.002	0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	3400579	<0.002	0.002	3412196
Dissolved Tin (Sn)	mg/L	<0.01	0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	3400579	<0.01	0.01	3412196
Dissolved Titanium (Ti)	mg/L	<0.01	0.01	<0.01	0.01	<0.01	<0.01	0.04	<0.01	3400579	0.03	0.01	3412196
Dissolved Uranium (U)	mg/L	0.007	0.001	0.008	0.001	0.007	0.006	0.013	0.014	3400579	0.014	0.001	3412196
Dissolved Vanadium (V)	mg/L	<0.01	0.01	<0.01	0.01	0.01	0.01	0.02	0.01	3400579	<0.01	0.01	3412196
Dissolved Zinc (Zn)	mg/L	<0.03	0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	3400579	<0.03	0.03	3412196

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		Q62925	Q62974	Q62980	Q62982	Q62983	Q62984	Q62985	Q62986		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01		
	Units	**1-09-5M**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**5-09-MW3**	**1-09-3M**	**FR-1**	**RDL**	**QC Batch**
Calculated Parameters											
Hardness (CaCO3)	mg/L	2400	1200	750	820	520	930	2200	400	0.5	3677858

Maxxam ID		Q62987	Q62989	Q62990	Q62991	Q62992	Q62995		
Sampling Date		2009/09/02	2009/09/02	2009/09/01	2009/09/02	2009/09/02	2009/09/01		
	Units	**2-09-MW4**	**3-09-5M**	**6-09-MW1**	**3-09-4M**	**3-09-6M**	**1-09-4M**	**RDL**	**QC Batch**
Calculated Parameters									
Hardness (CaCO3)	mg/L	1900	360	380	550	1000	970	0.5	3677858

GLYCOLS BY GC-FID (WATER)

Maxxam ID		Q62925	Q62981		
Sampling Date		2009/09/01	2009/09/01		
	Units	**1-09-5M**	**FR-2**	**RDL**	**QC Batch**
Glycols					
Ethylene Glycol	mg/L	<10	<10	10	3402945
Diethylene Glycol	mg/L	<10	<10	10	3402945
Triethylene Glycol	mg/L	<10	<10	10	3402945
Tetraethylene Glycol	mg/L	<10	<10	10	3402945
Propylene Glycol	mg/L	<10	<10	10	3402945
Surrogate Recovery (%)					
Methyl Sulfone (sur.)	%	80	82		3402945

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

POLYCHLORINATED BIPHENYLS BY GC-ECD (WATER)

Maxxam ID		Q62974	Q62974	Q62982	Q62987		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/02		
	Units	**1-09-6M**	**1-09-6M Lab-Dup**	**FR-3**	**2-09-MW4**	**RDL**	**QC Batch**
Polychlorinated Biphenyls							
Aroclor 1016	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1221	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1232	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1242	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1248	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1254	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1260	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1262	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Aroclor 1268	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Total Aroclors	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	0.000050	3400001
Surrogate Recovery (%)							
NONACHLOROBIPHENYL (sur.)	%	96	100	97	92		3400001

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62925	Q62981	Q62984	Q62986	Q62987		Q62989		Q62990		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/02		2009/09/02		2009/09/01		
	Units	**1-09-5M**	**FR-2**	**5-09-MW3**	**FR-1**	**2-09-MW4**	**RDL**	**3-09-5M**	**RDL**	**6-09-MW1**	**RDL**	**QC Batch**
Polycyclic Aromatics												
Benzo[a]pyrene equivalency	ug/L	<0.01	<0.01	<0.01	0.02	<0.01	0.01	<0.01	0.01	<0.01	0.01	3399843
Acenaphthene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	0.20	0.10	<0.10	0.10	3400603
Acenaphthylene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Acridine	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	<0.20	0.20	<0.20	0.20	3400603
Anthracene	ug/L	<0.010	0.029	<0.010	<0.010	<0.010	0.010	<0.010	0.010	<0.010	0.010	3400603
Benzo(a)anthracene	ug/L	<0.0085	<0.0085	<0.0085	0.016	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Benzo(b&j)fluoranthene	ug/L	<0.0085	<0.0085	<0.0085	0.019	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Benzo(k)fluoranthene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Benzo(g,h,i)perylene	ug/L	<0.0085	<0.0085	<0.0085	0.016	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Benzo(c)phenanthrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	3400603
Benzo(a)pyrene	ug/L	<0.0075	<0.0075	<0.0075	0.013	<0.0075	0.0075	<0.0075	0.0075	<0.0075	0.0075	3400603
Benzo[e]pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	3400603
Chrysene	ug/L	<0.0085	<0.0085	<0.0085	0.017	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
Dibenz(a,h)anthracene	ug/L	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	0.0075	<0.0075	0.0075	<0.0075	0.0075	3400603
Dibenzo(a,e)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Dibenzo(a,h)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Dibenzo(a,i)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Dibenzo(a,l)pyrene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	3400603
Fluoranthene	ug/L	<0.040	<0.040	<0.040	0.13	<0.040	0.040	<0.040	0.040	<0.040	0.040	3400603
Fluorene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	0.55	0.050	<0.050	0.050	3400603
Indeno(1,2,3-cd)pyrene	ug/L	<0.0085	<0.0085	<0.0085	<0.0085	<0.0085	0.0085	<0.0085	0.0085	<0.0085	0.0085	3400603
2-Methylnaphthalene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	82 (1)	1.0	<0.10	0.10	3400603
Naphthalene	ug/L	<0.10	<0.10	<0.10	0.18	<0.10	0.10	84 (1)	1.0	0.10	0.10	3400603
Phenanthrene	ug/L	<0.050	<0.050	<0.050	0.093	<0.050	0.050	0.10	0.050	<0.050	0.050	3400603
Perylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	3400603
Pyrene	ug/L	<0.020	<0.020	<0.020	0.11	<0.020	0.020	0.025	0.020	0.021	0.020	3400603
Quinoline	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	<0.20	0.20	<0.20	0.20	3400603
Surrogate Recovery (%)												
D10-ANTHRACENE (sur.)	%	64	62	59	57	75		70		64		3400603
D12-BENZO(A)PYRENE (sur.)	%	39	38	38	37	46		44		43		3400603
D8-ACENAPHTHYLENE (sur.)	%	48	47	52	38	55		68		47		3400603
TERPHENYL-D14 (sur.)	%	56	55	56	51	66		63		58		3400603

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62991		Q62992	Q62992		Q62995	Q62995		
Sampling Date		2009/09/02		2009/09/02	2009/09/02		2009/09/01	2009/09/01		
	Units	**3-09-4M**	**RDL**	**3-09-6M**	**3-09-6M Lab-Dup**	**QC Batch**	**1-09-4M**	**1-09-4M Lab-Dup**	**RDL**	**QC Batch**
Polycyclic Aromatics										
Benzo[a]pyrene equivalency	ug/L	<0.01	0.01	<0.01		3399843	<0.01		0.01	3410298
Acenaphthene	ug/L	0.11	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Acenaphthylene	ug/L	<0.10	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Acridine	ug/L	<0.20	0.20	<0.20	<0.20	3400603	<0.20	<0.20	0.20	3410454
Anthracene	ug/L	<0.010	0.010	<0.010	<0.010	3400603	<0.010	<0.010	0.010	3410454
Benzo(a)anthracene	ug/L	<0.0085(1)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Benzo(b&j)fluoranthene	ug/L	<0.0085(2)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Benzo(k)fluoranthene	ug/L	<0.0085(3)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Benzo(g,h,i)perylene	ug/L	<0.0085(4)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Benzo(c)phenanthrene	ug/L	<0.050(5)	0.050	<0.050	<0.050	3400603	<0.050	<0.050	0.050	3410454
Benzo(a)pyrene	ug/L	<0.0075(6)	0.0075	<0.0075	<0.0075	3400603	<0.0075	<0.0075	0.0075	3410454
Benzo[e]pyrene	ug/L	<0.050(7)	0.050	<0.050	<0.050	3400603	<0.050	<0.050	0.050	3410454
Chrysene	ug/L	<0.0085(8)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454
Dibenz(a,h)anthracene	ug/L	<0.0075(9)	0.0075	<0.0075	<0.0075	3400603	<0.0075	<0.0075	0.0075	3410454
Dibenzo(a,e)pyrene	ug/L	<0.10(10)	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Dibenzo(a,h)pyrene	ug/L	<0.10(11)	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Dibenzo(a,i)pyrene	ug/L	<0.10(12)	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Dibenzo(a,l)pyrene	ug/L	<0.10(13)	0.10	<0.10	<0.10	3400603	<0.10	<0.10	0.10	3410454
Fluoranthene	ug/L	<0.040	0.040	<0.040	<0.040	3400603	<0.040	<0.040	0.040	3410454
Fluorene	ug/L	0.37	0.050	0.066	0.059	3400603	<0.050	<0.050	0.050	3410454
Indeno(1,2,3-cd)pyrene	ug/L	<0.0085(14)	0.0085	<0.0085	<0.0085	3400603	<0.0085	<0.0085	0.0085	3410454

RDL = Reportable Detection Limit
(1) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:7.82%, limits30-130%)
(10) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.26%, limits30-130%)
(11) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.86%, limits30-130%)
(12) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:4.10%, limits30-130%)
(13) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:1.79%, limits30-130%)
(14) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:6.83%, limits30-130%)
(2) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.97%, limits30-130%)
(3) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.82%, limits30-130%)
(4) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:6.36%, limits30-130%)
(5) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:14.17%, limits30-130%)
(6) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.03%, limits30-130%)
(7) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.63%, limits30-130%)
(8) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:7.35%, limits30-130%)
(9) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:6.45%, limits30-130%)

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

SEMIVOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62991		Q62992	Q62992		Q62995	Q62995		
Sampling Date		2009/09/02		2009/09/02	2009/09/02		2009/09/01	2009/09/01		
	Units	**3-09-4M**	**RDL**	**3-09-6M**	**3-09-6M Lab-Dup**	**QC Batch**	**1-09-4M**	**1-09-4M Lab-Dup**	**RDL**	**QC Batch**
2-Methylnaphthalene	ug/L	77(1)	1.0	1.0	0.97	3400603	<0.10	<0.10	0.10	3410454
Naphthalene	ug/L	330(1)	1.0	2.1	1.9	3400603	<0.10	<0.10	0.10	3410454
Phenanthrene	ug/L	0.30	0.050	<0.050	<0.050	3400603	<0.050	<0.050	0.050	3410454
Perylene	ug/L	<0.050(2)	0.050	<0.050	<0.050	3400603	<0.050	<0.050	0.050	3410454
Pyrene	ug/L	0.045	0.020	<0.020	<0.020	3400603	<0.020	<0.020	0.020	3410454
Quinoline	ug/L	<0.20	0.20	<0.20	<0.20	3400603	<0.20	<0.20	0.20	3410454
Surrogate Recovery (%)										
D10-ANTHRACENE (sur.)	%	73		76	68	3400603	95	96		3410454
D12-BENZO(A)PYRENE (sur.)	%	55		54	43	3400603	90	82		3410454
D8-ACENAPHTHYLENE (sur.)	%	68		77	65	3400603	71	75		3410454
TERPHENYL-D14 (sur.)	%	68		71	60	3400603	84	83		3410454

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		Q62925	Q62974	Q62980	Q62982	Q62983	Q62984	Q62985	Q62986		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01		
	Units	**1-09-5M**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**5-09-MW3**	**1-09-3M**	**FR-1**	**RDL**	**QC Batch**
Low Level Elements											
Dissolved Mercury (Hg)	ug/L	0.003	0.004	0.005	0.006	0.003	0.004	0.004	0.004	0.001	3406740

Maxxam ID		Q62987	Q62989	Q62990	Q62991	Q62992	Q62995		
Sampling Date		2009/09/02	2009/09/02	2009/09/01	2009/09/02	2009/09/02	2009/09/01		
	Units	**2-09-MW4**	**3-09-5M**	**6-09-MW1**	**3-09-4M**	**3-09-6M**	**1-09-4M**	**RDL**	**QC Batch**
Low Level Elements									
Dissolved Mercury (Hg)	ug/L	0.002	0.002	0.005	0.005	0.009	0.003	0.001	3406740

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.
(2) - Matrix Spike exceeds acceptance limits due to matrix interference. Reanalysis yields similar results. (Recovery:5.95%, limits30-130%)

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62925	Q62974	Q62980	Q62982	Q62983	Q62984	Q62985	Q62986	Q62987		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/02		
	Units	**1-09-5M**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**5-09-MW3**	**1-09-3M**	**FR-1**	**2-09-MW4**	**RDL**	**QC Batch**
Volatiles												
Total Trihalomethanes	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3399844
Bromodichloromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Bromoform	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Bromomethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
Carbon tetrachloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Chlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Chlorodibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	3411227
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	3411227
Chloroform	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Chloromethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
1,2-dibromoethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,2-dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,3-dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,4-dichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1-dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,2-dichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1-dichloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
cis-1,2-dichloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
trans-1,2-dichloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Dichloromethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
1,2-dichloropropane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
cis-1,3-dichloropropene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
trans-1,3-dichloropropene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Methyl methacrylate	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Methyl-tert-butylether (MTBE)	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Styrene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1,1,2-tetrachloroethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
1,1,2,2-tetrachloroethane	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	2	3411227
Tetrachloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,2,3-trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	3411227
1,2,4-trichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	3411227
1,3,5-trichlorobenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1,1-trichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
1,1,2-trichloroethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Trichloroethene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Trichlorofluoromethane	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62925	Q62974	Q62980	Q62982	Q62983	Q62984	Q62985	Q62986	Q62987		
Sampling Date		2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/01	2009/09/02		
	Units	**1-09-5M**	**1-09-6M**	**1-09-2M**	**FR-3**	**1-09-1M**	**5-09-MW3**	**1-09-3M**	**FR-1**	**2-09-MW4**	**RDL**	**QC Batch**
1,2,4-trimethylbenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	35	<0.5	0.5	<0.5	0.5	3411227
1,3,5-trimethylbenzene	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	8.8	<0.5	2.0	<0.5	0.5	3411227
Vinyl chloride	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	3411227
Surrogate Recovery (%)												
4-BROMOFLUOROBENZENE (sur.)	%	111	110	111	111	113	108	112	115	114		3411227
D4-1,2-DICHLOROETHANE (sur.)	%	97	89	95	89	91	91	86	86	94		3411227
D8-TOLUENE (sur.)	%	101	104	102	103	103	103	104	106	103		3411227

RDL = Reportable Detection Limit

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62989		Q62990			Q62991		Q62992		Q62995		
Sampling Date		2009/09/02		2009/09/01			2009/09/02		2009/09/02		2009/09/01		
	Units	**3-09-5M**	**RDL**	**6-09-MW1**	**RDL**	**QC Batch**	**3-09-4M**	**RDL**	**3-09-6M**	**QC Batch**	**1-09-4M**	**RDL**	**QC Batch**
Volatiles													
Total Trihalomethanes	ug/L	<2	2	<2	2	3399844	<2	2	<2	3399844	<2	2	3410299
Bromodichloromethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Bromoform	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Bromomethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	<2	2	3410851
Carbon tetrachloride	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Chlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Chlorodibromomethane	ug/L	<1	1	<1	1	3411227	<1	1	<1	3412798	<1	1	3410851
Chloroethane	ug/L	<1	1	<1	1	3411227	<1	1	<1	3412798	<1	1	3410851
Chloroform	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Chloromethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	51	2	3410851
1,2-dibromoethane	ug/L	7.8	0.5	<0.5	0.5	3411227	150(1)	5	<0.5	3412798	<0.5	0.5	3410851
1,2-dichlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,3-dichlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,4-dichlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,1-dichloroethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,2-dichloroethane	ug/L	18	0.5	<0.5	0.5	3411227	14	0.5	1.8	3412798	<0.5	0.5	3410851
1,1-dichloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
cis-1,2-dichloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
trans-1,2-dichloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Dichloromethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	<2	2	3410851
1,2-dichloropropane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
cis-1,3-dichloropropene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
trans-1,3-dichloropropene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Methyl methacrylate	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Methyl-tert-butylether (MTBE)	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Styrene	ug/L	<0.5	0.5	<0.5	0.5	3411227	1.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,1,1,2-tetrachloroethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	<2	2	3410851
1,1,2,2-tetrachloroethane	ug/L	<2	2	<2	2	3411227	<2	2	<2	3412798	<2	2	3410851
Tetrachloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,2,3-trichlorobenzene	ug/L	<1	1	<1	1	3411227	<1	1	<1	3412798	<1	1	3410851
1,2,4-trichlorobenzene	ug/L	<1	1	<1	1	3411227	<1	1	<1	3412798	<1	1	3410851
1,3,5-trichlorobenzene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,1,1-trichloroethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,1,2-trichloroethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Trichloroethene	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		Q62989		Q62990			Q62991		Q62992		Q62995		
Sampling Date		2009/09/02		2009/09/01			2009/09/02		2009/09/02		2009/09/01		
	Units	**3-09-5M**	**RDL**	**6-09-MW1**	**RDL**	**QC Batch**	**3-09-4M**	**RDL**	**3-09-6M**	**QC Batch**	**1-09-4M**	**RDL**	**QC Batch**
Trichlorofluoromethane	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
1,2,4-trimethylbenzene	ug/L	200(1)	5	0.6	0.5	3411227	590(1)	5	23	3412798	<0.5	0.5	3410851
1,3,5-trimethylbenzene	ug/L	62	0.5	2.3	0.5	3411227	170(1)	5	7.3	3412798	<0.5	0.5	3410851
Vinyl chloride	ug/L	<0.5	0.5	<0.5	0.5	3411227	<0.5	0.5	<0.5	3412798	<0.5	0.5	3410851
Surrogate Recovery (%)													
4-BROMOFLUOROBENZENE (sur.)	%	103		111		3411227	107		102	3412798	97		3410851
D4-1,2-DICHLOROETHANE (sur.)	%	86		84		3411227	92		95	3412798	94		3410851
D8-TOLUENE (sur.)	%	103		106		3411227	103		103	3412798	103		3410851

RDL = Reportable Detection Limit
(1) - Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

Package 1	6.0°C
Package 2	5.7°C
Package 3	6.3°C

Each temperature is the average of up to three cooler temperatures taken at receipt

General Comments

Pesticide Scan report is attached to this file. This was analyzed at our Ontario lab. Their reference number for these results are A9B7614.

AT1 BTEX AND F1-F4 IN WATER (WATER) Comments

Sample Q62991-02 BTEX/F1 in Water by HS GC/MS: Detection limits raised due to dilution to bring analyte within the calibrated range.

REGULATED METALS (CCME/AT1) - DISSOLVED Comments

Sample Q62925-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62974-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62980-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62982-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62983-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62984-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62985-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62986-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62987-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62989-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62990-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62991-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62992-01 Elements by ICPMS - Dissolved: Detection limits raised due to matrix interference

Sample Q62995-01 Elements by ICPMS - Dissolved: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

SEMIVOLATILE ORGANICS BY GC-MS (WATER) Comments

Sample Q62995-02 Polycyclic Aromatic Hydrocarbons: Sample extracted past method-specified hold time.

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3399997	4-BROMOFLUOROBENZENE (sur.)	2009/09/09			105	70 - 130	93	%		
3399997	D4-1,2-DICHLOROETHANE (sur.)	2009/09/09			88	70 - 130	83	%		
3399997	D8-TOLUENE (sur.)	2009/09/09			93	70 - 130	98	%		
3399997	Benzene	2009/09/09			102	70 - 130	<0.4	ug/L	NC	40
3399997	Toluene	2009/09/09			107	70 - 130	<0.4	ug/L	NC	40
3399997	Ethylbenzene	2009/09/09			109	70 - 130	<0.4	ug/L	NC	40
3399997	o-Xylene	2009/09/09			114	70 - 130	<0.4	ug/L	NC	40
3399997	m & p-Xylene	2009/09/09			112	70 - 130	<0.8	ug/L	NC	40
3399997	(C6-C10)	2009/09/09			102	70 - 130	<100	ug/L	NC	40
3399997	Xylenes (Total)	2009/09/09					<0.8	ug/L	NC	40
3399997	F1 (C6-C10) - BTEX	2009/09/09					<100	ug/L	NC	40
3400001	NONACHLOROBIPHENYL (sur.)	2009/09/09			105	30 - 130	96	%		
3400001	Aroclor 1260	2009/09/09	107	30 - 130	106	30 - 130	<0.000050	mg/L	NC	40
3400001	Aroclor 1016	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1221	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1232	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1242	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1248	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1254	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1262	2009/09/09					<0.000050	mg/L	NC	40
3400001	Aroclor 1268	2009/09/09					<0.000050	mg/L	NC	40
3400001	Total Aroclors	2009/09/09					<0.000050	mg/L	NC	40
3400578	F2 (C10-C16 Hydrocarbons)	2009/09/09			96	70 - 130	<0.1	mg/L	NC	40
3400578	F3 (C16-C34 Hydrocarbons)	2009/09/09			100	70 - 130	<0.1	mg/L	NC	40
3400578	F4 (C34-C50 Hydrocarbons)	2009/09/09			118	70 - 130	<0.1	mg/L	NC	40
3400578	O-TERPHENYL (sur.)	2009/09/08			99	70 - 130	101	%		
3400579	Dissolved Aluminum (Al)	2009/09/08	NC	80 - 120	104	80 - 120	<0.001	mg/L	8.3	20
3400579	Dissolved Antimony (Sb)	2009/09/08	107	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20
3400579	Dissolved Arsenic (As)	2009/09/08	93	80 - 120	98	80 - 108	<0.0002	mg/L	NC	20
3400579	Dissolved Beryllium (Be)	2009/09/08	95	80 - 120	110	80 - 120	<0.001	mg/L	NC	20
3400579	Dissolved Chromium (Cr)	2009/09/08	NC	80 - 120	90	80 - 120	<0.001	mg/L	NC	20
3400579	Dissolved Cobalt (Co)	2009/09/08	88	80 - 120	95	80 - 120	<0.0003	mg/L	NC	20
3400579	Dissolved Copper (Cu)	2009/09/08	NC	80 - 120	91	81 - 114	<0.0002	mg/L	NC	20
3400579	Dissolved Lead (Pb)	2009/09/08	90	80 - 120	90	82 - 112	<0.0002	mg/L	NC	20
3400579	Dissolved Molybdenum (Mo)	2009/09/08	99	80 - 120	95	80 - 106	<0.0002	mg/L	NC	20
3400579	Dissolved Nickel (Ni)	2009/09/08	NC	80 - 120	93	82 - 112	<0.0005	mg/L	NC	20
3400579	Dissolved Selenium (Se)	2009/09/08	94	80 - 120	100	81 - 120	<0.0002	mg/L	NC	20
3400579	Dissolved Silver (Ag)	2009/09/08	93	80 - 120	97	80 - 117	<0.0001	mg/L	NC	20
3400579	Dissolved Thallium (Tl)	2009/09/08	91	80 - 120	91	80 - 120	<0.0002	mg/L	NC	20
3400579	Dissolved Tin (Sn)	2009/09/08	99	80 - 120	91	80 - 112	<0.001	mg/L	NC	20

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3400579	Dissolved Titanium (Ti)	2009/09/08	82	80 - 120	92	80 - 110	<0.001	mg/L	NC	20
3400579	Dissolved Uranium (U)	2009/09/08	NC	80 - 120	89	80 - 114	<0.0001	mg/L	2.4	20
3400579	Dissolved Vanadium (V)	2009/09/08	NC	80 - 120	96	80 - 119	<0.001	mg/L	NC	20
3400579	Dissolved Zinc (Zn)	2009/09/08	87	80 - 120	93	80 - 120	<0.003	mg/L	NC	20
3400603	D10-ANTHRACENE (sur.)	2009/09/10			111	30 - 130	94	%		
3400603	D12-BENZO(A)PYRENE (sur.)	2009/09/10			88	30 - 130	67	%		
3400603	D8-ACENAPHTHYLENE (sur.)	2009/09/10			98	30 - 130	86	%		
3400603	TERPHENYL-D14 (sur.)	2009/09/10			102	30 - 130	90	%		
3400603	Acenaphthene	2009/09/11	68	30 - 130	100	30 - 130	<0.10	ug/L	NC	40
3400603	Acenaphthylene	2009/09/11	71	30 - 130	95	30 - 130	<0.10	ug/L	NC	40
3400603	Acridine	2009/09/11	52	30 - 130	74	30 - 130	<0.20	ug/L	NC	40
3400603	Anthracene	2009/09/11	36	30 - 130	88	30 - 130	<0.010	ug/L	NC	40
3400603	Fluoranthene	2009/09/11	33	30 - 130	94	30 - 130	<0.040	ug/L	NC	40
3400603	Fluorene	2009/09/11	64	30 - 130	98	30 - 130	<0.050	ug/L	NC	40
3400603	2-Methylnaphthalene	2009/09/11	NC	30 - 130	93	30 - 130	<0.10	ug/L	6.3	40
3400603	Naphthalene	2009/09/11	NC	30 - 130	99	30 - 130	<0.10	ug/L	7.4	40
3400603	Phenanthrene	2009/09/11	57	30 - 130	99	30 - 130	<0.050	ug/L	NC	40
3400603	Pyrene	2009/09/11	31	30 - 130	93	30 - 130	<0.020	ug/L	NC	40
3400603	Quinoline	2009/09/11	127	30 - 130	85	30 - 130	<0.20	ug/L	NC	40
3400603	Benzo(a)anthracene	2009/09/11			79	30 - 130	<0.0085	ug/L	NC	40
3400603	Benzo(b&j)fluoranthene	2009/09/11			75	30 - 130	<0.0085	ug/L	NC	40
3400603	Benzo(k)fluoranthene	2009/09/11			90	30 - 130	<0.0085	ug/L	NC	40
3400603	Benzo(g,h,i)perylene	2009/09/11			101	30 - 130	<0.0085	ug/L	NC	40
3400603	Benzo(c)phenanthrene	2009/09/11			86	30 - 130	<0.050	ug/L	NC	40
3400603	Benzo(a)pyrene	2009/09/11			81	30 - 130	<0.0075	ug/L	NC	40
3400603	Benzo[e]pyrene	2009/09/11			81	30 - 130	<0.050	ug/L	NC	40
3400603	Chrysene	2009/09/11			95	30 - 130	<0.0085	ug/L	NC	40
3400603	Dibenz(a,h)anthracene	2009/09/11			117	30 - 130	<0.0075	ug/L	NC	40
3400603	Dibenzo(a,e)pyrene	2009/09/11			96	30 - 130	<0.10	ug/L	NC	40
3400603	Dibenzo(a,h)pyrene	2009/09/11			127	30 - 130	<0.10	ug/L	NC	40
3400603	Dibenzo(a,i)pyrene	2009/09/11			75	30 - 130	<0.10	ug/L	NC	40
3400603	Dibenzo(a,l)pyrene	2009/09/11			96	30 - 130	<0.10	ug/L	NC	40
3400603	Indeno(1,2,3-cd)pyrene	2009/09/11			97	30 - 130	<0.0085	ug/L	NC	40
3400603	Perylene	2009/09/11			101	30 - 130	<0.050	ug/L	NC	40
3402945	Methyl Sulfone (sur.)	2009/09/10			90	70 - 130	99	%		
3402945	Ethylene Glycol	2009/09/10			95	70 - 130	<10	mg/L	NC	20
3402945	Diethylene Glycol	2009/09/10			97	70 - 130	<10	mg/L	NC	20
3402945	Triethylene Glycol	2009/09/10			105	70 - 130	<10	mg/L	NC	20
3402945	Tetraethylene Glycol	2009/09/10			115	70 - 130	<10	mg/L	NC	20
3402945	Propylene Glycol	2009/09/10			96	70 - 130	<10	mg/L	NC	20

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3403545	Dissolved Barium (Ba)	2009/09/09			107	80 - 110	<0.01	mg/L		
3403545	Dissolved Boron (B)	2009/09/09			111	84 - 117	0.02, RDL=0.02	mg/L		
3403545	Dissolved Calcium (Ca)	2009/09/09			109	88 - 115	<0.3	mg/L		
3403545	Dissolved Iron (Fe)	2009/09/09			103	81 - 111	<0.06	mg/L		
3403545	Dissolved Lithium (Li)	2009/09/09			107	82 - 117	<0.02	mg/L		
3403545	Dissolved Magnesium (Mg)	2009/09/09			114	87 - 117	<0.2	mg/L		
3403545	Dissolved Manganese (Mn)	2009/09/09			107	85 - 110	<0.004	mg/L		
3403545	Dissolved Phosphorus (P)	2009/09/09			112	87 - 116	<0.1	mg/L		
3403545	Dissolved Potassium (K)	2009/09/09			110	85 - 117	<0.3	mg/L		
3403545	Dissolved Silicon (Si)	2009/09/09			103	80 - 120	<0.1	mg/L		
3403545	Dissolved Sodium (Na)	2009/09/09			104	84 - 118	<0.5	mg/L		
3403545	Dissolved Strontium (Sr)	2009/09/09			106	83 - 113	<0.02	mg/L		
3403545	Dissolved Sulphur (S)	2009/09/09					<0.2	mg/L		
3406740	Dissolved Mercury (Hg)	2009/09/11			117	80 - 120	0.001, RDL=0.001	ug/L	NC	20
3410303	Dissolved Barium (Ba)	2009/09/11			89	80 - 110	<0.01	mg/L		
3410303	Dissolved Boron (B)	2009/09/11			94	84 - 117	<0.02	mg/L		
3410303	Dissolved Calcium (Ca)	2009/09/11			95	88 - 115	<0.3	mg/L		
3410303	Dissolved Iron (Fe)	2009/09/11			87	81 - 111	<0.06	mg/L		
3410303	Dissolved Lithium (Li)	2009/09/11			93	82 - 117	<0.02	mg/L		
3410303	Dissolved Magnesium (Mg)	2009/09/11			97	87 - 117	<0.2	mg/L		
3410303	Dissolved Manganese (Mn)	2009/09/11			92	85 - 110	<0.004	mg/L		
3410303	Dissolved Phosphorus (P)	2009/09/11			96	87 - 116	<0.1	mg/L		
3410303	Dissolved Potassium (K)	2009/09/11			95	85 - 117	<0.3	mg/L		
3410303	Dissolved Silicon (Si)	2009/09/11			90	80 - 120	<0.1	mg/L		
3410303	Dissolved Sodium (Na)	2009/09/11			94	84 - 118	<0.5	mg/L	2.6	20
3410303	Dissolved Strontium (Sr)	2009/09/11			90	83 - 113	<0.02	mg/L		
3410303	Dissolved Sulphur (S)	2009/09/11					<0.2	mg/L		
3410453	F2 (C10-C16 Hydrocarbons)	2009/09/13			86	70 - 130	<0.1	mg/L	NC	40
3410453	F3 (C16-C34 Hydrocarbons)	2009/09/13			101	70 - 130	<0.1	mg/L	NC	40
3410453	F4 (C34-C50 Hydrocarbons)	2009/09/13			110	70 - 130	<0.1	mg/L	NC	40
3410453	O-TERPHENYL (sur.)	2009/09/13			102	70 - 130	104	%		
3410454	D10-ANTHRACENE (sur.)	2009/09/14			114	30 - 130	119	%		
3410454	D12-BENZO(A)PYRENE (sur.)	2009/09/14			104	30 - 130	110	%		
3410454	D8-ACENAPHTHYLENE (sur.)	2009/09/14			89	30 - 130	93	%		
3410454	TERPHENYL-D14 (sur.)	2009/09/14			101	30 - 130	104	%		
3410454	Acenaphthene	2009/09/14			109	30 - 130	<0.10	ug/L	NC	40
3410454	Acenaphthylene	2009/09/14			103	30 - 130	<0.10	ug/L	NC	40
3410454	Acridine	2009/09/14			89	30 - 130	<0.20	ug/L	NC	40
3410454	Anthracene	2009/09/14			85	30 - 130	<0.010	ug/L	NC	40
3410454	Benzo(a)anthracene	2009/09/14			107	30 - 130	<0.0085	ug/L	NC	40

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3410454	Benzo(b&j)fluoranthene	2009/09/14			111	30 - 130	<0.0085	ug/L	NC	40
3410454	Benzo(k)fluoranthene	2009/09/14			109	30 - 130	<0.0085	ug/L	NC	40
3410454	Benzo(g,h,i)perylene	2009/09/14			88	30 - 130	<0.0085	ug/L	NC	40
3410454	Benzo(c)phenanthrene	2009/09/14			117	30 - 130	<0.050	ug/L	NC	40
3410454	Benzo(a)pyrene	2009/09/14			104	30 - 130	<0.0075	ug/L	NC	40
3410454	Benzo[e]pyrene	2009/09/14			102	30 - 130	<0.050	ug/L	NC	40
3410454	Chrysene	2009/09/14			129	30 - 130	<0.0085	ug/L	NC	40
3410454	Dibenz(a,h)anthracene	2009/09/14			111	30 - 130	<0.0075	ug/L	NC	40
3410454	Dibenzo(a,e)pyrene	2009/09/14			93	30 - 130	<0.10	ug/L	NC	40
3410454	Dibenzo(a,h)pyrene	2009/09/14			128	30 - 130	<0.10	ug/L	NC	40
3410454	Dibenzo(a,i)pyrene	2009/09/14			100	30 - 130	<0.10	ug/L	NC	40
3410454	Dibenzo(a,l)pyrene	2009/09/14			36	30 - 130	<0.10	ug/L	NC	40
3410454	Fluoranthene	2009/09/14			109	30 - 130	<0.040	ug/L	NC	40
3410454	Fluorene	2009/09/14			108	30 - 130	<0.050	ug/L	NC	40
3410454	Indeno(1,2,3-cd)pyrene	2009/09/14			95	30 - 130	<0.0085	ug/L	NC	40
3410454	2-Methylnaphthalene	2009/09/14			99	30 - 130	<0.10	ug/L	NC	40
3410454	Naphthalene	2009/09/14			105	30 - 130	<0.10	ug/L	NC	40
3410454	Phenanthrene	2009/09/14			110	30 - 130	<0.050	ug/L	NC	40
3410454	Perylene	2009/09/14			107	30 - 130	<0.050	ug/L	NC	40
3410454	Pyrene	2009/09/14			105	30 - 130	<0.020	ug/L	NC	40
3410454	Quinoline	2009/09/14			102	30 - 130	<0.20	ug/L	NC	40
3410851	4-BROMOFLUOROBENZENE (sur.)	2009/09/12			99	70 - 130	96	%		
3410851	D4-1,2-DICHLOROETHANE (sur.)	2009/09/12			103	70 - 130	91	%		
3410851	D8-TOLUENE (sur.)	2009/09/12			111	70 - 130	103	%		
3410851	Bromodichloromethane	2009/09/14			93	70 - 130	<0.5	ug/L	NC	40
3410851	Bromoform	2009/09/14			83	70 - 130	<0.5	ug/L	NC	40
3410851	Bromomethane	2009/09/14			76	70 - 130	<2	ug/L	NC	40
3410851	Carbon tetrachloride	2009/09/14			79	70 - 130	<0.5	ug/L	NC	40
3410851	Chlorobenzene	2009/09/14			90	70 - 130	<0.5	ug/L	NC	40
3410851	Chlorodibromomethane	2009/09/14			92	70 - 130	<1	ug/L	NC	40
3410851	Chloroethane	2009/09/14			74	70 - 130	<1	ug/L	NC	40
3410851	Chloromethane	2009/09/14			73	70 - 130	<2	ug/L	33.2	40
3410851	1,2-dibromoethane	2009/09/14			101	70 - 130	<0.5	ug/L	NC	40
3410851	1,2-dichlorobenzene	2009/09/14			86	70 - 130	<0.5	ug/L	NC	40
3410851	1,3-dichlorobenzene	2009/09/14			90	70 - 130	<0.5	ug/L	NC	40
3410851	1,4-dichlorobenzene	2009/09/14			88	70 - 130	<0.5	ug/L	NC	40
3410851	1,1-dichloroethane	2009/09/14			87	70 - 130	<0.5	ug/L	NC	40
3410851	1,2-dichloroethane	2009/09/14			96	70 - 130	<0.5	ug/L	NC	40
3410851	1,1-dichloroethene	2009/09/14			75	70 - 130	<0.5	ug/L	NC	40
3410851	cis-1,2-dichloroethene	2009/09/14			89	70 - 130	<0.5	ug/L	NC	40

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3410851	trans-1,2-dichloroethene	2009/09/14			82	70 - 130	<0.5	ug/L	NC	40
3410851	Dichloromethane	2009/09/14			93	70 - 130	<2	ug/L	NC	40
3410851	1,2-dichloropropane	2009/09/14			91	70 - 130	<0.5	ug/L	NC	40
3410851	trans-1,3-dichloropropene	2009/09/14			87	70 - 130	<0.5	ug/L	NC	40
3410851	Methyl methacrylate	2009/09/14			81	70 - 130	<0.5	ug/L	NC	40
3410851	Styrene	2009/09/14			80	70 - 130	<0.5	ug/L	NC	40
3410851	1,1,1,2-tetrachloroethane	2009/09/14			99	70 - 130	<2	ug/L	NC	40
3410851	1,1,2,2-tetrachloroethane	2009/09/14			98	70 - 130	<2	ug/L	NC	40
3410851	Tetrachloroethene	2009/09/14			89	70 - 130	<0.5	ug/L	NC	40
3410851	1,2,3-trichlorobenzene	2009/09/14			74	70 - 130	<1	ug/L	NC	40
3410851	1,2,4-trichlorobenzene	2009/09/14			79	70 - 130	<1	ug/L	NC	40
3410851	1,3,5-trichlorobenzene	2009/09/14			84	70 - 130	<0.5	ug/L	NC	40
3410851	1,1,1-trichloroethane	2009/09/14			79	70 - 130	<0.5	ug/L	NC	40
3410851	Trichloroethene	2009/09/14			89	70 - 130	<0.5	ug/L	NC	40
3410851	Trichlorofluoromethane	2009/09/14			69 (1)	70 - 130	<0.5	ug/L	NC	40
3410851	1,2,4-trimethylbenzene	2009/09/14			80	70 - 130	<0.5	ug/L	5.9	40
3410851	1,3,5-trimethylbenzene	2009/09/14			84	70 - 130	<0.5	ug/L	8.7	40
3410851	Chloroform	2009/09/14			94	70 - 130	<0.5	ug/L	NC	40
3410851	cis-1,3-dichloropropene	2009/09/14			83	70 - 130	<0.5	ug/L	NC	40
3410851	Methyl-tert-butylether(MTBE)	2009/09/14			70	70 - 130	<0.5	ug/L	NC	40
3410851	1,1,2-trichloroethane	2009/09/14			104	70 - 130	<0.5	ug/L	NC	40
3410851	Vinyl chloride	2009/09/14			43 (1)	70 - 130	<0.5	ug/L	NC	40
3410853	4-BROMOFLUOROBENZENE (sur.)	2009/09/11			100	70 - 130	96	%		
3410853	D4-1,2-DICHLOROETHANE (sur.)	2009/09/11			102	70 - 130	98	%		
3410853	D8-TOLUENE (sur.)	2009/09/11			98	70 - 130	97	%		
3410853	Benzene	2009/09/14			113	70 - 130	<0.4	ug/L	NC	40
3410853	Toluene	2009/09/14			112	70 - 130	<0.4	ug/L	NC	40
3410853	Ethylbenzene	2009/09/14			112	70 - 130	<0.4	ug/L	NC	40
3410853	o-Xylene	2009/09/14			115	70 - 130	<0.4	ug/L	NC	40
3410853	m & p-Xylene	2009/09/14			118	70 - 130	<0.8	ug/L	NC	40
3410853	(C6-C10)	2009/09/14			98	70 - 130	<100	ug/L	NC	40
3410853	Xylenes (Total)	2009/09/14					<0.8	ug/L	NC	40
3410853	F1 (C6-C10) - BTEX	2009/09/14					<100	ug/L	NC	40
3411227	4-BROMOFLUOROBENZENE (sur.)	2009/09/11			99	70 - 130	106	%		
3411227	D4-1,2-DICHLOROETHANE (sur.)	2009/09/11			103	70 - 130	99	%		
3411227	D8-TOLUENE (sur.)	2009/09/11			98	70 - 130	101	%		
3411227	Bromodichloromethane	2009/09/11			110	70 - 130	<0.5	ug/L	NC	40
3411227	Bromoform	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40
3411227	Bromomethane	2009/09/11			109	70 - 130	<2	ug/L	NC	40
3411227	Carbon tetrachloride	2009/09/11			115	70 - 130	<0.5	ug/L	NC	40

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3411227	Chlorobenzene	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40
3411227	Chlorodibromomethane	2009/09/11			107	70 - 130	<1	ug/L	NC	40
3411227	Chloroethane	2009/09/11			102	70 - 130	<1	ug/L	NC	40
3411227	Chloroform	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40
3411227	Chloromethane	2009/09/11			113	70 - 130	<2	ug/L	NC	40
3411227	1,2-dibromoethane	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40
3411227	1,2-dichlorobenzene	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40
3411227	1,3-dichlorobenzene	2009/09/11			104	70 - 130	<0.5	ug/L	NC	40
3411227	1,4-dichlorobenzene	2009/09/11			102	70 - 130	<0.5	ug/L	NC	40
3411227	1,1-dichloroethane	2009/09/11			95	70 - 130	<0.5	ug/L	NC	40
3411227	1,2-dichloroethane	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40
3411227	1,1-dichloroethene	2009/09/11			110	70 - 130	<0.5	ug/L	NC	40
3411227	cis-1,2-dichloroethene	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40
3411227	trans-1,2-dichloroethene	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40
3411227	Dichloromethane	2009/09/11			105	70 - 130	<2	ug/L	NC	40
3411227	1,2-dichloropropane	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40
3411227	cis-1,3-dichloropropene	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40
3411227	trans-1,3-dichloropropene	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40
3411227	Methyl methacrylate	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40
3411227	Methyl-tert-butylether(MTBE)	2009/09/11			85	70 - 130	<0.5	ug/L	NC	40
3411227	Styrene	2009/09/11			107	70 - 130	<0.5	ug/L	NC	40
3411227	1,1,1,2-tetrachloroethane	2009/09/11			105	70 - 130	<2	ug/L	NC	40
3411227	1,1,2,2-tetrachloroethane	2009/09/11			106	70 - 130	<2	ug/L	NC	40
3411227	Tetrachloroethene	2009/09/11			95	70 - 130	<0.5	ug/L	NC	40
3411227	1,2,3-trichlorobenzene	2009/09/11			92	70 - 130	<1	ug/L	NC	40
3411227	1,2,4-trichlorobenzene	2009/09/11			97	70 - 130	<1	ug/L	NC	40
3411227	1,3,5-trichlorobenzene	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40
3411227	1,1,1-trichloroethane	2009/09/11			103	70 - 130	<0.5	ug/L	NC	40
3411227	1,1,2-trichloroethane	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40
3411227	Trichloroethene	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40
3411227	Trichlorofluoromethane	2009/09/11			108	70 - 130	<0.5	ug/L	NC	40
3411227	1,2,4-trimethylbenzene	2009/09/11			105	70 - 130	<0.5	ug/L	NC	40
3411227	1,3,5-trimethylbenzene	2009/09/11			106	70 - 130	<0.5	ug/L	NC	40
3411227	Vinyl chloride	2009/09/11			127	70 - 130	<0.5	ug/L	NC	40
3412196	Dissolved Aluminum (Al)	2009/09/11			95	80 - 120	<0.001	mg/L	NC	20
3412196	Dissolved Antimony (Sb)	2009/09/11			91	80 - 120	<0.0002	mg/L	NC	20
3412196	Dissolved Arsenic (As)	2009/09/11			87	80 - 108	<0.0002	mg/L	NC	20
3412196	Dissolved Beryllium (Be)	2009/09/11			98	80 - 120	<0.001	mg/L	NC	20
3412196	Dissolved Chromium (Cr)	2009/09/11			85	80 - 120	<0.001	mg/L	NC	20
3412196	Dissolved Cobalt (Co)	2009/09/11			90	80 - 120	<0.0003	mg/L	NC	20

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3412196	Dissolved Copper (Cu)	2009/09/11			85	81 - 114	<0.0002	mg/L	NC	20
3412196	Dissolved Lead (Pb)	2009/09/11			88	82 - 112	<0.0002	mg/L	NC	20
3412196	Dissolved Molybdenum (Mo)	2009/09/11			84	80 - 106	<0.0002	mg/L	NC	20
3412196	Dissolved Nickel (Ni)	2009/09/11			84	82 - 112	<0.0005	mg/L	NC	20
3412196	Dissolved Selenium (Se)	2009/09/11			85	81 - 120	<0.0002	mg/L	NC	20
3412196	Dissolved Silver (Ag)	2009/09/11			89	80 - 117	<0.0001	mg/L	NC	20
3412196	Dissolved Thallium (Tl)	2009/09/11			87	80 - 120	<0.0002	mg/L	NC	20
3412196	Dissolved Tin (Sn)	2009/09/11			87	80 - 112	<0.001	mg/L	NC	20
3412196	Dissolved Titanium (Ti)	2009/09/11			86	80 - 110	<0.001	mg/L	NC	20
3412196	Dissolved Uranium (U)	2009/09/11			84	80 - 114	<0.0001	mg/L	NC	20
3412196	Dissolved Vanadium (V)	2009/09/11			88	80 - 119	<0.001	mg/L	NC	20
3412196	Dissolved Zinc (Zn)	2009/09/11			87	80 - 120	<0.003	mg/L	NC	20
3412798	4-BROMOFLUOROBENZENE (sur.)	2009/09/12			100	70 - 130	105	%		
3412798	D4-1,2-DICHLOROETHANE (sur.)	2009/09/12			98	70 - 130	104	%		
3412798	D8-TOLUENE (sur.)	2009/09/12			101	70 - 130	101	%		
3412798	Bromodichloromethane	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Bromoform	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Bromomethane	2009/09/12			78	70 - 130	<2	ug/L		
3412798	Carbon tetrachloride	2009/09/12			99	70 - 130	<0.5	ug/L		
3412798	Chlorobenzene	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	Chlorodibromomethane	2009/09/12			97	70 - 130	<1	ug/L		
3412798	Chloroethane	2009/09/12			98	70 - 130	<1	ug/L		
3412798	Chloroform	2009/09/12			99	70 - 130	<0.5	ug/L		
3412798	Chloromethane	2009/09/12			94	70 - 130	<2	ug/L		
3412798	1,2-dibromoethane	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	1,2-dichlorobenzene	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	1,3-dichlorobenzene	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	1,4-dichlorobenzene	2009/09/12			94	70 - 130	<0.5	ug/L		
3412798	1,1-dichloroethane	2009/09/12			96	70 - 130	<0.5	ug/L		
3412798	1,2-dichloroethane	2009/09/12			96	70 - 130	<0.5	ug/L		
3412798	1,1-dichloroethene	2009/09/12			99	70 - 130	<0.5	ug/L		
3412798	cis-1,2-dichloroethene	2009/09/12			99	70 - 130	<0.5	ug/L		
3412798	trans-1,2-dichloroethene	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Dichloromethane	2009/09/12			92	70 - 130	<2	ug/L		
3412798	1,2-dichloropropane	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	cis-1,3-dichloropropene	2009/09/12			93	70 - 130	<0.5	ug/L		
3412798	trans-1,3-dichloropropene	2009/09/12			92	70 - 130	<0.5	ug/L		
3412798	Methyl methacrylate	2009/09/12			101	70 - 130	<0.5	ug/L		
3412798	Methyl-tert-butylether (MTBE)	2009/09/12			108	70 - 130	<0.5	ug/L		
3412798	Styrene	2009/09/12			99	70 - 130	<0.5	ug/L		

Maxxam Job #: A948731
Report Date: 2010/01/14

FRANZ ENVIRONMENTAL INC.
Client Project #: 1748-0901
Site Reference: CAMBRIDGE BAY
Sampler Initials: VDC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3412798	1,1,1,2-tetrachloroethane	2009/09/12			98	70 - 130	<2	ug/L		
3412798	1,1,2,2-tetrachloroethane	2009/09/12			99	70 - 130	<2	ug/L		
3412798	Tetrachloroethene	2009/09/12			97	70 - 130	<0.5	ug/L		
3412798	1,2,3-trichlorobenzene	2009/09/12			85	70 - 130	<1	ug/L		
3412798	1,2,4-trichlorobenzene	2009/09/12			90	70 - 130	<1	ug/L		
3412798	1,3,5-trichlorobenzene	2009/09/12			101	70 - 130	<0.5	ug/L		
3412798	1,1,1-trichloroethane	2009/09/12			96	70 - 130	<0.5	ug/L		
3412798	1,1,2-trichloroethane	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Trichloroethene	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	Trichlorofluoromethane	2009/09/12			98	70 - 130	<0.5	ug/L		
3412798	1,2,4-trimethylbenzene	2009/09/12			101	70 - 130	<0.5	ug/L		
3412798	1,3,5-trimethylbenzene	2009/09/12			101	70 - 130	<0.5	ug/L		
3412798	Vinyl chloride	2009/09/12			106	70 - 130	<0.5	ug/L		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

012(3)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80782 **CHAIN OF CUSTODY**

Page: 1 of 2

Invoice To: Require Report? Yes ☐ No ☐
Company Name: Franz environmental
Contact Name: James Smith
Address: 308-108 Mainland St Van
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith
jsmith@franzenvironmental.com
jkeenlside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: VDC/JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☐ CCME
☒ OTHER Ontario

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter	Flashpoint	pH (1:1)	TCLP	BTEX	Metals	WATERS: BTEX F1 ☒ VOCs	BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package	Turb	F	REGULATED METALS (CCME / AT1)[3] Total Preserved	Total Not Preserved	Dissolved Preserved Filtered	Dissolved Not Preserved Not Filtered	Mercury Total	Mercury Dissolved	Ammonia	TKN	COD	TOC	DOC	OTHER TEST(S) PAH	PCBs	9 Lycols Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	1-09-5M	W	2009/09/01												X	X					X		X							X	X	X		15
2	1-09-6M	W	2009/09/01												X	X					X		X								X		12	
3	1-09-2M	W	2009/09/01												X	X					X		X											10
4	FR-2	W	2009/09/01																											X	X			5
5	FR-3	W	2009/09/01												X	X					X		X								X			10
6	1-09-1M	W	2009/09/01												X	X					X		X											10
7	5-09-MW3	W	2009/09/01												X	X					X		X							X				12
8	1-09-3M	W	2009/09/01												X	X					X		X									X		11
9	FR-1	W	2009/09/01												X	X					X		X							X	ARRIVED AT DEPOT			12
10	2-09-MW4	W	2009/09/02												X	X					X		X							X	X		SEP 04 2009		15
11	3-09-5M		2009/09/02												X	X					X		X							X					12
12	6-09-MW1	W	2009/09/01												X	X					X		X							X	TEMP: 6.1 5.4.1			12

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: 0839

Relinquished By: Vanessa Dodd Date/Time: Sept 2/2009
Sign and Print:
COMMENTS/SPECIAL INSTRUCTIONS:

RECEIVED SEP 05 2009

JARS USED & NOT SUBMITTED
Received By: 08/08/09 9:50 MW
15:SD,JC
CUSTODY SEAL (YES) / NO
6+7+5 see temp tracking form.

Temperature			Ice
1	4	1	
1	2	3	
1	1	1	

012(3)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80781

CHAIN OF CUSTODY

Page: 2 of 2

Invoice To: Require Report? Yes ☐ No ☐	Report To:	
Company Name: FRANZ		PO # / AFE #:
Contact Name: James smith		Quotation #:
Address:		Project #: 1748-0901
Prov: PC:	Prov: PC:	Project Name:
Contact #s: Ph: 604-632-9941 Fax:	Ph: Fax:	Location: Cambridge Bay
		Sampler's Initials:

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
- ☐ AT1
- ☐ CCME
- ☒ OTHER

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):
ontario

SERVICE REQUESTED:
- ☐ RUSH (Please ensure you contact the lab to reserve)
  Date Required:
- ☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☐ BTEX F1 ☒ VOCs	☐ BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3] Total ☐ Preserved ☐ Not Preserved	Dissolved ☒ Preserved ☐ Not Filtered ☒ Filtered	Mercury ☐ Total ☒ Dissolved	☐ Ammonia ☐ TKN ☐ COD ☐ TOC ☐ DOC	OTHER TEST(S): PAH	*HOLD for 60 Days	# of Containers Submitted
1	3-09-4M	W	2009/09/02								X	X			X	X		X		12
2	3-09-6M	W	2009/09/02								X	X			X	X		X		12
3																				
4																				
5																				
6																				
7																				
8																				
9																		ARRIVED AT DEPOT:		
10																		SEP 04 2009		
11																				
12																		TEMP: 9/11/10/01		

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: Viviane Dolle Date/Time: Sept 2 2009

Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
	05/09/09 9:50 AM	1 4 1 / 1 2 3 / 1 1 1	
	CUSTODY SEAL YES / NO		

0836

Your Project #: A948731
Your C.O.C. #: N/A

Attention: Brian Issler
Maxxam Analytics
2021-41st Ave NE
Calgary, AB
T2E 6P2

Report Date: 2009/09/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9B7614
Received: 2009/09/09, 08:48

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
OC Pesticides (Selected) & PCB (1)	2	2009/09/11	2009/09/12	CAM SOP-00307	SW846 8081,8082

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Marijane Cruz
14 Sep 2009 16:43:56 -04:00

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

MARIJANE CRUZ, Project Manager
Email: Marijane.Cruz@maxxamanalytics.com
Phone# (905) 817-5756

==========

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 CALA 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 #: A9B7614
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A948731

ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)

Maxxam ID		DQ1891	DQ1892		
Sampling Date		2009/09/01	2009/09/02		
	Units	**Q62985-03R \ 1-09-3M**	**Q62987-03R \ 2-09-MW4**	**RDL**	**QC Batch**
Pesticides & Herbicides					
Aldrin + Dieldrin	ug/L	ND	ND	0.005	1936311
Hexachlorobutadiene	ug/L	ND	ND	0.009	1936311
Hexachlorocyclopentadiene	ug/L	ND	ND	0.02	1936311
Hexachloroethane	ug/L	ND	ND	0.01	1936311
Aldrin	ug/L	ND	ND	0.005	1936311
a-BHC	ug/L	ND	ND	0.005	1936311
b-BHC	ug/L	ND	ND	0.005	1936311
d-BHC	ug/L	ND	ND	0.005	1936311
a-Chlordane	ug/L	ND	ND	0.005	1936311
g-Chlordane	ug/L	ND	ND	0.005	1936311
Chlordane (Total)	ug/L	ND	ND	0.005	1936311
o,p-DDD	ug/L	ND	ND	0.005	1936311
p,p-DDD	ug/L	ND	ND	0.005	1936311
o,p-DDD + p,p-DDD	ug/L	ND	ND	0.005	1936311
o,p-DDE	ug/L	ND	ND	0.005	1936311
p,p-DDE	ug/L	ND	ND	0.005	1936311
o,p-DDE + p,p-DDE	ug/L	ND	ND	0.005	1936311
o,p-DDT	ug/L	ND	ND	0.005	1936311
p,p-DDT	ug/L	ND	ND	0.005	1936311
o,p-DDT + p,p-DDT	ug/L	ND	ND	0.005	1936311
DDT+ Metabolites	ug/L	ND	ND	0.005	1936311
Dieldrin	ug/L	ND	ND	0.005	1936311
Endosulfan I	ug/L	ND	ND	0.005	1936311
Endosulfan II	ug/L	ND	ND	0.005	1936311
Endosulfan sulfate	ug/L	ND	ND	0.005	1936311
Total Endosulfan	ug/L	ND	ND	0.005	1936311
Endrin	ug/L	ND	ND	0.005	1936311
Endrin aldehyde	ug/L	ND	ND	0.005	1936311
Endrin ketone	ug/L	ND	ND	0.005	1936311
Heptachlor	ug/L	ND	ND	0.005	1936311
Heptachlor epoxide	ug/L	ND	ND	0.005	1936311
Hexachlorobenzene	ug/L	ND	ND	0.005	1936311
Lindane	ug/L	ND	ND	0.003	1936311
Methoxychlor	ug/L	ND	ND	0.01	1936311

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7614
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A948731

ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)

Maxxam ID		DQ1891	DQ1892		
Sampling Date		2009/09/01	2009/09/02		
	Units	**Q62985-03R \ 1-09-3M**	**Q62987-03R \ 2-09-MW4**	**RDL**	**QC Batch**
Mirex	ug/L	ND	ND	0.005	1936311
Octachlorostyrene	ug/L	ND	ND	0.005	1936311
Toxaphene	ug/L	ND	ND	0.2	1936311
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	76	105		1936311
Decachlorobiphenyl	%	104	75		1936311

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7614
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A948731

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1936311	2,4,5,6-Tetrachloro-m-xylene	2009/09/12	110	40 - 130	112	40 - 130	108	%		
1936311	Decachlorobiphenyl	2009/09/12	104	40 - 130	85	40 - 130	87	%		
1936311	Hexachlorobutadiene	2009/09/12	88	30 - 130	123	30 - 130	ND, RDL=0.009	ug/L		
1936311	Hexachlorocyclopentadiene	2009/09/12	77	30 - 130	109	30 - 130	ND, RDL=0.02	ug/L		
1936311	Hexachloroethane	2009/09/12	97	N/A	123	N/A	ND, RDL=0.01	ug/L		
1936311	Aldrin	2009/09/12	112	30 - 130	102	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	a-BHC	2009/09/12	122	30 - 130	86	30 - 130	ND, RDL=0.005	ug/L		
1936311	b-BHC	2009/09/12	107	30 - 130	114	30 - 130	ND, RDL=0.005	ug/L		
1936311	d-BHC	2009/09/12	110	30 - 130	119	30 - 130	ND, RDL=0.005	ug/L		
1936311	a-Chlordane	2009/09/12	112	30 - 130	114	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	g-Chlordane	2009/09/12	117	30 - 130	107	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	o,p-DDD	2009/09/12	107	40 - 130	106	40 - 130	ND, RDL=0.005	ug/L		
1936311	p,p-DDD	2009/09/12	105	30 - 130	100	30 - 130	ND, RDL=0.005	ug/L		
1936311	o,p-DDE	2009/09/12	113	40 - 130	104	40 - 130	ND, RDL=0.005	ug/L		
1936311	p,p-DDE	2009/09/12	113	30 - 130	102	30 - 130	ND, RDL=0.005	ug/L		
1936311	o,p-DDT	2009/09/12	117	40 - 130	111	40 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	p,p-DDT	2009/09/12	115	30 - 130	120	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	Dieldrin	2009/09/12	105	36 - 130	113	36 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	Endosulfan I	2009/09/12	107	30 - 130	103	30 - 130	ND, RDL=0.005	ug/L		
1936311	Endosulfan II	2009/09/12	109	30 - 130	89	30 - 130	ND, RDL=0.005	ug/L		
1936311	Endosulfan sulfate	2009/09/12	114	30 - 130	114	30 - 130	ND, RDL=0.005	ug/L		
1936311	Endrin	2009/09/12	114	30 - 130	121	30 - 130	ND, RDL=0.005	ug/L		
1936311	Endrin aldehyde	2009/09/12	68	40 - 130	81	40 - 130	ND, RDL=0.005	ug/L		
1936311	Endrin ketone	2009/09/12	113	40 - 130	107	40 - 130	ND, RDL=0.005	ug/L		
1936311	Heptachlor	2009/09/12	103	30 - 130	104	30 - 130	ND, RDL=0.005	ug/L		
1936311	Heptachlor epoxide	2009/09/12	89	30 - 130	89	30 - 130	ND, RDL=0.005	ug/L		
1936311	Hexachlorobenzene	2009/09/12	120	30 - 130	126	30 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	Lindane	2009/09/12	118	30 - 130	86	30 - 130	ND, RDL=0.003	ug/L	NC	40
1936311	Methoxychlor	2009/09/12	109	40 - 130	119	40 - 130	ND, RDL=0.014	ug/L		
1936311	Mirex	2009/09/12	112	40 - 130	102	40 - 130	ND, RDL=0.005	ug/L	NC	40
1936311	Octachlorostyrene	2009/09/12	150(1)	30 - 130	105	30 - 130	ND, RDL=0.005	ug/L		
1936311	Toxaphene	2009/09/12					ND, RDL=0.2	ug/L	NC	40
1936311	Aldrin + Dieldrin	2009/09/12					ND, RDL=0.005	ug/L		
1936311	Chlordane (Total)	2009/09/12					ND, RDL=0.005	ug/L	NC	40
1936311	o,p-DDD + p,p-DDD	2009/09/12					ND, RDL=0.005	ug/L		
1936311	o,p-DDE + p,p-DDE	2009/09/12					ND, RDL=0.005	ug/L		
1936311	o,p-DDT + p,p-DDT	2009/09/12					ND, RDL=0.005	ug/L	NC	40

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: A9B7614
Report Date: 2009/09/14

Maxxam Analytics
Client Project #: A948731

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
1936311	DDT+ Metabolites	2009/09/12					ND, RDL=0.005	ug/L		
1936311	Total Endosulfan	2009/09/12					ND, RDL=0.005	ug/L		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery in the matrix spike was above the upper control limit. This may represent a high bias in some results for this specific analyte. For results that were not detected (ND), this potential bias has no impact.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Validation Signature Page

Maxxam Job #: A9B7614

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

CHARLES ANCKER, B.Sc., M.Sc., C.Chem, Senior Analyst

==========

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 CALA have approved this reporting process and electronic report format.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

012(3)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80782 **CHAIN OF CUSTODY**

Page: 1 of 2

Invoice To: Require Report? Yes ☐ No ☐

Company Name: Franz environmental
Contact Name: James Smith
Address: 308-108 mainland st van
Prov: BC PC:
Contact #s: Ph: 604-632-9941 Fax: 604-632-9942

Report To: James Smith

jsmith@franzenvironmental.com
jkeentside@franzenvironmental.com
Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials: VDC/JK

DETECTION LIMIT REQUIREMENTS:
Check the applicable criterion and indicate land use
☐ AT1
☐ CCME
☒ OTHER Ontario

REPORT DISTRIBUTION:
EMAIL ADDRESS(S):

SERVICE REQUESTED:
☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS: BTEX F1-F4	Sieve (75 micron)	Salinity 4	Regulated Metals (CCME / AT1)[1]	Assessment ICP Metals[2]	Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS: ☒ BTEX F1-F4 VOCs	☐ BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[1]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☒ Preserved ☒ Filtered ☐ Not Preserved ☐ Not Filtered	Mercury ☐ Total ☒ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): PAH	PCBs	Glycols	Pesticides	*HOLD for 60 Days	# of Containers Submitted
1	1-09-5M	W	2009/09/01								X	X			X	X			X		X			15
2	1-09-6M	W	2009/09/01								X	X			X	X				X			13	12
3	1-09-2M	W	2009/09/01								X	X			X	X								10
4	FR-2	W	2009/09/01																X		X			5
5	FR-3	W	2009/09/01								X	X			X	X				X				10
6	1-09-1M	W	2009/09/01								X	X			X	X								10
7	5-09-MW3	W	2009/09/01								X	X			X	X			X					12
8	1-09-3M	W	2009/09/01								X	X			X	X					X			11
9	FR-1	W	2009/09/01								X	X			X	X			X	ARRIVED AT DEPOT				12
10	2-09-MW4	W	2009/09/02								X	X			X	X			X	X	X	SEP 04 2009		15
11	3-09-5M		2009/09/02								X	X			X	X			X					12
12	6-09-MW1	W	2009/09/01								X	X			X	X			X	TEMP: 6/5/4/1				12

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #: 0839

Relinquished By: Vanessa Dodd Date/Time: Sept 2/2009

Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

# JARS USED & NOT SUBMITTED	Received By	Temperature	Ice
SEP 0	05/08/09	1 4 1	
15:5D,JC	9:50 MW	1 2 3	
	CUSTODY SEAL (YES) / NO		

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD 00357 Rev6 08/12

012(3)

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8 | Ph: (403) 291-3077 | Fax: (403) 735-2240 | Toll free: (800) 386-7247
Edmonton: 9331 – 48 Street, T6B 2R4 | Ph: (780) 465-1212 | Fax: (780) 450-4187 | Toll free: (877) 465-8889
www.maxxamanalytics.com

80781 **CHAIN OF CUSTODY**

Page: 2 of 2

Invoice To: Require Report? Yes ☐ No ☐

Company Name: FRANZ
Contact Name:
Address: James Smith
Prov: PC:
Contact #s: Ph: 604-632-9941 Fax:

Report To:

Prov: PC:
Ph: Fax:

PO # / AFE #:
Quotation #:
Project #: 1748-0901
Project Name:
Location: Cambridge Bay
Sampler's Initials:

DETECTION LIMIT REQUIREMENTS:

Check the applicable criterion and indicate land use

☐ AT1
☐ CCME
☒ OTHER ontario

REPORT DISTRIBUTION:

EMAIL ADDRESS(S):

SERVICE REQUESTED:

☐ RUSH (Please ensure you contact the lab to reserve)
Date Required:
☒ REGULAR Turnaround (5 to 7 Days)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	SOILS (footnotes defined on back): BTEX F1-F4	Sieve [75 micron]	Salinity 4	Regulated Metals (CCME / AT1)[3]	Assessment ICP Metals[3]	☐ Paint Filter ☐ Flashpoint ☐ pH (1:1)	TCLP ☐ BTEX ☐ Metals	WATERS (footnotes defined on back): ☐ BTEX F1 ☒ VOCs	☐ BTEX F1-F2 ☒ BTEX F1-F4	Routine Water Package ☐ Turb ☐ F	REGULATED METALS (CCME / AT1)[3]: Total ☐ Preserved ☐ Not Preserved	Dissolved ☒ Preserved ☐ Not Filtered	Mercury ☐ Total ☒ Dissolved	☐ Ammonia ☐ TKN ☐ COD	☐ TOC ☐ DOC	OTHER TEST(S): PAH	*HOLD for 60 Days	# of Containers Submitted
1	3-09-4H	W	2009/09/02								X	X			X	X			X		12
2	3-09-6H	W	2009/09/02								X	X			X	X			X		12
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ARRIVED AT DEPOT:
SEP 04 2009
TEMP: 9/1 0/1 0

*All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

0836

Maxxam Job #:

Relinquished By: Viviane Dubé Date/Time: Sept 2 2009
Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

JARS USED & NOT SUBMITTED

Received By: 05/09/09 9:50 BN

CUSTODY SEAL YES / NO

Temperature			Ice
1	4	1	
1	2	3	
1	1	1	

Maxxam Analytics International Corporation o/a Maxxam Analytics CAL FCD-00357 Rev6 08/12

Maxxam Analytics

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5779 www.maxxamanalytics.com

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#10988 Franz Environmental Inc	Company Name:		Quotation #:	A95305	MAXXAM JOB #:	BOTTLE ORDER #: 159561
Contact Name:	Lillian Ellis	Contact Name:	Jennifer Keenliside	P.O. #:	1747-0901		
Address:	329 Churchill Ave N Suite 200 Ottawa ON K1Z 5B8	Address:		Project #:	P-2963	CHAIN OF CUSTODY #: C#159561-13-01	PROJECT MANAGER: MELISSA MORRISON
Phone:	(613)721-0555 Fax: (613)721-0029	Phone:	Fax:	Project Name:			
Email:	lellis@franzenvironmental.com	Email:	jkeenliside@franzenvironmental.com	Site Location:	Resolute Bay		
				Sampled By:	ET		

REGULATORY CRITERIA:
☐ MISA Reg. 153/04 Sewer Use ☐ Sanitary ☐ Storm ☐ Combined
☐ PWQO ☐ Table 1 ☐ Table 2 ☐ Table 3 ☐ Table 6 ☐ Residential/Parkland ☐ Industrial/Commercial ☐ Medium/Fine ☐ Coarse Municipality
☐ Reg. 558
Other (specify) Report Criteria on C of A ? ☐

SPECIAL INSTRUCTIONS
GW= Ground water
SW=Surface water

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (Please be specific):

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	Petroleum Hydro. CCME F1 & BTEX in Water	Petroleum Hydrocarbons F2-F4 in Water	PWQO Metals inc Cr6, Hg, Al, TP	OC Pesticides (Selected) & PCB	VOCs	PAH Compounds in Water by GC/MS (SIM)	Glycols in Water by GC/FID	# of Bottles	Comments
1		2-MW-8	22/08/09	12:00	GW			X	X	X	X	X	X		8 4-Vial	Limited sample Some only have 1 Bottle for parameter
2		2-MW-1	22/08/09	10:30	GW			X	X	X		X	X		6 4-Vial	
3		2-MW-2	22/08/09	11:30	GW			X	X	X	X	X	X	X	8 4-Vial	
4		1-MW-13	22/08/09	11:00	GW			X	X	X	X	X	X		7 4-Vial	
5		1-MW-14	22/08/09	10:00	GW			X	X	X	X	X	X		7 4-Vial	[illegible]
6		2-SW-19-1	20/08/09	21:05	SW			X		X			X		7 2-vial	
7		FR-4	20/08/09	—	SW									X	1	Ran out of Proper bottles use 1000mL
8																
9																REC'D IN OTTAWA
10																

25-Aug-09 11:05
MELISSA MORRISON
A9A9979
JOE OTT-001

FLAG : Sample Inspection
Resolved ☐ By:_____
Date:_____

TURNAROUND TIME (TAT) REQUIRED:
PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) ☐
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ (call lab for #)

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
Elliott Tonaskat	09/08/22	15:30	Jennifer Wright	25Aug09	11:05am	

Laboratory Use Only
Time Sensitive ☐ Temperature (°C) on Receipt 8/6/7 Custody Seal Intact on Cooler? ☐ Yes ☐ No

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

10/8/6
9/5/13

Maxxam Analytics

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5779 www.maxxamanalytics.com

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:

Company Name: #10988 Franz Environmental Inc
Contact Name: Lillian Ellis
Address: 329 Churchill Ave N Suite 200, Ottawa ON K1Z 5B8
Phone: (613)721-0555 Fax: (613)721-0029
Email: lellis@franzenvironmental.com

REPORT INFORMATION (if differs from invoice):

Company Name:
Contact Name: Jennifer Keenliside
Address:
Phone: Fax:
Email: jkeenliside@franzenvironmental.com

PROJECT INFORMATION:

Quotation #: A95305
P.O. #: 1747-0901
Project #: P-2963
Project Name:
Site Location: Resolute Bay
Sampled By: ET

Laboratory Use Only:

MAXXAM JOB #:
BOTTLE ORDER #: 159533
CHAIN OF CUSTODY #: C#159533-12-01
PROJECT MANAGER: MELISSA MORRISON

REGULATORY CRITERIA:

☐ MISA Reg. 153/04 Sewer Use ☐ Sanitary ☐ Storm ☐ Combined
☐ PWQO ☐ Table 1 ☐ Table 2 ☐ Table 3 ☐ Table 6 ☐ Residential/Parkland ☐ Industrial/Commercial ☐ Medium/Fine ☐ Coarse
☐ Reg. 558 Municipality
Other (specify) Report Criteria on C of A ? ☐

SPECIAL INSTRUCTIONS

SD = Sediment
SL = Soil

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) ☐
Date Required: Time Required:
Rush Confirmation Number: *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	Petroleum Hydro. CCME F1 & BTEX in Soil	Petroleum Hydrocarbons F2-F4 in Soil	F4G (If Required)	OC Pesticides (Selected) & PCB	O'Reg 153 Metals inc Hg, HWSB, Cr6	Glycols in Soil by GC-FID	VOCs	PAH Compounds in Soil by GC/MS (SIM)	Sieves, Various Sizes TOC + grain size	Soil Texture (% sand, %silt, %clay)	# of Bottles	Comments
1	~~FR-6~~	FR-6	20/08/09		SL			X	X	X	X	X		X	X	X		4 1-Bag	NO TOC JUST Grain size
2		1-TP-8	20/08/09		SL			X	X	X					X			3 1-Bag	NO PESTICIDES OC
3		~~2-TP-3~~																	
4		2-SD-19-1	20/08/09		SD			X	X	X	X	X			X			4 1-Bag	REC'D IN OTTAWA
5		1-TP-12	22/08/09		SL									X				1	
6																			
7																			
8																			
9																			
10																			

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
Elliott Tomaskat.	09/08/22	15:30	Jennifer Wright	25 Aug 09	11:05am	

Laboratory Use Only: Time Sensitive ☐ | Temperature (°C) on Receipt 8/6/7 | Custody Seal Intact on Cooler? ☐ Yes ☐ No

10/8/6
9/5/13

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

APPENDIX G

Analytical Results

SOIL SAMPLING

	Sample Date	Station ID	Easting (UTM)	Northing (UTM)	Media	On hold	PHC	PCB	Metals	VOC	PAH	Pest.	Glycol	TOC	Sieve
APEC 1 - Screening Plant / Boneyard	29-Aug-09	1-09-1M-1	493936	7666738	SOIL		*								
	29-Aug-09	1-09-2M-1	493954	7666752	SOIL		*	*	*	*	*	*	*		
	29-Aug-09	1-09-3M-1	493957	7666771	SOIL		*		*						
	30-Aug-09	1-09-4M-1	493938	7666751	SOIL		*		*						
	30-Aug-09	1-09-5M-1	493935	7666767	SOIL		*		*	*					
	30-Aug-09	1-09-6M-1	493948	7666759	SOIL		*	*	*	*	*				*
	30-Aug-09	1-09-DUP-1	493938	7666751	SOIL		*								
APEC 2 - Shoreline Disposal Area	29-Aug-09	2-09-TP1-1	493311	7666612	SOIL			*							
	29-Aug-09	2-09-TP1-2	493311	7666612	SOIL		*		*	*					
	29-Aug-09	2-09-TP2-1	493293	7666596	SOIL	*									
	29-Aug-09	2-09-TP2-2	493293	7666596	SOIL		*		*	*	*	*			
	29-Aug-09	2-09-TP3-1	493281	7666624	SOIL		*		*	*	*				
	29-Aug-09	2-09-TP3-2	493281	7666624	SOIL	*									
	29-Aug-09	2-09-TP4	493252	7666600	SOIL		*		*	*					
	29-Aug-09	2-09-TP5-1	494885	7665891	SOIL		*		*	*					
	29-Aug-09	GR-2	494885	7665891	SOIL		*		*	*					
	29-Aug-09	2-09-TP6-1	494736	7666019	SOIL		*		*	*					
	29-Aug-09	2-09-TP7-1	494623	7666122	SOIL		*		*	*					
	29-Aug-09	2-09-TP8-1	494467	7666255	SOIL		*		*			*			
	29-Aug-09	2-09-TP9-1	494311	7666402	SOIL		*	*	*		*				
	29-Aug-09	2-09-TP10-1	494089	7666523	SOIL		*		*	*					
APEC 3 - Former Fire Fighting Training Area	29-Aug-09	3-09-1-1	493531	7666776	SOIL		*			*	*				
	29-Aug-09	3-09-2-1	493554	7666787	SOIL										*
	29-Aug-09	3-09-2-2	493554	7666787	SOIL		*								
	29-Aug-09	3-09-3-1	493560	7666757	SOIL	*									
	29-Aug-09	3-09-3-2	493560	7666757	SOIL		*								
	29-Aug-09	3-09-4M-1	493567	7666774	SOIL	*									
	29-Aug-09	3-09-4M-2	493567	7666774	SOIL		*								*
	29-Aug-09	3-09-4M-3	493567	7666774	SOIL		*	*		*	*				
	29-Aug-09	3-09-DUP-1	493531	7666776	SOIL		*	*			*				
	29-Aug-09	3-09-5M-1	493599	7666746	SOIL	*									
	29-Aug-09	3-09-5M-2	493599	7666746	SOIL		*								
	29-Aug-09	3-09-5M-3	493599	7666746	SOIL	*									
	29-Aug-09	3-09-6M-1	493591	7666730	SOIL	*									
	29-Aug-09	3-09-6M-2	493591	7666730	SOIL	*									
	29-Aug-09	3-09-6M-3	493591	7666730	SOIL		*								
	29-Aug-09	3-09-DUP-2	493591	7666730	SOIL		*								
APEC 4 - Former F.H. Ross Tank Site	30-Aug-09	4A-09-1M-1	495240	7666203	SOIL		*								
	30-Aug-09	4A-09-2M-1	495243	7666189	SOIL		*								
	30-Aug-09	4A-09-3M-1	495230	7666211	SOIL		*		*	*	*				
	30-Aug-09	4A-09-DUP-1	495243	7666189	SOIL		*								
	30-Aug-09	4A-09-4-1	495217	7666198	SOIL		*		*	*	*				
	30-Aug-09	4A-09-5-1	495214	7666186	SOIL		*		*	*	*				
	30-Aug-09	4A-09-6-1	495235	7666216	SOIL		*								
	30-Aug-09	4A-09-6-2	495235	7666216	SOIL		*								
	30-Aug-09	4A-09-7-1	495245	7666212	SOIL		*								
	30-Aug-09	4A-09-8-1	495205	7666175	SOIL		*								
APEC 5 - Former AST	30-Aug-09	5-09-TP1-1	495335	7666410	SOIL		*		*	*	*				
	30-Aug-09	5-09-TP1-2	495335	7666410	SOIL	*									
	30-Aug-09	5-09-TP1-3	495335	7666410	SOIL	*									
	30-Aug-09	5-09-TP2-1	495344	7666402	SOIL		*		*	*	*				
	30-Aug-09	5-09-TP2-2	495344	7666402	SOIL	*									
	30-Aug-09	5-09-TP2-3	495344	7666402	SOIL	*									
	30-Aug-09	5-09-TP3-1	495352	7666408	SOIL		*		*	*	*				
	30-Aug-09	5-09-TP3-2	495352	7666408	SOIL	*									
	30-Aug-09	5-09-TP3-3	495352	7666408	SOIL	*									
	30-Aug-09	5-09-TP3-4	495352	7666408	SOIL	*									
	30-Aug-09	5-09-TP4-1	495343	7666417	SOIL	*									
	30-Aug-09	5-09-TP4-2	495343	7666417	SOIL	*									
	30-Aug-09	5-09-TP4-3	495343	7666417	SOIL		*		*	*	*				
APEC 6 - Building T-4	30-Aug-09	6-09-TP1-1	495305	7666327	SOIL	*									
	30-Aug-09	6-09-TP1-2	495305	7666327	SOIL	*									
	30-Aug-09	6-09-TP1-3	495305	7666327	SOIL		*		*	*	*				

Cambridge Bay Phase II/III Sampling Plan

	Sample Date	Station ID	Easting (UTM)	Northing (UTM)	Media	On hold	PHC	PCB	Metals	VOC	PAH	Pest.	Glycol	TOC	Sieve
Vegetation	02-Sep-09	1-09-VG1	493943	7666744	VG				*						
	02-Sep-09	1-09-VG2	493962	7666763	VG				*						
	02-Sep-09	2-09-VG1	493305	7666612	VG				*						
	02-Sep-09	2-09-VG2	493300	7666591	VG				*						
	02-Sep-09	2-09-VG3	493300	7666591	VG				*						
	02-Sep-09	3-09-VG1	493544	7666775	VG				*						
	02-Sep-09	3-09-VG2	493587	7666769	VG				*						
Background Samples	30-Aug-09	BG-1	493780	7667081	SOIL				*						
	30-Aug-09	BG-2	493497	7667026	SOIL				*						
	30-Aug-09	BG-3	493497	7667026	SOIL				*						
	02-Sep-09	BG-VG1	493782	7667103	VG				*						

GROUNDWATER SAMPLING

	Sample Date	Station ID	Easting (UTM)	Northing (UTM)	Media	On hold	PHC	PCB	Metals	Hg	VOC	PAH	Pest.	Glycol
APEC 1 - Screening Plant / Boneyard	01-Sep-09	1-09-1M	493936	7666738	GW		*		*	*	*			
	01-Sep-09	1-09-2M	493954	7666752	GW		*		*	*	*			
	01-Sep-09	1-09-3M	493957	7666771	GW		*		*	*	*		*	
	-	1-09-4M	493938	7666751	GW		no GW sample - not enough water in well							
	01-Sep-09	1-09-5M	493935	7666767	GW		*		*	*	*	*		*
	01-Sep-09	FR-2	493935	7666767	GW							*		*
	01-Sep-09	1-09-6M	493948	7666759	GW		*	*	*	*	*			
	01-Sep-09	FR-3	493948	7666759	GW		*	*	*	*	*			
APEC 2 - Shoreline	02-Sep-09	2-09-MW4	493252	7666600	GW		*	*	*	*	*	*	*	*
APEC 3 - Fire Fighting Training Area	02-Sep-09	3-09-4M	493567	7666774	GW		*		*	*	*	*		
	02-Sep-09	3-09-5M	493599	7666746	GW		*		*	*	*	*		
	02-Sep-09	3-09-6M	493591	7666730	GW		*		*	*	*	*		
APEC 4 - Former F.H. Ross Tank Site	02-Sep-09	4-09-SW1	495219	7666151	SW		*		*	*	*	*		
	02-Sep-09	4-09-1M	495240	7666203	GW		*		*	*	*	*		
	02-Sep-09	4-09-2M	495243	7666189	GW		*		*	*	*	*		
	02-Sep-09	4-09-3M	495230	7666211	GW		*		*	*	*	*		
APEC 5 - Former AST	01-Sep-09	5-09-MW3	495352	7666408	GW		*		*	*	*	*		
APEC 6 - Building T-4	01-Sep-09	6-09-MW1	495305	7666327	GW		*		*	*	*	*		
	01-Sep-09	FR-1	495305	7666327	GW		*		*	*	*	*		

Sampling Depths
Cambridge Bay, Nunavut

SOIL

Station ID	Sample ID	Dup ID	Depth Top (m)	Depth Bottom (m)
1-09-1M	1-09-1M-1		0.8	1
1-09-2M	1-09-2M-1		0.5	1
1-09-3M	1-09-3M-1		0.5	1
1-09-4M	1-09-4M-1	1-09-DUP-1	0.5	1
1-09-5M	1-09-5M-1		0	0.5
1-09-6M	1-09-6M-1		0.5	1
2-09-TP1	2-09-TP1-1		0.05	0.4
2-09-TP1	2-09-TP1-2		0.4	0.5
2-09-TP2	2-09-TP2-1		0.2	0.3
2-09-TP2	2-09-TP2-2		0.3	0.5
2-09-TP3	2-09-TP3-1		0.1	0.7
2-09-TP3	2-09-TP3-2		0.1	0.7
2-09-TP4	2-09-TP4-1		0.15	0.55
2-09-TP4	2-09-TP4-2		0.55	0.9
2-09-TP5	2-09-TP5-1	GR-2	0.4	0.6
2-09-TP6	2-09-TP6-1		0.2	0.6
2-09-TP7	2-09-TP7-1		0.2	0.4
2-09-TP8	2-09-TP8-1		0.3	0.5
2-09-TP9	2-09-TP9-1		0.2	0.4
2-09-TP10	2-09-TP10-1		0.2	0.4
3-09-1	3-09-1-1	3-09-DUP-1	0	0.45
3-09-2	3-09-2-1		0	0.5
3-09-2	3-09-2-2		0.5	1.5
3-09-3	3-09-3-1		0	0.5
3-09-3	3-09-3-2		0.5	1.5
3-09-4M	3-09-4M-1		0	0.5
3-09-4M	3-09-4M-2		0.5	2
3-09-4M	3-09-4M-3		2	2.1
3-09-5M	3-09-5M-1		0	0.5
3-09-5M	3-09-5M-2		0.5	1
3-09-5M	3-09-5M-3		1	2.1
3-09-6M	3-09-6M-1		0	0.5
3-09-6M	3-09-6M-2		0.5	1
3-09-6M	3-09-6M-3		1	2
4A-09-1M	4A-09-1M-1		0.5	1
4A-09-2M	4A-09-2M-1		0.6	1
4A-09-3M	4A-09-3M-1		0.5	1
4A-09-4	4A-09-4-1		1.9	2
4A-09-5	4A-09-5-1		1.3	1.5
4A-09-6	4A-09-6-1		0.5	1
4A-09-6	4A-09-6-2		1	1.5
4A-09-7	4A-09-7-1		1.3	1.5
4A-09-8	4A-09-8-1		1	1.7
5-09-TP1	5-09-TP1-1		0.2	0.5
5-09-TP1	5-09-TP1-2		0.5	0.6
5-09-TP1	5-09-TP1-3		0.6	1.4
5-09-TP2	5-09-TP2-1		0.2	0.5
5-09-TP2	5-09-TP2-2		0.5	0.7
5-09-TP2	5-09-TP2-3		0.7	1.1
5-09-TP3	5-09-TP3-1		0.2	0.5
5-09-TP3	5-09-TP3-2		0.5	0.6
5-09-TP3	5-09-TP3-3		0.6	1.5
5-09-TP4	5-09-TP4-1		0.3	1.2
5-09-TP4	5-09-TP4-2		1.2	1.8
6-09-TP1	6-09-TP1-1		0	0.1
6-09-TP1	6-09-TP1-2		0.1	0.2
6-09-TP1	6-09-TP1-3		0.2	1.5
BG-1	BG-1		0.15	0.6
BG-2	BG-2	BG-3	0.3	0.5

Sampling Depths
Cambridge Bay, Nunavut

WATER

Station ID	Sample ID	Dup ID	Depth Top (m)	Depth Bottom (m)
1-09-1M	1-09-1M		1.476	2.237
1-09-2M	1-09-2M		1.308	2.006
1-09-3M	1-09-3M		1.117	1.967
1-09-4M	1-09-4M		0.688	1.86
1-09-5M	1-09-5M	FR-2	0.795	1.531
1-09-6M	1-09-6M	FR-3	1.115	1.835
2-09-MW4	2-09-MW4		1.056	1.506
3-09-4M	3-09-4M		1.864	2.812
3-09-5M	3-09-5M		1.946	2.641
3-09-6M	3-09-6M		1.954	2.506
4A-09-1M	4A-09-1M		1.152	2.24
4A-09-2M	4A-09-2M		0.726	2.129
4A-09-3M	4A-09-3M		0.911	2.035
4-09-SW1	4-09-SW1		0	0.3
5-09-MW3	5-09-MW3		1.63	2.06
6-09-MW1	6-09-MW1	FR-1	0.712	1.876

VEGETATION

Station ID	Sample ID	Dup ID	Depth Top (m)	Depth Bottom (m)
1-09-VG1	1-09-VG1		0	0
1-09-VG2	1-09-VG2		0	0
2-09-VG1	2-09-VG1		0	0
2-09-VG2	2-09-VG2	2-09-VG3	0	0
3-09-VG1	3-09-VG1		0	0
3-09-VG2	3-09-VG2		0	0

Table 1-1: APEC 1 Soil Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil (Residential)**	**CCME Soil (Commercial)**	**APEC 1**	**APEC 1**
Station ID			**1-09-2M**	**1-09-6M**
Field label			1-09-2M-1	1-09-6M-1
Duplicate ID				
Date			29/Aug/09	30/Aug/09
Lab report ID			A947822	A947822
Depth (m)			0.5 – 1	0.5 – 1
Acenaphthene	-	-	<0.01	<0.01
Acenaphthylene	-	-	<0.01	<0.01
Anthracene	-	-	<0.01	<0.01
Benzo(a)anthracene	1	10	<0.01	<0.01
Benzo(a)pyrene	0.7	0.7	<0.01	<0.01
Benzo(b+j)fluoranthene	-	-	<0.01	<0.01
Benzo(g,h,i)perylene	-	-	<0.02	<0.02
Benzo(k)fluoranthene	1	10	<0.01	<0.01
Chrysene	-	-	<0.01	<0.01
Dibenz(a,h)anthracene	1	10	<0.02	<0.02
Fluoranthene	-	-	<0.01	<0.01
Fluorene	-	-	<0.01	<0.01
High molecular weight PAHs	-	-	<0.02	<0.02
Indeno(1,2,3-cd)pyrene	1	10	<0.02	<0.02
Low molecular weight PAHs	-	-	<0.01	<0.01
2-Methylnaphthalene	-	-	<0.01	<0.01
Naphthalene	0.6	22	<0.01	<0.01
Phenanthrene	5	50	<0.01	<0.01
Pyrene	10	100	<0.01	<0.01
Total PAHs	-	-	<0.02	<0.02

Notes
All units in ug/g, unless otherwise noted.
" - " indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use (coarse soil).
Residential land use guidelines for coarse soil are shown for comparison purposes only.

Table 1-2: APEC 1 Soil Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil (Residential)**	**CCME Soil (Commercial)**	**APEC 1**	**APEC 1**	**APEC 1**	**APEC 1**	**APEC 1**	**Relative Percent Difference (%)**	**APEC 1**	**APEC 1**
Station ID			**1-09-1M**	**1-09-2M**	**1-09-3M**	**1-09-4M**	**1-09-4M**		**1-09-5M**	**1-09-6M**
Field label			1-09-1M-1	1-09-2M-1	1-09-3M-1	1-09-4M-1	1-09-DUP-1		1-09-5M-1	1-09-6M-1
Duplicate ID						1-09-DUP-1	1-09-4M-1			
Date			29/Aug/09	29/Aug/09	29/Aug/09	30/Aug/09	30/Aug/09		30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822	A947822	A947822		A947822	A947822
Depth (m)			0.8 – 1	0.5 – 1	0.5 – 1	0.5 – 1	0.5 – 1		0 – 0.5	0.5 – 1
Moisture content	-	-	7.4	9.1	9.5	11.0	11.0	0.0	8.6	10.0
Benzene	0.03	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	NC	<0.005	<0.005
Ethylbenzene	0.082	0.082	<0.01	<0.01	<0.01	<0.01	<0.01	NC	<0.01	<0.01
Toluene	0.37	0.37	<0.05	<0.03	<0.05	<0.05	<0.05	NC	<0.03	<0.03
m+p-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1
o-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1
Xylenes (total)	11	11	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1
F1 (C6-C10)	30*	320	-	<10	-	-	-	NC	<10	<10
F1 (C6-C10) minus BTEX	30*	320	<10	<10	<10	<10	<10	NC	<10	<10
F2 (C10-C16)	150*	260	<10	<10	<10	<10	<10	NC	<10	<10
F3 (C16-C34)	300*	1700	<10	<10	<10	<10	<10	NC	10	<10
F4 (C34-C50)	2800*	3300	<10	<10	<10	<10	<10	NC	<10	<10
Reached Baseline at C50	-	-	Yes	Yes	Yes	Yes	Yes	NC	Yes	Yes

Notes

All units in ug/g, unless otherwise noted.

" - " indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use (coarse soil).

" * " indicates that the guideline is CCME Canada-Wide Standards for Petroleum Hydrocarbons (CWS for PHC)

Residential land use guidelines for coarse soil are shown for comparison purposes only.

"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 1-3: APEC 1 Soil Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	Relative Percent Difference (%)	APEC 1	APEC 1
Station ID			**1-09-1M**	**1-09-2M**	**1-09-3M**	**1-09-4M**	**1-09-4M**		**1-09-5M**	**1-09-6M**
Field label			1-09-1M-1	1-09-2M-1	1-09-3M-1	1-09-4M-1	1-09-DUP-1		1-09-5M-1	1-09-6M-1
Duplicate ID						1-09-DUP-1	1-09-4M-1			
Date			29/Aug/09	29/Aug/09	29/Aug/09	30/Aug/09	30/Aug/09		30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822	A947822	A947822		A947822	A947822
Depth (m)			0.8 – 1	0.5 – 1	0.5 – 1	0.5 – 1	0.5 – 1		0 – 0.5	0.5 – 1
Benzene	0.03	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	NC	<0.005	<0.005
Bromodichloromethane	-	-	-	<0.05	-	-	-	NC	<0.05	<0.05
Bromoform	-	-	-	<0.05	-	-	-	NC	<0.05	<0.05
Bromomethane	-	-	-	<0.3	-	-	-	NC	<0.3	<0.3
Carbon tetrachloride	5	50	-	<0.03	-	-	-	NC	<0.03	<0.03
Chlorobenzene	1	10	-	<0.03	-	-	-	NC	<0.03	<0.03
Chlorodibromomethane	-	-	-	<0.05	-	-	-	NC	<0.05	<0.05
Chloroethane	-	-	-	<0.1	-	-	-	NC	<0.1	<0.1
Chloroform	5	50	-	<0.05	-	-	-	NC	<0.05	<0.05
Chloromethane	-	-	-	<0.1	-	-	-	NC	<0.1	<0.1
1,2-Dichlorobenzene	1	10	-	<0.03	-	-	-	NC	<0.03	<0.03
1,3-Dichlorobenzene	1	10	-	<0.03	-	-	-	NC	<0.03	<0.03
1,4-Dichlorobenzene	1	10	-	<0.03	-	-	-	NC	<0.03	<0.03
1,1-Dichloroethane	5	50	-	<0.03	-	-	-	NC	<0.03	<0.03
1,2-Dichloroethane	5	50	-	<0.03	-	-	-	NC	<0.03	<0.03
1,1-Dichloroethene	5	50	-	<0.03	-	-	-	NC	<0.03	<0.03
cis-1,2-Dichloroethene	-	-	-	<0.03	-	-	-	NC	<0.03	<0.03
trans-1,2-Dichloroethene	-	-	-	<0.03	-	-	-	NC	<0.03	<0.03
Dichloromethane	5	50	-	<0.1	-	-	-	NC	<0.1	<0.1
1,2-Dichloropropane	5	50	-	<0.03	-	-	-	NC	<0.03	<0.03
cis-1,3-Dichloropropene	-	-	-	<0.05	-	-	-	NC	<0.05	<0.05
trans-1,3-Dichloropropene	-	-	-	<0.05	-	-	-	NC	<0.05	<0.05
Ethylbenzene	0.082	0.082	<0.01	<0.01	<0.01	<0.01	<0.01	NC	<0.01	<0.01
Ethylene dibromide	-	-	-	<0.03	-	-	-	NC	<0.03	<0.03
Methyl-tert-butylether	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1
Styrene	5	50	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1
1,1,1,2-Tetrachloroethane	-	-	-	<0.03	-	-	-	NC	<0.03	<0.03
1,1,2,2-Tetrachloroethane	5	50	-	<0.03	-	-	-	NC	<0.03	<0.03
Tetrachloroethene	5	50	-	<0.03	-	-	-	NC	<0.03	<0.03
Toluene	0.37	0.37	<0.05	<0.03	<0.05	<0.05	<0.05	NC	<0.03	<0.03
1,1,1-Trichloroethane	5	50	-	<0.03	-	-	-	NC	<0.03	<0.03
1,1,2-Trichloroethane	5	50	-	<0.03	-	-	-	NC	<0.03	<0.03
Trichloroethene	5	50	-	<0.01	-	-	-	NC	<0.01	<0.01
Trichlorofluoromethane	-	-	-	<0.2	-	-	-	NC	<0.2	<0.2
Vinyl chloride	-	-	-	<0.08	-	-	-	NC	<0.08	<0.08
m+p-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1
o-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1
Xylenes (total)	11	11	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1

Notes

All units in ug/g, unless otherwise noted.

" - " indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use (coarse soil).

Residential land use guidelines for coarse soil are shown for comparison purposes only.

"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 1-4: Soil Analysis for Polychlorinated Biphenyls (PCB)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil Commercial Guidelines**	**APEC 1**	**APEC 1**
Station ID		**1-09-2M**	**1-09-6M**
Field Label		1-09-2M-1	1-09-6M-1
Duplicate ID			
Sampling Date		29/08/2009	29/08/2009
Lab Report ID		DP3378	DP3379
Depth (m)		0.5 - 1.0	0.5 - 1.0
Inorganics			
Moisture (%)	-	9.8	8.7
PCBs			
Aroclor 1262	-	<0.01	<0.01
Aroclor 1016	-	<0.01	<0.01
Aroclor 1221	-	<0.01	<0.01
Aroclor 1232	-	<0.01	<0.01
Aroclor 1242	-	<0.01	<0.01
Aroclor 1248	-	<0.01	<0.01
Aroclor 1254	-	<0.01	<0.01
Aroclor 1260	-	<0.01	<0.01
Aroclor 1268	-	<0.01	<0.01
Total PCB	-	<0.01	<0.01
Surrogate Recovery (%)			
2,4,5,6-Tetrachloro-m-xylene (%)	-	76	83
Decachlorobiphenyl (%)	-	79	80

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils

Table 1-5: APEC 1 Soil Analysis for Glycols
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 1
Station ID			1-09-2M
Field label			1-09-2M-1
Duplicate ID			
Date			29/Aug/09
Lab report ID			A947822
Depth (m)			0.5 – 1
Diethylene glycol	-	-	<10
Ethylene glycol	960	960	<10
Propylene glycol	-	-	<10
Tetraethylene glycol	-	-	<10
Triethylene glycol	-	-	<10

Notes
All units in ug/g, unless otherwise noted.
" - " indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use (coarse soil).
Residential land use guidelines for coarse soil are shown for comparison purposes only.

Table 1-6: APEC 1 Soil Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1
Station ID			**1-09-2M**	**1-09-3M**	**1-09-4M**	**1-09-5M**	**1-09-6M**
Field label			1-09-2M-1	1-09-3M-1	1-09-4M-1	1-09-5M-1	1-09-6M-1
Duplicate ID							
Date			29/Aug/09	29/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822	A947822	A947822
Depth (m)			0.5 – 1	0.5 – 1	0.5 – 1	0 – 0.5	0.5 – 1
pH	6 to 8	6 to 8	8.39	8.10	8.28	7.87	8.17
Aluminum	-	-	7100	7540	8490	3540	8170
Antimony	20	40	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	12	12	1.3	1.2	1.7	1.0	1.9
Barium	500	2000	37.3	35.2	40.3	21.7	38.6
Beryllium	4	8	0.5	0.5	0.5	0.2	0.4
Bismuth	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium	10	22	<0.05	<0.05	<0.05	<0.05	<0.05
Calcium	-	-	42600	31700	35600	44800	49100
Chromium	64	87	18	14	21	7	18
Cobalt	50	300	5.4	5.6	5.2	3.1	5.7
Copper	63	91	12.2	23.8	12.0	16.5	12.3
Iron	-	-	12500	10700	13700	7990	12500
Lead	140	260	5.1	4.9	4.9	3.5	5.1
Magnesium	-	-	26300	19500	23200	24300	29000
Manganese	-	-	231.0	192.0	229.0	187.0	247.0
Mercury	6.6	24	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum	10	40	0.5	0.2	0.4	0.3	0.3
Nickel	50	50	12.4	11.8	12.2	6.2	13.1
Potassium	-	-	3180	3990	3320	1520	3470
Selenium	1	2.9	<0.5	<0.5	<0.5	<0.5	<0.5
Silver	20	40	0.06	0.06	0.06	<0.05	0.06
Sodium	-	-	310	266	337	143	310
Strontium	-	-	27.7	23.5	25.1	20.2	26.5
Thallium	1	1	0.12	0.15	0.12	0.08	0.14
Tin	50	300	0.3	0.3	0.4	0.1	0.3
Titanium	-	-	415	219	562	157	433
Vanadium	130	130	28	20	33	15	28
Zinc	200	360	21	13	23	7	19
Zirconium	-	-	5.7	5.9	5.8	2.1	5.6

Notes
All units in ug/g, unless otherwise noted.
" - " indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use (coarse soil).
Residential land use guidelines for coarse soil are shown for comparison purposes only.

Table 1-7: APEC 1 Grain Size Analysis in Soil
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil Commercial**	**APEC 1**
Station ID		**1-09-6M**
Field label		1-09-6M-1
Duplicate ID		
Date		30/Aug/09
Lab report ID		A947822
Depth (m)		0.5 – 1
<200 mesh (>.075 mm)	-	36.4
>200 mesh (<.075 mm)	-	63.6

Notes
All units in ug/g, unless otherwise noted.
" - " indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use (coarse soil).
Residential land use guidelines for coarse soil are shown for comparison purposes only.

Table 1-8: APEC 1 Groundwater Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Marine)	APEC 1	APEC 1	APEC 1	Duplicate Evaluation	
Station ID		1-09-4M	1-09-5M	1-09-5M	Reportable Detection Level (RDL)	Relative Percent Difference (%)
Field label		1-09-4M	1-09-5M	FR-2		
Duplicate ID			FR-2	1-09-5M		
Date		1/Sep/09	1/Sep/09	1/Sep/09		
Lab report ID		A948731	A948731	A948731		
Acenaphthene	60	<0.10	<0.10	<0.10	0.1	NC
Acenaphthylene	-	<0.10	<0.10	<0.10	0.1	NC
Acridine	0.5	<0.20	<0.20	<0.20	0.2	NC
Anthracene	1	<0.010	<0.010	0.029	0.010	NC
Benzo(a)anthracene	1	<0.0085	<0.0085	<0.0085	0.085	NC
Benzo(a)pyrene	0.1	<0.0075	<0.0075	<0.0075	0.0075	NC
Benzo(b+j)fluoranthene	-	<0.0085	<0.0085	<0.0085	0.0085	NC
Benzo(e)pyrene	-	<0.050	<0.050	<0.050	0.05	NC
Benzo(g,h,i)perylene	-	<0.0085	<0.0085	<0.0085	0.0085	NC
Benzo(k)fluoranthene	-	<0.0085	<0.0085	<0.0085	0.0085	NC
Chrysene	1	<0.0085	<0.0085	<0.0085	0.0085	NC
Dibenz(a,h)anthracene	-	<0.0075	<0.0075	<0.0075	0.0075	NC
Fluoranthene	2	<0.040	<0.040	<0.040	0.04	NC
Fluorene	120	<0.050	<0.050	<0.050	0.05	NC
Indeno(1,2,3-cd)pyrene	-	<0.0085	<0.0085	<0.0085	0.0085	NC
2-Methylnaphthalene	-	<0.10	<0.10	<0.10	0.1	NC
Naphthalene	10	<0.10	<0.10	<0.10	0.1	NC
Perylene	-	<0.050	<0.050	<0.050	0.05	NC
Phenanthrene	3	<0.050	<0.050	<0.050	0.05	NC
Pyrene	0.2	<0.020	<0.020	<0.020	0.02	NC
Quinoline	34	<0.20	<0.20	<0.20	0.2	NC

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 1-9: APEC 1 Groundwater Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Marine)	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	Duplicate Evaluation	
Station ID		**1-09-1M**	**1-09-2M**	**1-09-3M**	**1-09-4M**	**1-09-5M**	**1-09-6M**	**1-09-6M**	**Reportable Detection Level (RDL)**	**Relative Percent Difference (%)**
Field label		1-09-1M	1-09-2M	1-09-3M	1-09-4M	1-09-5M	1-09-6M	FR-3		
Duplicate ID							FR-3	1-09-6M		
Date		1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09		
Lab report ID		A948731	A948731	A948731	A948731	A948731	A948731	A948731		
Benzene	1000	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	NC
Ethylbenzene	2500	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	NC
Toluene	3300	1.0	1.8	1.9	**2.3**	1.0	0.9	1.7	0.4	NC
m+p-Xylene	-	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	NC
o-Xylene	-	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	NC
Xylenes (total)	-	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	NC
F1 (C6-C10) minus BTEX	-	<100	<100	<100	<100	<100	<100	<100	100	NC
F2 (C10-C16)	-	<100	<100	<100	<100	<100	<100	<100	100	NC
F3 (C16-C34)	-	<100	<100	<100	<100	<100	<100	<100	100	NC
F4 (C34-C50)	-	<100	<100	<100	<100	<100	<100	<100	100	NC
Reached Baseline at C50	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NC	NC

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 1-10: APEC 1 Groundwater Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Marine)	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	Duplicate Evaluation	
Station ID		1-09-1M	1-09-2M	1-09-3M	1-09-4M	1-09-5M	1-09-6M	1-09-6M	Reportable Detection Level (RDL)	Relative Percent Difference (%)
Field label		1-09-1M	1-09-2M	1-09-3M	1-09-4M	1-09-5M	1-09-6M	FR-3		
Duplicate ID							FR-3	1-09-6M		
Date		1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09		
Lab report ID		A948731	A948731	A948731	A948731	A948731	A948731	A948731		
Benzene	1000	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	NC
Bromodichloromethane	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Bromoform	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Bromomethane	-	<2	<2	<2	<2	<2	<2	<2	2	NC
Carbon tetrachloride	130	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Chlorobenzene	120	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Chlorodibromomethane	-	<1	<1	<1	<1	<1	<1	<1	1	NC
Chloroethane	-	<1	<1	<1	<1	<1	<1	<1	1	NC
Chloroform	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Chloromethane	-	<2	<2	<2	51	<2	<2	<2	2	NC
1,2-Dichlorobenzene	420	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
1,3-Dichlorobenzene	1500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
1,4-Dichlorobenzene	260	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
1,1-Dichloroethane	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
1,2-Dichloroethane	1000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
1,1-Dichloroethene	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
cis-1,2-Dichloroethene	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
trans-1,2-Dichloroethene	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Dichloromethane	980	<2	<2	<2	<2	<2	<2	<2	2	NC
1,2-Dichloropropane	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
cis-1,3-Dichloropropene	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
trans-1,3-Dichloropropene	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Ethylbenzene	2500	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	NC
Ethylene dibromide	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Methyl-tert-butylether	4400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Styrene	720	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
1,1,1,2-Tetrachloroethane	-	<2	<2	<2	<2	<2	<2	<2	2	NC
1,1,2,2-Tetrachloroethane	-	<2	<2	<2	<2	<2	<2	<2	2	NC
Tetrachloroethene	1100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Toluene	3300	1.0	1.8	1.9	2.3	1.0	0.9	1.7	0.4	NC
Total Trihalomethanes	-	<2	<2	<2	<2	<2	<2	<2	2	NC
1,2,3-Trichlorobenzene	80	<1	<1	<1	<1	<1	<1	<1	1	NC
1,2,4-Trichlorobenzene	54	<1	<1	<1	<1	<1	<1	<1	1	NC
1,3,5-Trichlorobenzene	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
1,1,1-Trichloroethane	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
1,1,2-Trichloroethane	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Trichloroethene	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Trichlorofluoromethane	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
Vinyl chloride	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	NC
m+p-Xylene	-	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	NC
o-Xylene	-	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	NC
Xylenes (total)	-	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.8	NC

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 1-11: APEC 1 Groundwater Analysis for Polychlorinated Biphenyls (PCBs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Marine)	APEC 1	APEC 1	Duplicate Evaluation	
Station ID		1-09-6M	1-09-6M	Reportable Detection Level (RDL)	Relative Percent Difference (%)
Field label		1-09-6M	FR-3		
Duplicate ID		FR-3	1-09-6M		
Date		1/Sep/09	1/Sep/09		
Lab report ID		A948731	A948731		
Aroclor 1016	-	<0.050	<0.050	0.05	NC
Aroclor 1221	-	<0.050	<0.050	0.05	NC
Aroclor 1232	-	<0.050	<0.050	0.05	NC
Aroclor 1242	-	<0.050	<0.050	0.05	NC
Aroclor 1248	-	<0.050	<0.050	0.05	NC
Aroclor 1254	-	<0.050	<0.050	0.05	NC
Aroclor 1260	-	<0.050	<0.050	0.05	NC
Aroclor 1262	-	<0.050	<0.050	0.05	NC
Aroclor 1268	-	<0.050	<0.050	0.05	NC

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 1-12: APEC 1 Groundwater Analysis for Glycols
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Marine)	APEC 1	APEC 1	Duplicate Evaluation	
Station ID		**1-09-5M**	**1-09-5M**	**Reportable Detection Level (RDL)**	**Relative Percent Difference (%)**
Field label		1-09-5M	FR-2		
Duplicate ID		FR-2	1-09-5M		
Date		1/Sep/09	1/Sep/09		
Lab report ID		A948731	A948731		
Diethylene glycol	-	<10000	<10000	10000	NC
Ethylene glycol	1920000	<10000	<10000	10000	NC
Propylene glycol	5000000	<10000	<10000	10000	NC
Tetraethylene glycol	-	<10000	<10000	10000	NC
Triethylene glycol	-	<10000	<10000	10000	NC

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 1-13: APEC 1 Groundwater Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Marine)	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	APEC 1	Duplicate Evaluation	
Station ID		1-09-1M	1-09-2M	1-09-3M	1-09-4M	1-09-5M	1-09-6M	1-09-6M	Reportable Detection Level (RDL)	Relative Percent Difference (%)
Field label		1-09-1M	1-09-2M	1-09-3M	1-09-4M	1-09-5M	1-09-6M	FR-3		
Duplicate ID							FR-3	1-09-6M		
Date		1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09	1/Sep/09		
Lab report ID		A948731	A948731	A948731	A948731	A948731	A948731	A948731		
Hardness (mg/L)	-	520	750	2200	970	2400	1200	820	-	NC
Aluminum	-	900	240	70	330	270	<10	240	10	NC
Antimony	200	<2	<2	<2	<2	<2	<2	<2	2	NC
Arsenic	125	<2	<2	<2	<2	<2	<2	<2	2	NC
Barium	5000	40	50	20	30	110	50	50	10	0
Beryllium	1000	<10	<10	<10	<10	<10	<10	<10	10	NC
Boron	50000	150	90	860	280	210	70	110	20	NC
Cadmium	1	<0.05	<0.05	<0.05	<0.05	0.11	0.20	<0.05	0.05	NC
Calcium	-	89000	130000	330000	180000	410000	180000	140000	300	25
Chromium	150	<10	<10	<10	<10	<10	10	<10	10	NC
Cobalt	40	<3	<3	<3	<3	<3	<3	<3	3	NC
Copper	20	9	8	3	5	7	12	18	2	40
Iron	-	1400	460	500	510	450	310	450	60	36.84
Lead	20	<2	<2	<2	<2	<2	<2	<2	2	NC
Magnesium	-	72000	110000	320000	120000	330000	180000	120000	200	40
Manganese	-	56	25	20	100	35	21	28	4	28.57
Mercury	1	0.003	0.005	0.004	0.003	0.003	0.004	0.006	0.001	NC
Molybdenum	10000	3	2	<2	3	<2	9	2	2	NC
Nickel	83	<5	5	7	<5	6	<5	<5	5	NC
Potassium	-	17000	21000	78000	24000	38000	34000	22000	300	42.86
Selenium	540	<2	<2	<2	<2	<2	<2	<2	2	NC
Silver	15	<1	<1	<1	<1	<1	<1	<1	1	NC
Sodium	-	190000	180000	670000	160000	700000	390000	220000	500	55.74
Strontium	-	160	140	1100	320	530	220	150	20	37.84
Thallium	3	<2	<2	<2	<2	<2	<2	<2	2	NC
Tin	-	<10	<10	<10	<10	<10	<10	<10	10	NC
Titanium	1000	50	20	<10	30	<10	<10	<10	10	NC
Uranium	1000	7	12	33	14	29	26	12	1	73.68
Vanadium	-	<10	10	<10	<10	<10	<10	<10	10	NC
Zinc	100	<30	<30	<30	<30	<30	<30	<30	30	NC

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 1-14: APEC 1 Metals Analysis in Vegetation
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	MOE Vegetation Guidelines (ppm)	APEC 1	APEC 1	Background
Station ID		1-09-VG1	1-09-VG2	BG-VG-1
Field label		1-09-VG1	1-09-VG2	BG-VG-1
Duplicate ID				
Date		2/Sep/09	2/Sep/09	2/Sep/09
Lab report ID		A948579	A948579	A948579
Antimony	0.3	<1	<1	<1
Arsenic	0.5	<1	<1	<1
Barium	-	<10	<10	<10
Beryllium	-	<0.4	<0.4	<0.4
Cadmium	1	<0.1	<0.1	0.2
Chromium	8	<1	2	1
Chromium (VI)	-	<0.15	<0.15	
Cobalt	2	<1	<1	1
Copper	20	<5	<5	7
Lead	30	<1	<1	<1
Mercury	-	<0.05	<0.05	<0.05
Molybdenum	1.5	<0.4	2.6	0.8
Nickel	5	1	1	1
Selenium	0.5	<0.5	<0.5	<0.5
Silver	50	<1	<1	<1
Thallium	-	<0.3	<0.3	<0.3
Tin	-	<1	<1	<1
Uranium	-	<1	<1	<1
Vanadium	5	<1	1	2
Zinc	250	<10	24	51

Notes
All units in ug/g.
"-" indicates that analyses were not performed.
Red cells indicate parameter exceeds the Ontario Ministry of the Environment Vegetation guidelines (2008).

Table 2-1: APEC 2 Soil Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil (Residential)**	**CCME Soil (Commercial)**	**APEC 2**	**APEC 2**	**APEC 2**
Station ID			**2-09-TP2**	**2-09-TP3**	**2-09-TP9**
Field label			2-09-TP2-2	2-09-TP3-1	2-09-TP9-1
Duplicate ID					
Date			29/Aug/09	29/Aug/09	29/Aug/09
Lab report ID			A947822	A947822	A947822
Depth (m)			0.3 – 0.5	0.1 – 0.7	0.2 – 0.4
Acenaphthene	-	-	<0.01	<0.01	<0.01
Acenaphthylene	-	-	<0.01	<0.01	<0.01
Anthracene	-	-	<0.01	<0.01	<0.01
Benzo(a)anthracene	1	10	<0.01	<0.01	<0.01
Benzo(a)pyrene	0.7	0.7	<0.01	<0.01	<0.01
Benzo(b+j)fluoranthene	-	-	<0.01	<0.01	<0.01
Benzo(g,h,i)perylene	-	-	<0.02	<0.02	<0.02
Benzo(k)fluoranthene	1	10	<0.01	<0.01	<0.01
Chrysene	-	-	<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	1	10	<0.02	<0.02	<0.02
Fluoranthene	-	-	<0.01	<0.01	<0.01
Fluorene	-	-	<0.01	<0.01	<0.01
High molecular weight PAHs	-	-	<0.02	<0.02	<0.02
Indeno(1,2,3-cd)pyrene	1	10	<0.02	<0.02	<0.02
Low molecular weight PAHs	-	-	<0.01	<0.01	0.02
2-Methylnaphthalene	-	-	<0.01	<0.01	0.02
Naphthalene	0.6	22	<0.01	<0.01	<0.01
Phenanthrene	5	50	<0.01	<0.01	<0.01
Pyrene	10	100	<0.01	<0.01	<0.01
Total PAHs	-	-	<0.02	<0.02	<0.02

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse soils.
Residential land use guidelines for coarse soil are shown for comparison purposes only.

Table 2-2: APEC 2 Soil Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential\)	CCME Soil (Commercial)	APEC 2	APEC 2	APEC 2	APEC 2	APEC 2	APEC 2	Relative Percent Difference (%)	APEC 2	APEC 2	APEC 2	APEC 2	APEC 2
Station ID			**2-09-TP1**	**2-09-TP2**	**2-09-TP3**	**2-09-TP4**	**2-09-TP5**	**2-09-TP5**		**2-09-TP6**	**2-09-TP7**	**2-09-TP8**	**2-09-TP9**	**2-09-TP10**
Field label			2-09-TP1-2	2-09-TP2-2	2-09-TP3-1	2-09-TP4	2-09-TP5-1	GR2		2-09-TP6-1	2-09-TP7-1	2-09-TP8-1	2-09-TP9-1	2-09-TP10-1
Duplicate ID							GR2	2-09-TP5-1						
Date			29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09		29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09
Lab report ID			A947822	A947822	A947822	A947822	A947822	A947822		A947822	A947822	A947822	A947822	A947822
Depth (m)			0.4 – 0.5	0.3 – 0.5	0.1 – 0.7		0.4 – 0.6	0.4 – 0.6		0.2 – 0.6	0.2 – 0.4	0.3 – 0.5	0.2 – 0.4	0.2 – 0.4
Moisture content	-	-	15.0	24.0	16.0	22.0	8.9	2.4	28.8	17.0	11.0	9.3	32.0	27.0
Benzene	0.03	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NC	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.082	0.082	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NC	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	0.37	0.37	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	<0.05	<0.05	<0.03
m+p-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1
o-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1
Xylenes (total)	11	11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1
F1 (C6-C10)	30*	320	<10	<10	<10	<10	<10	<10	NC	<10	<10	-	-	<10
F1 (C6-C10) minus BTEX	30*	320	<10	<10	<10	<10	<10	<10	NC	<10	<10	<10	<10	<10
F2 (C10-C16)	150*	260	<10	<10	<10	<10	<10	<10	NC	<10	<10	13	31	13
F3 (C16-C34)	300*	1700	50	19	<10	<10	66	74	2.9	65	23	120	52	39
F4 (C34-C50)	2800*	3300	<10	<10	<10	<10	<10	<10	NC	<10	<10	18	<10	<10
Reached Baseline at C50	-	-	Yes	Yes	Yes	Yes	Yes	Yes	NC	Yes	Yes	Yes	Yes	Yes

Notes

All units in ug/g, unless otherwise noted.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse soils.

" * " indicates that the guideline is CCME Canada-Wide Standards for Petroleum Hydrocarbons (CWS for PHC)

Residential land use guidelines for coarse soil are shown for comparison purposes only.

NC indicates that the relative percent difference (%) was not calculated for this parameter

Table 2-3: APEC 2 Soil Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 2	APEC 2	APEC 2	APEC 2	APEC 2	APEC 2	Relative Percent Difference (%)	APEC 2	APEC 2	APEC 2	APEC 2	APEC 2
Station ID			2-09-TP1	2-09-TP2	2-09-TP3	2-09-TP4	2-09-TP5	2-09-TP5		2-09-TP6	2-09-TP7	2-09-TP8	2-09-TP9	2-09-TP10
Field label			2-09-TP1-2	2-09-TP2-2	2-09-TP3-1	2-09-TP4	2-09-TP5-1	GR2		2-09-TP6-1	2-09-TP7-1	2-09-TP8-1	2-09-TP9-1	2-09-TP10-1
Duplicate ID							GR2	2-09-TP5-1						
Date			29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09		29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09
Lab report ID			A947822	A947822	A947822	A947822	A947822	A947822		A947822	A947822	A947822	A947822	A947822
Depth (m)			0.4 – 0.5	0.3 – 0.5	0.1 – 0.7		0.4 – 0.6	0.4 – 0.6		0.2 – 0.6	0.2 – 0.4	0.3 – 0.5	0.2 – 0.4	0.2 – 0.4
Benzene	0.03	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NC	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NC	<0.05	<0.05	-	-	<0.05
Bromoform	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NC	<0.05	<0.05	-	-	<0.05
Bromomethane	-	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	NC	<0.3	<0.3	-	-	<0.3
Carbon tetrachloride	5	50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
Chlorobenzene	1	10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
Chlorodibromomethane	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NC	<0.05	<0.05	-	-	<0.05
Chloroethane	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	-	-	<0.1
Chloroform	5	50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NC	<0.05	<0.05	-	-	<0.05
Chloromethane	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	-	-	<0.1
1,2-Dichlorobenzene	1	10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
1,3-Dichlorobenzene	1	10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
1,4-Dichlorobenzene	1	10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
1,1-Dichloroethane	5	50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
1,2-Dichloroethane	5	50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
1,1-Dichloroethene	5	50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
cis-1,2-Dichloroethene	-	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
trans-1,2-Dichloroethene	-	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
Dichloromethane	5	50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	-	-	<0.1
1,2-Dichloropropane	5	50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
cis-1,3-Dichloropropene	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NC	<0.05	<0.05	-	-	<0.05
trans-1,3-Dichloropropene	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NC	<0.05	<0.05	-	-	<0.05
Ethylbenzene	0.082	0.082	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NC	<0.01	<0.01	<0.01	<0.01	<0.01
Ethylene dibromide	-	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
Methyl-tert-butylether	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1
Styrene	5	50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-Tetrachloroethane	-	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
1,1,2,2-Tetrachloroethane	5	50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
Tetrachloroethene	5	50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
Toluene	0.37	0.37	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	<0.05	<0.05	<0.03
1,1,1-Trichloroethane	5	50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
1,1,2-Trichloroethane	5	50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NC	<0.03	<0.03	-	-	<0.03
Trichloroethene	5	50	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NC	<0.01	<0.01	-	-	<0.01
Trichlorofluoromethane	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NC	<0.2	<0.2	-	-	<0.2
Vinyl chloride	-	-	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	NC	<0.08	<0.08	-	-	<0.08
m+p-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1
o-Xylene	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1
Xylenes (total)	11	11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse soils.
Residential land use guidelines for coarse soil are shown for comparison purposes only.

Table 2-4: APEC 2 Soil Analysis for Polychlorinated Biphenyls (PCBs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil Commercial Guidelines**	**APEC 2**	**APEC 2**	**APEC 2**	**APEC 2**
Station ID		**2-09-TP1**	**2-09-TP2**	**2-09-TP3**	**2-09-TP9**
Field Label		2-09-TP1-1	2-09-TP2-2	2-09-TP3-1	2-09-TP9-1
Duplicate ID					
Sampling Date		29/08/2009	29/08/2009	29/08/2009	29/08/2009
Lab Report ID		DP3380	DP3381	DP3382	DP3384
Depth (m)		0.05 - 0.4	0.3 - 0.5	0.1 - 0.7	0.2 - 0.4
Inorganics					
Moisture (%)	-	11	22	5.9	14
PCBs					
Aroclor 1262	-	<0.01	<0.01	<0.01	<0.01
Aroclor 1016	-	<0.01	<0.01	<0.01	<0.01
Aroclor 1221	-	<0.01	<0.01	<0.01	<0.01
Aroclor 1232	-	<0.01	<0.01	<0.01	<0.01
Aroclor 1242	-	<0.01	<0.01	<0.01	<0.01
Aroclor 1248	-	<0.01	<0.01	<0.01	<0.01
Aroclor 1254	-	<0.01	<0.01	<0.01	<0.01
Aroclor 1260	-	<0.01	<0.01	<0.01	<0.01
Aroclor 1268	-	<0.01	<0.01	<0.01	<0.01
Total PCB	-	<0.01	<0.01	<0.01	<0.01
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene (%)	-	77	89	70	68
Decachlorobiphenyl (%)	-	74	75	75	69

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils

Table 2-5: APEC 2 Soil Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 2	APEC 2	APEC 2	APEC 2	APEC 2	APEC 2	Relative Percent Difference (%)	APEC 2	APEC 2	APEC 2	APEC 2	APEC 2
Station ID			2-09-TP1	2-09-TP2	2-09-TP3	2-09-TP4	2-09-TP5	2-09-TP5		2-09-TP6	2-09-TP7	2-09-TP8	2-09-TP9	2-09-TP10
Field label			2-09-TP1-2	2-09-TP2-2	2-09-TP3-1	2-09-TP4	2-09-TP5-1	GR2		2-09-TP6-1	2-09-TP7-1	2-09-TP8-1	2-09-TP9-1	2-09-TP10-1
Duplicate ID							GR2	2-09-TP5-1						
Date			29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09		29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09
Lab report ID			A947822	A947822	A947822	A947822	A947822	A947822		A947822	A947822	A947822	A947822	A947822
Depth (m)			0.4 – 0.5	0.3 – 0.5	0.1 – 0.7		0.4 – 0.6	0.4 – 0.6		0.2 – 0.6	0.2 – 0.4	0.3 – 0.5	0.2 – 0.4	0.2 – 0.4
pH	6 to 8	6 to 8	7.30	7.75	7.90	8.49	8.02	7.90	0.8	8.09	8.12	8.14	8.32	8.10
Aluminum	-	-	3560	8920	4800	2950	4050	4980	10.3	3860	3850	2860	3180	3900
Antimony	20	20	0.2	0.2	<0.1	<0.1	0.1	0.1	0.0	0.6	0.2	0.2	0.1	0.2
Arsenic	12	12	1.8	8.5	1.8	1.6	3.3	2.0	24.5	40.6	6.5	5.2	8.7	9.1
Barium	500	500	41.4	60.3	27.1	24.0	20.2	24.5	9.6	32.3	19.9	41.5	17.1	25.7
Beryllium	4	4	0.3	0.6	0.3	0.3	0.5	0.3	25.0	0.7	0.6	0.4	0.7	0.7
Bismuth	-	-	<0.1	<0.1	<0.1	<0.1	0.2	0.1	33.3	0.1	0.1	<0.1	0.1	0.1
Cadmium	10	10	0.07	0.11	<0.05	<0.05	1.45	1.71	8.2	0.06	<0.05	<0.05	<0.05	<0.05
Calcium	-	-	67900	54200	54700	85900	81100	72800	5.4	40800	31600	53800	111000	72900
Chromium	64	64	11	27	12	8	20	22	4.8	16	15	13	13	17
Cobalt	50	50	3.3	5.1	4.3	3.6	6.1	5.0	9.9	10.1	13.7	12.1	6.0	16.0
Copper	63	91	28.7	12.5	12.0	8.5	94.5	102.0	3.8	24.5	20.0	18.2	11.3	22.4
Iron	-	-	9650	16300	11100	8520	16200	11900	15.3	51000	18200	22200	22200	24300
Lead	140	140	4.9	6.2	3.6	3.6	21.4	20.8	1.4	24.5	21.2	22.9	15.2	25.6
Magnesium	-	-	35400	33400	32500	53300	48000	40800	8.1	22600	17000	29600	63200	40800
Manganese	-	-	265.0	224.0	292.0	259.0	561.0	495.0	6.3	433.0	333.0	490.0	807.0	639.0
Mercury	6.6	6.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NC	<0.05	<0.05	<0.05	<0.05	<0.05
Molybdenum	10	10	0.8	3.4	0.4	0.3	1.3	0.9	18.2	7.4	4.9	3.7	2.7	4.7
Nickel	50	50	14.4	15.5	10.4	8.5	32.1	29.7	3.9	25.5	20.9	23.4	13.0	24.0
Potassium	-	-	1500	3590	1400	1890	1680	1660	0.6	2570	2590	2080	2000	2480
Selenium	1	1	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	NC	<0.5	<0.5	<0.5	<0.5	<0.5
Silver	20	20	0.05	0.08	<0.05	<0.05	0.09	0.07	12.5	<0.05	0.09	0.11	0.05	0.07
Sodium	-	-	329	585	215	333	231	216	3.4	1220	712	476	1300	1730
Strontium	-	-	27.2	35.6	25.1	29.8	75.7	79.4	2.4	58.0	35.1	31.1	57.2	54.6
Thallium	1	1	0.13	0.14	0.07	0.08	0.09	0.10	5.3	0.09	0.09	0.21	0.05	0.10
Tin	50	50	0.2	0.4	0.2	0.1	0.4	0.5	11.1	0.4	0.5	0.4	0.3	0.5
Titanium	-	-	156	604	285	135	110	147	14.4	75	84	61	80	110
Vanadium	130	130	18	43	25	12	22	20	4.8	69	22	23	30	34
Zinc	200	200	15	32	16	10	110	97	6.3	24	16	12	10	18
Zirconium	-	-	4.4	6.3	2.5	2.0	4.5	3.1	18.4	4.3	6.1	5.7	6.2	4.9

Notes
All units in ug/g, unless otherwise noted.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse soils.
Residential land use guidelines for coarse soil are shown for comparison purposes only.
"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 2-6: APEC 2 Groundwater Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**BC CSR (Marine)**	**APEC 2**
Station ID		**2-09-MW4**
Field label		2-09-MW4
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948731
Acenaphthene	60	<0.10
Acenaphthylene	-	<0.10
Acridine	0.5	<0.20
Anthracene	1	<0.010
Benzo(a)anthracene	1	<0.0085
Benzo(a)pyrene	0.1	<0.0075
Benzo(b+j)fluoranthene	-	<0.0085
Benzo(e)pyrene	-	<0.050
Benzo(g,h,i)perylene	-	<0.0085
Benzo(k)fluoranthene	-	<0.0085
Chrysene	1	<0.0085
Dibenz(a,h)anthracene	-	<0.0075
Fluoranthene	2	<0.040
Fluorene	120	<0.050
Indeno(1,2,3-cd)pyrene	-	<0.0085
2-Methylnaphthalene	-	<0.10
Naphthalene	10	<0.10
Perylene	-	<0.050
Phenanthrene	3	<0.050
Pyrene	0.2	<0.020
Quinoline	34	<0.20

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 2-7: APEC 2 Groundwater Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**BC CSR (Marine)**	**APEC 2**
Station ID		**2-09-MW4**
Field label		2-09-MW4
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948731
Benzene	1000	<0.4
Ethylbenzene	2500	<0.4
Toluene	3300	<0.4
m+p-Xylene	-	<0.8
o-Xylene	-	<0.4
Xylenes (total)	-	<0.8
F1 (C6-C10) minus BTEX	-	<100
F2 (C10-C16)	-	<100
F3 (C16-C34)	-	<100
F4 (C34-C50)	-	<100
Reached Baseline at C50	-	Yes

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 2-8: APEC 2 Groundwater Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**BC CSR (Marine)**	**APEC 2**
Station ID		**2-09-MW4**
Field label		2-09-MW4
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948731
Benzene	1000	<0.4
Bromodichloromethane	-	<0.5
Bromoform	-	<0.5
Bromomethane	-	<2
Carbon tetrachloride	130	<0.5
Chlorobenzene	120	<0.5
Chlorodibromomethane	-	<1
Chloroethane	-	<1
Chloroform	20	<0.5
Chloromethane	-	<2
1,2-Dichlorobenzene	420	<0.5
1,3-Dichlorobenzene	1500	<0.5
1,4-Dichlorobenzene	260	<0.5
1,1-Dichloroethane	-	<0.5
1,2-Dichloroethane	1000	<0.5
1,1-Dichloroethene	-	<0.5
cis-1,2-Dichloroethene	-	<0.5
trans-1,2-Dichloroethene	-	<0.5
Dichloromethane	980	<2
1,2-Dichloropropane	-	<0.5
cis-1,3-Dichloropropene	-	<0.5
trans-1,3-Dichloropropene	-	<0.5
Ethylbenzene	2500	<0.4
Ethylene dibromide	-	<0.5
Methyl-tert-butylether	4400	<0.5
Styrene	720	<0.5
1,1,1,2-Tetrachloroethane	-	<2
1,1,2,2-Tetrachloroethane	-	<2
Trichlorofluoromethane	-	<0.5
Vinyl chloride	-	<0.5
m+p-Xylene	-	<0.8
o-Xylene	-	<0.4
Xylenes (total)	-	<0.8

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 2-9: APEC 2 Groundwater Analysis for Polychlorinated Biphenyls (PCBs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**BC CSR (Marine)**	**APEC 2**
Station ID		**2-09-MW4**
Field label		2-09-MW4
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948731
Aroclor 1016	-	<0.050
Aroclor 1221	-	<0.050
Aroclor 1232	-	<0.050
Aroclor 1242	-	<0.050
Aroclor 1248	-	<0.050
Aroclor 1254	-	<0.050
Aroclor 1260	-	<0.050
Aroclor 1262	-	<0.050
Aroclor 1268	-	<0.050

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 2-10: APEC 2 Groundwater Analysis for Glycols
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**BC CSR (Marine)**	**APEC 2**
Station ID		**2-09-MW4**
Field label		2-09-MW4
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948579
Diethylene glycol	-	<10000
Ethylene glycol	1920000	<10000
Propylene glycol	5000000	<10000
Tetraethylene glycol	-	<10000
Triethylene glycol	-	<10000

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 2-11: APEC 2 Groundwater Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**BC CSR (Marine)**	**APEC 2**
Station ID		**2-09-MW4**
Field label		2-09-MW4
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948731
Hardness (mg/L)	-	1900
Aluminum	-	<10
Antimony	200	<2
Arsenic	125	<2
Barium	5000	30
Beryllium	1000	<10
Boron	50000	1200
Cadmium	1	<0.05
Calcium	-	240000
Chromium	150	<10
Cobalt	40	11
Copper	20	4
Iron	-	420
Lead	20	<2
Magnesium	-	320000
Manganese	-	160
Mercury	1	0.002
Molybdenum	10000	4
Nickel	83	33
Potassium	-	83000
Selenium	540	<2
Silver	15	<1
Sodium	-	1000000
Strontium	-	1200
Thallium	3	<2
Tin	-	<10
Titanium	1000	<10
Uranium	1000	8

Notes

All units in ug/L unless otherwise indicated

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 2-12: APEC 2 Vegetation Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	MOE Vegetation Guidelines (ppm)	APEC 2	APEC 2	APEC 2	Relative Percent Difference (%)	Background
Station ID		2-09-VG1	2-09-VG2	2-09-VG2		BG-VG-1
Field label		2-09-VG1	2-09-VG2	2-09-VG3		BG-VG-1
Duplicate ID			2-09-VG3	2-09-VG2		
Date		2/Sep/09	2/Sep/09	2/Sep/09		2/Sep/09
Lab report ID		A948579	A948579	A948579		A948579
Antimony	0.3	<1	<1	<1	NC	<1
Arsenic	0.5	<1	<1	<1	NC	<1
Barium	-	<10	<10	10	NC	<10
Beryllium	-	<0.4	<0.4	<0.4	NC	<0.4
Cadmium	1	0.9	0.3	0.4	7.1	0.2
Chromium	8	<1	1	2	16.7	1
Chromium (VI)	-	<0.15	<0.15	<0.15	NC	<0.15
Cobalt	2	<1	<1	<1	NC	1
Copper	20	6	<5	<5	NC	7
Lead	30	<1	<1	<1	NC	<1
Mercury	-	<0.05	<0.05	<0.05	NC	<0.05
Molybdenum	1.5	0.5	1.6	0.9	14.0	0.8
Nickel	5	4	1	2	16.7	1
Selenium	0.5	<0.5	<0.5	<0.5	NC	<0.5
Silver	50	<1	<1	<1	NC	<1
Thallium	-	<0.3	<0.3	<0.3	NC	<0.3
Tin	-	<1	<1	<1	NC	<1
Uranium	-	<1	<1	<1	NC	<1
Vanadium	5	<1	2	3	10.0	2
Zinc	250	150	19	39	17.2	51

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds Ontario Ministry of the Environment Vegetation Guidelines
"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 3-1: APEC 3 Soil Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil (Residential)**	**CCME Soil (Commercial)**	**APEC 3**	**APEC 3**	**Relative Percent Difference (%)**	**APEC 3**
Station ID			**3-09-1**	**3-09-1**		**3-09-4M**
Field label			3-09-1-1	3-09-DUP-1		3-09-4M-3
Duplicate ID			3-09-DUP-1	3-09-1-1		
Date			29/Aug/09	29/Aug/09		29/Aug/09
Lab report ID			A947822	A947822		A947822
Depth (m)			0 – 0.45	0 – 0.45		2 – 2.1
Acenaphthene	-	-	<0.01	<0.01	NC	<0.01
Acenaphthylene	-	-	<0.01	<0.01	NC	<0.01
Anthracene	-	-	<0.01	<0.01	NC	<0.01
Benzo(a)anthracene	1	10	<0.01	<0.01	NC	<0.01
Benzo(a)pyrene	0.7	0.7	<0.01	<0.01	NC	<0.01
Benzo(b+j)fluoranthene	-	-	<0.01	<0.01	NC	<0.01
Benzo(g,h,i)perylene	-	-	<0.02	<0.02	NC	<0.02
Benzo(k)fluoranthene	1	10	<0.01	<0.01	NC	<0.01
Chrysene	-	-	<0.01	<0.01	NC	<0.01
Dibenz(a,h)anthracene	1	10	<0.02	<0.02	NC	<0.02
Fluoranthene	-	-	<0.01	<0.01	NC	<0.01
Fluorene	-	-	<0.01	<0.01	NC	<0.01
High molecular weight PAHs	-	-	<0.02	<0.02	NC	<0.02
Indeno(1,2,3-cd)pyrene	1	10	<0.02	<0.02	NC	<0.02
Low molecular weight PAHs	-	-	<0.01	<0.01	NC	0.40
2-Methylnaphthalene	-	-	<0.01	<0.01	NC	0.20
Naphthalene	0.6	22	<0.01	<0.01	NC	0.20
Phenanthrene	5	50	<0.01	<0.01	NC	<0.01
Pyrene	10	100	<0.01	<0.01	NC	<0.01
Total PAHs	-	-	<0.02	<0.02	NC	0.40

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils
Residential guidelines for coarse soil are shown for comparison purposes only.
"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 3-2: APEC 3 Soil Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 3	APEC 3	Relative Percent Difference (%)	APEC 3	APEC 3	APEC 3	APEC 3	APEC 3	APEC 3	APEC 3	Relative Percent Difference (%)
Station ID			**3-09-1**	**3-09-1**		**3-09-2**	**3-09-3**	**3-09-4M**	**3-09-4M**	**3-09-5M**	**3-09-6M**	**3-09-6M**	
Field label			3-09-1-1	3-09-DUP-1		3-09-2-2	3-09-3-2	3-09-4M-2	3-09-4M-3	3-09-5M-2	3-09-6M-3	3-09-DUP-2	
Duplicate ID			3-09-DUP-1	3-09-1-1							3-09-DUP-2	3-09-6M-3	
Date			29/Aug/09	29/Aug/09		29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	
Lab report ID			A947822	A947822		A947822	A947822	A947822	A947822	A947822	A947822	A947822	
Depth (m)			0 – 0.45	0 – 0.45		0.5 – 1.5	0.5 – 1.5	0.5 – 2	2 – 2.1	0.5 – 1	1 – 2	1 – 2	
Moisture content	-	-	5.6	5.8	0.9	7.3	6.5	8.4	8.9	5.3	10.0	9.5	1.3
Lead	-	-	5.9	-	NC	4.6	-	5.5	5.6	2.8	3.9	-	NC
Benzene	0.03	0.03	<0.005	0.006	0.004	0.015	<0.005	0.86	-	<0.005	0.005	<0.005	0.0025
Ethylbenzene	0.082	0.082	<0.01	<0.01	NC	<0.01	<0.01	0.05	0.08	<0.01	0.08	0.10	5.6
Toluene	0.37	0.37	<0.03	<0.03	NC	0.07	<0.05	0.16	0.28	<0.05	<0.05	<0.05	NC
m+p-Xylene	-	-	<0.1	<0.1	NC	<0.1	<0.1	0.3	0.6	<0.1	2.1	1.6	6.8
o-Xylene	-	-	<0.1	<0.1	NC	<0.1	<0.1	0.1	0.2	<0.1	0.9	0.6	10.0
Xylenes (total)	11	11	<0.1	<0.1	NC	<0.1	<0.1	0.5	0.8	<0.1	2.9	2.3	5.8
F1 (C6-C10)	30*	320*	<10	<10	NC	-	-	-	47	-	-	-	NC
F1 (C6-C10) minus BTEX	30*	320*	<10	<10	NC	<10	<10	28	44	110	120	88	7.7
F2 (C10-C16)	150*	260*	<10	<10	NC	<10	<10	16	27	1700	850	860	0.3
F3 (C16-C34)	300*	1700*	220	430	16.2	<10	<10	13	17	30	160	180	2.9
F4 (C34-C50)	2800*	3300*	190	190	0.0	<10	<10	<10	<10	<10	<10	<10	NC
F4 Gravimetric	-	-	3300	-	NC	-	-	-	-	-	-	-	NC
Reached Baseline at C50	-	-	No	Yes	NC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NC

Notes
All units in ug/g, unless otherwise noted.
"-" indicates that there is no applicable regulation or analyses were not performed.
"*" indicates Canada-Wide Standards for Petroleum Hydrocarbons
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils
Residential guidelines for coarse soil are shown for comparison purposes only.
"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 3-3 APEC 3 Soil Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 3	APEC 3	Relative Percent Difference (%)	APEC 3	APEC 3	APEC 3	APEC 3	APEC 3	APEC 3	APEC 3	Relative Percent Difference (%)
Station ID			3-09-1	3-09-1		3-09-2	3-09-3	3-09-4M	3-09-4M	3-09-5M	3-09-6M	3-09-6M	
Field label			3-09-1-1	3-09-DUP-1		3-09-2-2	3-09-3-2	3-09-4M-2	3-09-4M-3	3-09-5M-2	3-09-6M-3	3-09-DUP-2	
Duplicate ID			3-09-DUP-1	3-09-1-1							3-09-DUP-2	3-09-6M-3	
Date			29/Aug/09	29/Aug/09		29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	29/Aug/09	
Lab report ID			A947822	A947822		A947822	A947822	A947822	A947822	A947822	A947822	A947822	
Depth (m)			0 – 0.45	0 – 0.45		0.5 – 1.5	0.5 – 1.5	0.5 – 2	2 – 2.1	0.5 – 1	1 – 2	1 – 2	
Benzene	0.03	0.03	<0.005	0.006	NC	0.015	<0.005	0.86	1.2	<0.005	0.005	<0.005	NC
Bromodichloromethane	-	-	<0.05	<0.05	NC	-	-	-	<0.05	-	-	-	NC
Bromoform	-	-	<0.05	<0.05	NC	-	-	-	<0.05	-	-	-	NC
Bromomethane	-	-	<0.3	<0.3	NC	-	-	-	<0.3	-	-	-	NC
Carbon tetrachloride	5	50	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
Chlorobenzene	1	10	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
Chlorodibromomethane	-	-	<0.05	<0.05	NC	-	-	-	<0.05	-	-	-	NC
Chloroethane	-	-	<0.1	<0.1	NC	-	-	-	<0.1	-	-	-	NC
Chloroform	5	50	<0.05	<0.05	NC	-	-	-	<0.05	-	-	-	NC
Chloromethane		-	<0.1	<0.1	NC	-	-	-	<0.1	-	-	-	NC
1,2-Dichlorobenzene	1	10	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
1,3-Dichlorobenzene	1	10	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
1,4-Dichlorobenzene	1	10	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
1,1-Dichloroethane	5	50	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
1,2-Dichloroethane	5	50	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
1,1-Dichloroethene	5	50	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
cis-1,2-Dichloroethene		-	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
trans-1,2-Dichloroethene		-	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
Dichloromethane	5	50	<0.1	<0.1	NC	-	-	-	<0.1	-	-	-	NC
1,2-Dichloropropane	5	50	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
cis-1,3-Dichloropropene		-	<0.05	<0.05	NC	-	-	-	<0.05	-	-	-	NC
trans-1,3-Dichloropropene		-	<0.05	<0.05	NC	-	-	-	<0.05	-	-	-	NC
Ethylbenzene	0.082	0.082	<0.01	<0.01	NC	<0.01	<0.01	0.05	0.08	<0.01	0.08	0.10	5.56
Ethylene dibromide	-	-	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
Methyl-tert-butylether	-	-	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC
Styrene	5	50	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NC
1,1,1,2-Tetrachloroethane		-	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
1,1,2,2-Tetrachloroethane	5	50	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
Tetrachloroethene	5	50	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
Toluene	0.37	0.37	<0.03	<0.03	NC	0.07	<0.05	0.16	0.28	<0.05	<0.05	<0.05	NC
1,1,1-Trichloroethane	5	50	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
1,1,2-Trichloroethane	5	50	<0.03	<0.03	NC	-	-	-	<0.03	-	-	-	NC
Trichloroethene	5	50	<0.01	<0.01	NC	-	-	-	<0.01	-	-	-	NC
Trichlorofluoromethane	-	-	<0.2	<0.2	NC	-	-	-	<0.2	-	-	-	NC
Vinyl chloride	-	-	<0.08	<0.08	NC	-	-	-	<0.08	-	-	-	NC
m+p-Xylene	-	-	<0.1	<0.1	NC	<0.1	<0.1	0.3	0.6	<0.1	2.1	1.6	6.76
o-Xylene	-	-	<0.1	<0.1	NC	<0.1	<0.1	0.1	0.2	<0.1	0.9	0.6	10.00
Xylenes (total)	11	11	<0.1	<0.1	NC	<0.1	<0.1	0.5	0.8	<0.1	2.9	2.3	5.77

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils
Residential guidelines for coarse soil are shown for comparison purposes only.
"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 3-4: APEC 3 Soil Analysis for PFOS PFOA
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	MPCA Soil CL Guidelines	APEC 3	APEC 3	APEC 3	APEC 3	Relative Percent Difference (%)	APEC 3
Station ID		**3-09-1**	**3-09-3**	**3-09-4M**	**3-09-4M**		**3-09-6M**
Field Label		3-09-1-1	3-09-3-2	3-09-4M-3	3-09-DUP-1		3-09-6M-3
Duplicate ID				3-09-DUP-1	3-09-4M-3		
Sampling Date		29/08/2009	29/08/2009	29/08/2009	29/08/2009		29/08/2009
Lab Report ID		DQ3180	DQ3181	DQ3182	DQ3183		DQ3184
Depth (m)		0 - 0.45	0.5 - 1.5	2.0 - 2.1	2.0 - 2.1		1.0 - 2.0
Miscellaneous Parameters							
Perfluoro-1-Octanesulfonate (PFOS)	2100	830	<25	620	820	27.7	53
Perfluoro-n-Octanoic Acid (PFOA)	2100	<2.5	5.8	9.6	3.2	NC	5.5

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds Minnesota Pollution Control Agency (MPCA) Soil guidelines for PFOS and related compounds
NC indicates that the relative percent difference (%) was not calculated for this parameter

Table 3-5: APEC 3 Soil Analysis for Polychlorinated Biphenyls (PCBs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil Commercial Guidelines	APEC 3	APEC 3	APEC 3	Relative Percent Difference (%)
Station ID		**3-09-4M**	**3-09-4M**	**3-09-4M-3**	
Field Label		3-09-4M-1	3-09-4M-3	3-09-DUP-1	
Duplicate ID			3-09-DUP-1	3-09-4M-3	
Sampling Date		29/08/2009	29/08/2009	29/08/2009	
Lab Report ID		DP3385	DP7276	DW4928	
Depth (m)		0 - 0.5	2.0 - 2.1	2.0 - 2.1	
Inorganics					
Moisture (%)	-	18	5.2	-	NC
PCBs					
Aroclor 1262	-	<0.01	<0.01	<0.01	NC
Aroclor 1016	-	<0.01	<0.01	<0.01	NC
Aroclor 1221	-	<0.01	<0.01	<0.01	NC
Aroclor 1232	-	<0.01	<0.01	<0.01	NC
Aroclor 1242	-	<0.01	<0.01	<0.01	NC
Aroclor 1248	-	<0.01	<0.01	<0.01	NC
Aroclor 1254	-	<0.01	<0.01	<0.01	NC
Aroclor 1260	-	<0.01	<0.01	<0.01	NC
Aroclor 1268	-	<0.01	<0.01	<0.01	NC
Total PCB	-	<0.01	<0.01	<0.01	NC
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene (%)	-	91	65	71	85.7
Decachlorobiphenyl (%)	-	81	70	83	17

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils
NC indicates that the relative percent difference (%) was not calculated for this parameter

Table 3-6: APEC 3 Soil Analysis for Total Lead (Pb) Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 3	APEC 3	Relative Percent Difference (%)	APEC 3	APEC 3	APEC 3	APEC 3	APEC 3
Station ID			**3-09-1**	**3-09-1**		**3-09-2**	**3-09-4M**	**3-09-4M**	**3-09-5M**	**3-09-6M**
Field label			3-09-1-1	3-09-1-1		3-09-2-2	3-09-4M-2	3-09-4M-3	3-09-5M-2	3-09-6M-3
Duplicate ID				Lab Dup						
Date			2009/08/29	2009/08/29		2009/08/29	2009/08/29	2009/08/29	2009/08/29	2009/08/29
Lab report ID			Q56933	Q56933		Q56935	Q56939	Q56940	Q56943	Q56947
Depth (m)			0.0 - 0.5	0.0 - 0.5		0.5 - 1.0	0.5 - 1.0	1.0 - 2.0	0.5 - 1.0	1.0 - 2.0
Lead	140	140	5.9	6.0	1.7	4.6	5.5	5.6	2.8	3.9

Notes

All units in ug/g, unless otherwise noted.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse soils.

Residential land use guidelines for coarse soil are shown for comparison purposes only.

Table 3-7: APEC 3 Soil Analysis for Grain Size
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil Commercial**	**APEC 3**	**APEC 3**
Station ID		**3-09-2**	**3-09-4M**
Field label		3-09-2-1	3-09-4M-2
Duplicate ID			
Date		29/Aug/09	29/Aug/09
Lab report ID		A947822	A947822
Depth (m)		0 – 0.5	0.5 – 2
<200 mesh (>.075 mm)	-	43.7	59.3
>200 mesh (<.075 mm)	-	56.3	40.8

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils

Table 3-8: APEC 3 Groundwater Analysis for Polyaromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Marine)	APEC 3	APEC 3	APEC 3
Station ID		3-09-4M	3-09-5M	3-09-6M
Field label		3-09-4M	3-09-5M	3-09-6M
Duplicate ID				
Date		2/Sep/09	2/Sep/09	2/Sep/09
Lab report ID		A948731	A948731	A948731
Acenaphthene	60	0.11	0.20	<0.10
Acenaphthylene	-	<0.10	<0.10	<0.10
Acridine	0.5	<0.20	<0.20	<0.20
Anthracene	1	<0.010	<0.010	<0.010
Benzo(a)anthracene	1	<0.0085	<0.0085	<0.0085
Benzo(a)pyrene	0.1	<0.0075	<0.0075	<0.0075
Benzo(b+j)fluoranthene	-	<0.0085	<0.0085	<0.0085
Benzo(e)pyrene	-	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	-	<0.0085	<0.0085	<0.0085
Benzo(k)fluoranthene	-	<0.0085	<0.0085	<0.0085
Chrysene	1	<0.0085	<0.0085	<0.0085
Dibenz(a,h)anthracene	-	<0.0075	<0.0075	<0.0075
Fluoranthene	2	<0.040	<0.040	<0.040
Fluorene	120	0.37	0.55	0.066
Indeno(1,2,3-cd)pyrene	-	<0.0085	<0.0085	<0.0085
2-Methylnaphthalene	-	77	82	1.0
Naphthalene	10	330	84	2.1
Perylene	-	<0.050	<0.050	<0.050
Phenanthrene	3	0.30	0.10	<0.050
Pyrene	0.2	0.045	0.025	<0.020
Quinoline	34	<0.20	<0.20	<0.20

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 3-9: APEC 3 Groundwater Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**BC CSR (Marine)**	**APEC 3**	**APEC 3**	**APEC 3**
Station ID		**3-09-4M**	**3-09-5M**	**3-09-6M**
Field label		3-09-4M	3-09-5M	3-09-6M
Duplicate ID				
Date		2/Sep/09	2/Sep/09	2/Sep/09
Lab report ID		A948731	A948731	A948731
Benzene	1000	1700	670.0	2.5
Ethylbenzene	2500	180	38.0	1.1
Toluene	3300	2800	110.0	2.1
m+p-Xylene	-	1500	120.0	13.0
o-Xylene	-	770	150.0	6.2
Xylenes (total)	-	2300	280.0	19.0
F1 (C6-C10) minus BTEX	-	3500	1700	410
F2 (C10-C16)	-	3800	3500	2500
F3 (C16-C34)	-	200	<100	500
F4 (C34-C50)	-	<100	<100	<100
Reached Baseline at C50	-	Yes	Yes	Yes

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 3-10: APEC 3 Groundwater Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Marine)	APEC 3	APEC 3	APEC 3
Station ID		**3-09-4M**	**3-09-5M**	**3-09-6M**
Field label		3-09-4M	3-09-5M	3-09-6M
Duplicate ID				
Date		2/Sep/09	2/Sep/09	2/Sep/09
Lab report ID		A948731	A948731	A948731
Benzene	1000	1700	670.0	2.5
Bromodichloromethane	-	<0.5	<0.5	<0.5
Bromoform	-	<0.5	<0.5	<0.5
Bromomethane	-	<2	<2	<2
Carbon tetrachloride	130	<0.5	<0.5	<0.5
Chlorobenzene	120	<0.5	<0.5	<0.5
Chlorodibromomethane	-	<1	<1	<1
Chloroethane	-	<1	<1	<1
Chloroform	20	<0.5	<0.5	<0.5
Chloromethane	-	<2	<2	<2
1,2-Dichlorobenzene	420	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	1500	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	260	<0.5	<0.5	<0.5
1,1-Dichloroethane	-	<0.5	<0.5	<0.5
1,2-Dichloroethane	1000	14.0	18.0	1.8
1,1-Dichloroethene	-	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	-	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	-	<0.5	<0.5	<0.5
Dichloromethane	980	<2	<2	<2
1,2-Dichloropropane	-	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	-	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	-	<0.5	<0.5	<0.5
Ethylbenzene	2500	180	38.0	1.1
Ethylene dibromide	-	150	7.8	<0.5
Methyl-tert-butylether	4400	<0.5	<0.5	<0.5
Styrene	720	1.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	-	<2	<2	<2
1,1,2,2-Tetrachloroethane	-	<2	<2	<2
Tetrachloroethene	1100	<0.5	<0.5	<0.5
Toluene	3300	2800	110.0	2.1
Total Trihalomethanes	-	<2	<2	<2
1,2,3-Trichlorobenzene	80	<1	<1	<1
1,2,4-Trichlorobenzene	54	<1	<1	<1
1,3,5-Trichlorobenzene	-	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	-	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	-	<0.5	<0.5	<0.5
Trichloroethene	200	<0.5	<0.5	<0.5
Trichlorofluoromethane	-	<0.5	<0.5	<0.5
Vinyl chloride	-	<0.5	<0.5	<0.5
m+p-Xylene	-	1500	120.0	13.0
o-Xylene	-	770	150.0	6.2
Xylenes (total)	-	2300	280.0	19.0

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 3-11: APEC 3 Groundwater Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Marine)	APEC 3	APEC 3	APEC 3
Station ID		**3-09-4M**	**3-09-5M**	**3-09-6M**
Field label		3-09-4M	3-09-5M	3-09-6M
Duplicate ID				
Date		2/Sep/09	2/Sep/09	2/Sep/09
Lab report ID		A948731	A948731	A948731
Hardness (mg/L)	-	550	360	1000
Aluminum	-	1000	40	130
Antimony	200	<2	<2	<2
Arsenic	125	3	<2	6
Barium	5000	70	30	120
Beryllium	1000	<10	<10	<10
Boron	50000	680	290	850
Cadmium	1	<0.05	0.13	0.06
Calcium	-	86000	70000	200000
Chromium	150	<10	<10	<10
Cobalt	40	8	<3	14
Copper	20	12	4	18
Iron	-	1700	190	1600
Lead	20	100	<2	4
Magnesium	-	82000	45000	120000
Manganese	-	330	94	460
Mercury	1	0.005	0.002	0.009
Molybdenum	10000	11	22	7
Nickel	83	42	10	52
Potassium	-	110000	46000	94000
Selenium	540	<2	<2	<2
Silver	15	<1	<1	<1
Sodium	-	260000	130000	300000
Strontium	-	210	150	460
Thallium	3	<2	<2	<2
Tin	-	<10	<10	<10
Titanium	1000	40	<10	<10
Uranium	1000	13	7	14
Vanadium	-	20	10	10
Zinc	100	<30	<30	<30

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 3-12: APEC 3 Vegetation Analysis for Metals Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	MOE Vegetation Guidelines (ppm)	APEC 3	APEC 3
Station ID		3-09-VG1	3-09-VG2
Field label		3-09-VG1	3-09-VG2
Duplicate ID			
Date		2/Sep/09	2/Sep/09
Lab report ID		A948579	A948579
Antimony	0.3	<1	<1
Arsenic	0.5	<1	<1
Barium	-	16	<10
Beryllium	-	<0.4	<0.4
Cadmium	1	<0.1	0.2
Chromium	8	4	<1
Chromium (VI)	-	<0.15	<0.15
Cobalt	2	<1	<1
Copper	20	<5	8
Lead	30	5	<1
Mercury	-	<0.05	<0.05
Molybdenum	1.5	<0.4	<0.4
Nickel	5	2	2
Selenium	0.5	<0.5	<0.5
Silver	50	<1	<1
Thallium	-	<0.3	<0.3
Tin	-	<1	<1
Uranium	-	<1	<1
Vanadium	5	3	1
Zinc	250	14	160

Notes

All units in ug/g.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds Ontario Ministry of the Environment Vegetation Guidelines

Table 4-1: APEC 4 Soil Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil (Residential)**	**CCME Soil (Commercial)**	**APEC 4**	**APEC 4**	**APEC 4**
Station ID			**4A-09-3M**	**4A-09-4**	**4A-09-5**
Field label			4A-09-3M-1	4A-09-4-1	4A-09-5-1
Duplicate ID					
Date			30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822
Depth (m)			0.5 – 1	1.9 – 2	1.3 – 1.5
Acenaphthene	-	-	<0.03	0.2	0.8
Acenaphthylene	-	-	<0.1	<0.1	<0.4
Anthracene	-	-	<0.01	<0.1	<0.3
Benzo(a)anthracene	1	10	<0.01	<0.1	<0.1
Benzo(a)pyrene	0.7	0.7	<0.01	<0.1	<0.1
Benzo(b+j)fluoranthene	-	-	<0.01	<0.1	<0.1
Benzo(g,h,i)perylene	-	-	<0.02	<0.2	<0.2
Benzo(k)fluoranthene	1	10	<0.01	<0.1	<0.1
Chrysene	-	-	<0.01	<0.1	<0.1
Dibenz(a,h)anthracene	1	10	<0.02	<0.2	<0.2
Fluoranthene	-	-	0.02	<0.1	<0.1
Fluorene	-	-	0.14	0.5	2.6
High molecular weight PAHs	-	-	0.03	<0.2	<0.2
Indeno(1,2,3-cd)pyrene	1	10	<0.02	<0.2	<0.2
Low molecular weight PAHs	-	-	5.6	16.0	58.0
2-Methylnaphthalene	-	-	4.0	11.0	39.0
Naphthalene	0.6	22	1.3	4.3	13.0
Phenanthrene	5	50	0.13	0.3	2.6
Pyrene	10	100	0.01	<0.1	0.1
Total PAHs	-	-	5.6	16.0	58.0

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils.
Residential land use guidelines are shown for comparison purposes only.

Table 4-2: APEC 4 Soil Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential\)	CCME Soil (Commercial)	APEC 4	APEC 4	APEC 4	Relative Percent Difference (%)	APEC 4	APEC 4	APEC 4	APEC 4	APEC 4	APEC 4	APEC 4
Station ID			**4A-09-1M**	**4A-09-2M**	**4A-09-2M**		**4A-09-3M**	**4A-09-4**	**4A-09-5**	**4A-09-6**	**4A-09-6**	**4A-09-7**	**4A-09-8**
Field label			4A-09-1M-1	4A-09-2M-1	4A-09-DUP-1		4A-09-3M-1	4A-09-4-1	4A-09-5-1	4A-09-6-1	4A-09-6-2	4A-09-7-1	4A-09-8-1
Duplicate ID				4A-09-DUP-1	4A-09-2M-1								
Date			30/Aug/09	30/Aug/09	30/Aug/09		30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822		A947822	A947822	A947822	A947822	A947822	A947822	A947822
Depth (m)			0.5 – 1	0.6 – 1	0.6 – 1		0.5 – 1	1.9 – 2	1.3 – 1.5	0.5 – 1	1 – 1.5	1.3 – 1.5	1 – 1.7
Moisture content	-	-	11.0	8.7	11.0	5.8	12.0	9.9	9.7	5.6	11.0	8.8	12.0
Benzene	0.03	0.03	<0.005	<0.005	0.009	0.007	1.0	2.9	4.6	<0.005	<0.005	<0.005	0.046
Ethylbenzene	0.082	0.082	<0.01	<0.01	<0.01	NC	5.6	6.8	6.5	<0.01	<0.01	0.02	0.07
Toluene	0.37	0.37	<0.05	<0.05	<0.05	NC	15.00	37.0	1.5	<0.05	<0.05	<0.05	0.06
m+p-Xylene	-	-	<0.1	<0.1	<0.1	NC	22.0	100.0	65.0	<0.1	<0.1	<0.1	0.4
o-Xylene	-	-	<0.1	<0.1	<0.1	NC	7.0	34.0	11.0	<0.1	<0.1	<0.1	2.0
Xylenes (total)	11	11	<0.1	<0.1	<0.1	NC	29.0	140.0	76.0	<0.1	<0.1	<0.1	2.5
F1 (C6-C10)	30*	320*	-	-	-	NC	4800	4600	4400	-	-	-	-
F1 (C6-C10) minus BTEX	30*	320*	<10	<10	<10	NC	4700	4400	4300	<10	<10	32	180
F2 (C10-C16)	150*	260*	<10	<10	<10	NC	740	3700	12000	<10	<10	<10	150
F3 (C16-C34)	300*	1700*	22	<10	<10	NC	140	520	6400	110	27	<10	120
F4 (C34-C50)	2800*	3300*	<10	<10	<10	NC	<10	11	3900	94	15	<10	<10
F4 Gravimetric	-	-	-	-	-	NC	-	-	-	5500	2300	-	-
Reached Baseline at C50	-	-	Yes	Yes	Yes	NC	Yes	Yes	Yes	No	No	Yes	Yes

Notes
All units in ug/g, unless otherwise noted.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils.
Residential land use guidelines are shown for comparison purposes only.
"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 4-3: APEC 4 Soil Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 4	APEC 4	APEC 4	Relative Percent Difference (%)	APEC 4	APEC 4	APEC 4	APEC 4	APEC 4	APEC 4	APEC 4
Station ID			**4A-09-1M**	**4A-09-2M**	**4A-09-2M**		**4A-09-3M**	**4A-09-4**	**4A-09-5**	**4A-09-6**	**4A-09-6**	**4A-09-7**	**4A-09-8**
Field label			4A-09-1M-1	4A-09-2M-1	4A-09-DUP-1		4A-09-3M-1	4A-09-4-1	4A-09-5-1	4A-09-6-1	4A-09-6-2	4A-09-7-1	4A-09-8-1
Duplicate ID				4A-09-DUP-1	4A-09-2M-1								
Date			30/Aug/09	30/Aug/09	30/Aug/09		30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822		A947822	A947822	A947822	A947822	A947822	A947822	A947822
Depth (m)			0.5 – 1	0.6 – 1	0.6 – 1		0.5 – 1	1.9 – 2	1.3 – 1.5	0.5 – 1	1 – 1.5	1.3 – 1.5	1 – 1.7
Benzene	0.03	0.03	<0.005	<0.005	0.009	NC	1.0	2.9	4.6	<0.005	<0.005	<0.005	0.046
Bromodichloromethane	-	-	-	-	-	NC	<0.05	<0.05	<0.05	-	-	-	-
Bromoform	-	-	-	-	-	NC	<0.05	<0.05	<0.05	-	-	-	-
Bromomethane	-	-	-	-	-	NC	<0.3	<0.3	<0.3	-	-	-	-
Carbon tetrachloride	5	50	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
Chlorobenzene	1	10	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
Chlorodibromomethane	-	-	-	-	-	NC	<0.05	<0.05	<0.05	-	-	-	-
Chloroethane	-	-	-	-	-	NC	<0.1	<0.1	<0.1	-	-	-	-
Chloroform	5	50	-	-	-	NC	<0.05	<0.05	<0.05	-	-	-	-
Chloromethane	-	-	-	-	-	NC	<0.1	<0.1	<0.1	-	-	-	-
1,2-Dichlorobenzene	1	10	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
1,3-Dichlorobenzene	1	10	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
1,4-Dichlorobenzene	1	10	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
1,1-Dichloroethane	5	50	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
1,2-Dichloroethane	5	50	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
1,1-Dichloroethene	5	50	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
cis-1,2-Dichloroethene	-	-	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
trans-1,2-Dichloroethene	-	-	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
Dichloromethane	5	50	-	-	-	NC	<0.1	<0.1	<0.1	-	-	-	-
1,2-Dichloropropane	5	50	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
cis-1,3-Dichloropropene	-	-	-	-	-	NC	<0.05	<0.05	<0.05	-	-	-	-
trans-1,3-Dichloropropene	-	-	-	-	-	NC	<0.05	<0.05	<0.05	-	-	-	-
Ethylbenzene	0.082	0.082	<0.01	<0.01	<0.01	NC	5.6	6.8	6.5	<0.01	<0.01	0.02	0.07
Ethylene dibromide	-	-	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
Methyl-tert-butylether	-	-	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Styrene	5	50	<0.1	<0.1	<0.1	NC	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-Tetrachloroethane	-	-	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
1,1,2,2-Tetrachloroethane	5	50	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
Tetrachloroethene	5	50	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
Toluene	0.37	0.37	<0.05	<0.05	<0.05	NC	15.00	37.0	1.5	<0.05	<0.05	<0.05	0.06
1,1,1-Trichloroethane	5	50	-	-	-	NC	<0.03	<0.03	<0.03	-	-	-	-
1,1,2-Trichloroethane	5	50	-	-	-	NC	<2	<9	<6	-	-	-	-
Trichloroethene	5	50	-	-	-	NC	<0.01	<0.01	<0.01	-	-	-	-
Trichlorofluoromethane	-	-	-	-	-	NC	<0.2	<0.2	<0.2	-	-	-	-
Vinyl chloride	-	-	-	-	-	NC	<0.08	<0.08	<0.08	-	-	-	-
m+p-Xylene	-	-	<0.1	<0.1	<0.1	NC	22.0	100.0	65.0	<0.1	<0.1	<0.1	0.4
o-Xylene	-	-	<0.1	<0.1	<0.1	NC	7.0	34.0	11.0	<0.1	<0.1	<0.1	2.0
Xylenes (total)	11	11	<0.1	<0.1	<0.1	NC	29.0	140.0	76.0	<0.1	<0.1	<0.1	2.5

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils.
Residential land use guidelines are shown for comparison purposes only.
"NC" indicates that the relative percent difference (%) was not calculated for this parameter

Table 4-4: APEC 4 Soil Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 4	APEC 4	APEC 4
Station ID			4A-09-3M	4A-09-4	4A-09-5
Field label			4A-09-3M-1	4A-09-4-1	4A-09-5-1
Duplicate ID					
Date			30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822
Depth (m)			0.5 – 1	1.9 – 2	1.3 – 1.5
pH	6 to 8	6 to 8	7.98	8.03	8.55
Aluminum	-	-	4310	4280	3940
Antimony	20	20	0.2	0.2	0.2
Arsenic	12	12	2.7	1.9	1.5
Barium	500	500	27.2	28.3	25.3
Beryllium	4	4	0.3	0.2	0.4
Bismuth	-	-	<0.1	<0.1	<0.1
Cadmium	10	10	0.07	0.08	0.39
Calcium	-	-	75700	75900	92900
Chromium	64	64	11	10	9
Cobalt	50	50	3.9	3.4	3.7
Copper	63	63	9.0	8.2	10.8
Iron	-	-	10600	9540	10100
Lead	140	140	13.5	14.4	294.0
Magnesium	-	-	40300	43100	53500
Manganese	-	-	328.0	275.0	350.0
Mercury	6.6	6.6	<0.05	<0.05	<0.05
Molybdenum	10	10	0.6	0.5	0.7
Nickel	50	50	10.0	9.0	9.5
Potassium	-	-	1900	1890	2250
Selenium	1	1	<0.5	<0.5	<0.5
Silver	20	20	<0.05	<0.05	<0.05
Sodium	-	-	184	180	195
Strontium	-	-	43.5	38.7	35.6
Thallium	1	1	0.10	0.09	0.08
Tin	50	50	0.2	0.2	0.3
Titanium	-	-	184	192	122
Vanadium	130	130	22	19	17
Zinc	200	200	13	11	13
Zirconium	-	-	2.9	2.8	3.1

Notes
All units in ug/g, unless otherwise noted.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils.
Residential land use guidelines are shown for comparison purposes only.

Table 4-5: APEC 4 Groundwater Analysis for Polyaromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Freshwater)	BC CSR (Marine)	APEC 4	APEC 4	APEC 4
Station ID			**4A-09-1M**	**4A-09-2M**	**4A-09-3M**
Field label			4-09-1M	4-09-2M	4-09-3M
Duplicate ID					
Date			2/Sep/09	2/Sep/09	2/Sep/09
Lab report ID			A948579	A948579	A948579
Acenaphthene	60	60	<0.10	<0.10	0.17
Acenaphthylene	-	-	<0.10	<0.10	<0.10
Acridine	0.5	0.5	<0.20	<0.20	<0.20
Anthracene	1	1	<0.010	<0.010	<0.010
Benzo(a)anthracene	1	1	<0.0085	<0.0085	<0.0085
Benzo(a)pyrene	0.1	0.1	<0.0075	<0.0075	<0.0075
Benzo(b+j)fluoranthene	-	-	<0.0085	<0.0085	<0.0085
Benzo(e)pyrene	-	-	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	-	-	<0.0085	<0.0085	<0.0085
Benzo(k)fluoranthene	-	-	<0.0085	<0.0085	<0.0085
Chrysene	1	1	<0.0085	<0.0085	<0.0085
Dibenz(a,h)anthracene	-	-	<0.0075	<0.0075	<0.0075
Fluoranthene	2	2	<0.040	<0.040	0.052
Fluorene	120	120	<0.050	<0.050	0.53
Indeno(1,2,3-cd)pyrene	-	-	<0.0085	<0.0085	<0.0085
2-Methylnaphthalene	-	-	0.59	<0.10	20.0
Naphthalene	10	10	0.78	<0.10	14.0
Perylene	-	-	<0.050	<0.050	<0.050
Phenanthrene	3	3	<0.050	<0.050	0.47
Pyrene	0.2	0.2	<0.020	<0.020	0.038
Quinoline	34	34	<0.20	<0.20	<0.20

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 4-6: APEC 4 Groundwater Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**BC CSR (Freshwater)**	**BC CSR (Marine)**	**APEC 4**	**APEC 4**	**APEC 4**
Station ID			**4A-09-1M**	**4A-09-2M**	**4A-09-3M**
Field label			4-09-1M	4-09-2M	4-09-3M
Duplicate ID					
Date			2/Sep/09	2/Sep/09	2/Sep/09
Lab report ID			A948579	A948579	A948579
Benzene	4000	1000	210.0	<0.4	790
Ethylbenzene	2000	2500	2.0	<0.4	130
Toluene	390	3300	4.6	<0.4	1000
m+p-Xylene	-	-	19.0	<0.8	460
o-Xylene	-	-	18.0	<0.4	180
Xylenes (total)	-	-	37.0	<0.8	640
F1 (C6-C10) minus BTEX	-	-	870	<100	1600
F2 (C10-C16)	-	-	1400	<100	500
F3 (C16-C34)	-	-	<100	<100	<100
F4 (C34-C50)	-	-	<100	<100	<100
Reached Baseline at C50	-	-	Yes	Yes	Yes

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 4-7: APEC 4 Groundwater Analysis for VOCs
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Freshwater)	BC CSR (Marine)	APEC 4	APEC 4	APEC 4
Station ID			4A-09-1M	4A-09-2M	4A-09-3M
Field label			4-09-1M	4-09-2M	4-09-3M
Duplicate ID					
Date			2/Sep/09	2/Sep/09	2/Sep/09
Lab report ID			A948579	A948579	A948579
Benzene	4000	1000	210.0	<0.4	790
Bromodichloromethane	-	-	<0.5	<0.5	<0.5
Bromoform	-	-	<0.5	<0.5	<0.5
Bromomethane	-	-	<2	<2	<2
Carbon tetrachloride	130	130	<0.5	<0.5	<0.5
Chlorobenzene	13	120	<0.5	<0.5	<0.5
Chlorodibromomethane	-	-	<1	<1	<1
Chloroethane	-	-	<1	<1	<1
Chloroform	20	20	<0.5	<0.5	<0.5
Chloromethane	-	-	<2	<2	<2
1,2-Dichlorobenzene	7	420	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	1500	1500	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	260	260	<0.5	<0.5	<0.5
1,1-Dichloroethane	-	-	<0.5	<0.5	<0.5
1,2-Dichloroethane	1000	1000	1.7	<0.5	6.4
1,1-Dichloroethene	-	-	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	-	-	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	-	-	<0.5	<0.5	<0.5
Dichloromethane	980	980	<2	<2	<2
1,2-Dichloropropane	-	-	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	-	-	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	-	-	<0.5	<0.5	<0.5
Ethylbenzene	2000	2500	2.0	<0.4	130
Ethylene dibromide	-	-	<0.5	<0.5	<0.5
Methyl-tert-butylether	34000	10000	<0.5	<0.5	<0.5
Styrene	720	72	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	-	-	<2	<2	<2
1,1,2,2-Tetrachloroethane	-	-	<2	<2	<2
Tetrachloroethene	1100	111	<0.5	<0.5	<0.5
Toluene	390	3300	4.6	<0.4	1000
Total Trihalomethanes	-	-	<2	<2	<2
1,2,3-Trichlorobenzene	80	80	<1	<1	<1
1,2,4-Trichlorobenzene	240	54	<1	<1	<1
1,3,5-Trichlorobenzene	-	-	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	-	-	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	-	-	<0.5	<0.5	<0.5
Trichloroethene	200	200	<0.5	<0.5	<0.5
Trichlorofluoromethane	-	-	<0.5	<0.5	<0.5
Vinyl chloride	-	-	<0.5	<0.5	<0.5
m+p-Xylene	-	-	19.0	<0.8	460
o-Xylene	-	-	18.0	<0.4	180
Xylenes (total)	-	-	37.0	<0.8	640

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

Table 4-8: APEC 4 Groundwater Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Freshwater)	BC CSR (Marine)	APEC 4	APEC 4	APEC 4
Station ID			4A-09-1M	4A-09-2M	4A-09-3M
Field label			4-09-1M	4-09-2M	4-09-3M
Duplicate ID					
Date			2/Sep/09	2/Sep/09	2/Sep/09
Lab report ID			A948579	A948579	A948579
Hardness (mg/L)	-	-	1200	1200	490
Aluminum	-	-	<10	60	<10
Antimony	200	200	<2	<2	<2
Arsenic	50	120	5	<2	6
Barium	10000	5000	90	40	40
Beryllium	53	1000	<10	<10	<10
Boron	50000	50000	550	370	390
Cadmium	0.6 (1)	1	0.32	0.12	0.11
Calcium	-	-	140000	210000	84000
Chromium	10	150	<10	<10	<10
Cobalt	40	40	6	<3	4
Copper	90 (1)	20	<2	3	3
Iron	-	-	970	360	260
Lead	160 (1)	20	<2	<2	18
Magnesium		-	200000	150000	67000
Manganese		-	260	69	170
Mercury	1	1	0.008	0.008	0.006
Molybdenum	10000	10000	40	5	25
Nickel	1500 (1)	83	10	6	11
Potassium		-	27000	20000	15000
Selenium	10	540	<2	<2	<2
Silver	15 (1)	15	<1	<1	<1
Sodium		-	250000	200000	24000
Strontium		-	310	500	150
Thallium	3	3	<2	<2	<2
Tin		-	<10	<10	<10
Titanium	1000	1000	<10	<10	<10
Uranium	3000	1000	32	16	11
Vanadium		-	<10	<10	<10
Zinc	2400 (1)	100	<30	280	<30

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

(1): Hardness Dependant Standard

Table 4-9: APEC 4 Surface Water Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME AW (Freshwater)**	**APEC 4**
Station ID		**4-09-SW1**
Field label		4-09-SW1
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948579
Screen depth (m)		
Acenaphthene	5.8	<0.10
Acenaphthylene	-	<0.10
Acridine	4.4	<0.20
Anthracene	0.012	<0.010
Benzo(a)anthracene	0.018	<0.0085
Benzo(a)pyrene	0.015	<0.0075
Benzo(b+j)fluoranthene	-	<0.0085
Benzo(e)pyrene	-	<0.050
Benzo(g,h,i)perylene	-	<0.0085
Benzo(k)fluoranthene	-	<0.0085
Chrysene	-	<0.0085
Dibenz(a,h)anthracene	-	<0.0075
Fluoranthene	0.04	<0.040
Fluorene	3	<0.050
Indeno(1,2,3-cd)pyrene	-	<0.0085
2-Methylnaphthalene	-	<0.10
Naphthalene	1.1	<0.10
Perylene	-	<0.050
Phenanthrene	0.4	<0.050
Pyrene	0.025	<0.020
Quinoline	3.4	<0.20

Notes
All units in ug/L.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for freshwater.

Table 4-10: APEC 4 Surface Water Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME AW (Freshwater)**	**APEC 4**
Station ID		**4-09-SW1**
Field label		4-09-SW1
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948579
Screen depth (m)		
Benzene	370	<0.4
Ethylbenzene	90	<0.4
Toluene	2	<0.4
m+p-Xylene	-	<0.8
o-Xylene	-	<0.4
Xylenes (total)	-	<0.8
F1 (C6-C10) minus BTEX	-	<100
F2 (C10-C16)	-	<100
F3 (C16-C34)	-	<100
F4 (C34-C50)	-	<100
Reached Baseline at C50	-	Yes

Notes
All units in ug/L.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for freshwater.

Table 4-11: APEC 4 Surface Water Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME AW (Freshwater)**	**APEC 4**
Station ID		**4-09-SW1**
Field label		4-09-SW1
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948579
Screen depth (m)		
Benzene	370	<0.4
Bromodichloromethane	-	<0.5
Bromoform	-	<0.5
Bromomethane	-	<2
Carbon tetrachloride	13.3	<0.5
Chlorobenzene	1.3	<0.5
Chlorodibromomethane	-	<1
Chloroethane	-	<1
Chloroform	1.8	<0.5
Chloromethane	-	<2
1,2-Dichlorobenzene	0.7	<0.5
1,3-Dichlorobenzene	150	<0.5
1,4-Dichlorobenzene	26	<0.5
1,1-Dichloroethane	-	<0.5
1,2-Dichloroethane	100	<0.5
1,1-Dichloroethene	-	<0.5
cis-1,2-Dichloroethene	-	<0.5
trans-1,2-Dichloroethene	-	<0.5
Dichloromethane	98.1	<2
1,2-Dichloropropane	-	<0.5
cis-1,3-Dichloropropene	-	<0.5
trans-1,3-Dichloropropene	-	<0.5
Ethylbenzene	90	<0.4
Ethylene dibromide	-	<0.5
Methyl-tert-butylether	10000	<0.5
Styrene	72	<0.5
1,1,1,2-Tetrachloroethane	-	<2
1,1,2,2-Tetrachloroethane	-	<2
Tetrachloroethene	111	<0.5
Toluene	2	<0.4
Total Trihalomethanes	-	<2
1,2,3-Trichlorobenzene	8	<1
1,2,4-Trichlorobenzene	24	<1
1,3,5-Trichlorobenzene	-	<0.5
1,1,1-Trichloroethane	-	<0.5
1,1,2-Trichloroethane	-	<0.5
Trichloroethene	21	<0.5
Trichlorofluoromethane	-	<0.5
Vinyl chloride	-	<0.5
m+p-Xylene	-	<0.8
o-Xylene	-	<0.4
Xylenes (total)	-	<0.8

Notes
All units in ug/L.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for freshwater.

Table 4-12: APEC 4 Surface Water Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME AW (Freshwater)	APEC 4
Station ID		4-09-SW1
Field label		4-09-SW1
Duplicate ID		
Date		2/Sep/09
Lab report ID		A948579
Screen depth (m)		
Hardness	-	880
Aluminum	5	20
Antimony	-	<2
Arsenic	5	<2
Barium	-	40
Beryllium	-	<10
Boron	-	310
Cadmium	0.017	<0.05
Calcium	-	140000
Chromium	-	<10
Cobalt	-	<3
Copper	2	<2
Iron	300	240
Lead	1	<2
Magnesium	-	130000
Manganese	-	51
Mercury	0.026	0.008
Molybdenum	73	3
Nickel	25	<5
Potassium	-	20000
Selenium	1	<2
Silver	0.1	<1
Sodium	-	310000
Strontium	-	320
Thallium	0.8	<2
Tin	-	<10
Titanium	-	<10
Uranium	-	6
Vanadium	-	<10
Zinc	30	<30

Notes
All units in ug/L.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME Canadian Environmental Quality Guidelines for freshwater.

Table 5-1: APEC 5 Soil Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil (Residential)**	**CCME Soil (Commercial)**	**APEC 5**	**APEC 5**	**APEC 5**	**APEC 5**
Station ID			**5-09-TP1**	**5-09-TP2**	**5-09-TP3**	**5-09-TP4**
Field label			5-09-TP1-1	5-09-TP2-1	5-09-TP3-1	5-09TP4-3
Duplicate ID						
Date			30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822	A947822
Depth (m)			0.2 – 0.5	0.2 – 0.5	0.2 – 0.5	0.6 - 1.5
Acenaphthene	-	-	<0.01	<0.01	0.04	<0.01
Acenaphthylene	-	-	<0.01	<0.01	<0.01	<0.01
Anthracene	-	-	<0.01	<0.01	0.09	<0.01
Benzo(a)anthracene	1	10	<0.01	<0.01	0.18	<0.01
Benzo(a)pyrene	0.7	0.7	<0.01	<0.01	0.19	<0.01
Benzo(b+j)fluoranthene	-	-	<0.01	<0.01	0.27	<0.01
Benzo(g,h,i)perylene	-	-	<0.02	<0.02	0.10	<0.02
Benzo(k)fluoranthene	1	10	<0.01	<0.01	0.09	<0.01
Chrysene	-	-	<0.01	<0.01	0.19	<0.01
Dibenz(a,h)anthracene	1	10	<0.02	<0.02	<0.02	<0.02
Fluoranthene	-	-	<0.01	<0.01	0.60	<0.01
Fluorene	-	-	<0.01	<0.01	0.04	<0.01
High molecular weight PAHs	-	-	<0.02	<0.02	2.1	<0.02
Indeno(1,2,3-cd)pyrene	1	10	<0.02	<0.02	0.10	<0.02
Low molecular weight PAHs	-	-	0.01	<0.01	0.61	<0.01
2-Methylnaphthalene	-	-	<0.01	<0.01	<0.01	<0.01
Naphthalene	0.6	22	0.01	<0.01	0.03	<0.01
Phenanthrene	5	50	<0.01	<0.01	0.40	<0.01
Pyrene	10	100	<0.01	<0.01	0.40	<0.01
Total PAHs	-	-	<0.02	<0.02	2.7	<0.02

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME – Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils.
Residential land use guidelines are shown for comparison purposes only.

Table 5-2: APEC 5 Soil Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	**CCME Soil (Residential)**	**CCME Soil (Commercial)**	**APEC 5**	**APEC 5**	**APEC 5**	**APEC 5**
Station ID			**5-09-TP1**	**5-09-TP2**	**5-09-TP3**	**5-09-TP4**
Field label			5-09-TP1-1	5-09-TP2-1	5-09-TP3-1	5-09TP4-3
Duplicate ID						
Date			30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822	A947822
Depth (m)			0.2 – 0.5	0.2 – 0.5	0.2 – 0.5	0.6 - 1.5
Moisture content	-	-	19.0	21.0	13.0	6.2
Benzene	0.03	0.03	0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.082	0.082	0.01	<0.01	<0.01	<0.01
Toluene	0.37	0.37	<0.03	<0.03	<0.03	<0.03
m+p-Xylene	-	-	<0.1	<0.1	<0.1	<0.1
o-Xylene	-	-	<0.1	<0.1	<0.1	<0.1
Xylenes (total)	11	11	<0.1	<0.1	<0.1	<0.1
F1 (C6-C10)	30*	320*	<10	<10	<10	<10
F1 (C6-C10) minus BTEX	30*	320*	<10	<10	<10	<10
F2 (C10-C16)	150*	260*	<10	<10	<10	<10
F3 (C16-C34)	300*	1700*	<10	47	350	<10
F4 (C34-C50)	2800*	3300*	<10	<10	23	<10
Reached Baseline at C50	-	-	Yes	Yes	Yes	Yes

Notes
All units in ug/g, unless otherwise noted.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME – Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils.
Residential land use guidelines are shown for comparison purposes only.

Table 5-3: APEC 5 Soil Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 5	APEC 5	APEC 5	APEC 5
Station ID			5-09-TP1	5-09-TP2	5-09-TP3	5-09-TP4
Field label			5-09-TP1-1	5-09-TP2-1	5-09-TP3-1	5-09TP4-3
Duplicate ID						
Date			30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822	A947822
Depth (m)			0.2 – 0.5	0.2 – 0.5	0.2 – 0.5	0.6 - 1.5
Benzene	0.03	0.03	0.005	<0.005	<0.005	<0.005
Bromodichloromethane	-	-	<0.05	<0.05	<0.05	<0.05
Bromoform	-	-	<0.05	<0.05	<0.05	<0.05
Bromomethane	-	-	<0.3	<0.3	<0.3	<0.3
Carbon tetrachloride	5	50	<0.03	<0.03	<0.03	<0.03
Chlorobenzene	1	10	<0.03	<0.03	<0.03	<0.03
Chlorodibromomethane	-	-	<0.05	<0.05	<0.05	<0.05
Chloroethane	-	-	<0.1	<0.1	<0.1	<0.1
Chloroform	5	50	<0.05	<0.05	<0.05	<0.05
Chloromethane	-	-	<0.1	<0.1	<0.1	<0.1
1,2-Dichlorobenzene	1	10	<0.03	<0.03	<0.03	<0.03
1,3-Dichlorobenzene	1	10	<0.03	<0.03	<0.03	<0.03
1,4-Dichlorobenzene	1	10	<0.03	<0.03	<0.03	<0.03
1,1-Dichloroethane	5	50	<0.03	<0.03	<0.03	<0.03
1,2-Dichloroethane	5	50	<0.03	<0.03	<0.03	<0.03
1,1-Dichloroethene	5	50	<0.03	<0.03	<0.03	<0.03
cis-1,2-Dichloroethene	-	-	<0.03	<0.03	<0.03	<0.03
trans-1,2-Dichloroethene	-	-	<0.03	<0.03	<0.03	<0.03
Dichloromethane	5	50	<0.1	<0.1	<0.1	<0.1
1,2-Dichloropropane	5	50	<0.03	<0.03	<0.03	<0.03
cis-1,3-Dichloropropene	-	-	<0.05	<0.05	<0.05	<0.05
trans-1,3-Dichloropropene	-	-	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	0.082	0.082	0.01	<0.01	<0.01	<0.01
Ethylene dibromide	-	-	<0.03	<0.03	<0.03	<0.03
Methyl-tert-butylether	-	-	<0.1	<0.1	<0.1	<0.1
Styrene	5	50	<0.1	<0.1	<0.1	<0.1
1,1,1,2-Tetrachloroethane	-	-	<0.03	<0.03	<0.03	<0.03
1,1,2,2-Tetrachloroethane	5	50	<0.03	<0.03	<0.03	<0.03
Tetrachloroethene	5	50	<0.03	<0.03	<0.03	<0.03
Toluene	0.37	0.37	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	5	50	<0.03	<0.03	<0.03	<0.03
1,1,2-Trichloroethane	5	50	<0.03	<0.03	<0.03	<0.03
Trichloroethene	5	50	<0.01	<0.01	<0.01	<0.01
Trichlorofluoromethane	-	-	<0.2	<0.2	<0.2	<0.2
Vinyl chloride	-	-	<0.08	<0.08	<0.08	<0.08
m+p-Xylene	-	-	<0.1	<0.1	<0.1	<0.1
o-Xylene	-	-	<0.1	<0.1	<0.1	<0.1
Xylenes (total)	11	11	<0.1	<0.1	<0.1	<0.1

Notes
All units in ug/g.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME – Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils.
Residential land use guidelines are shown for comparison purposes only.

Table 5-4: APEC 5 Soil Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	CCME Soil (Residential)	CCME Soil (Commercial)	APEC 5	APEC 5	APEC 5	APEC 5
Station ID			5-09-TP1	5-09-TP2	5-09-TP3	5-09-TP4
Field label			5-09-TP1-1	5-09-TP2-1	5-09-TP3-1	5-09TP4-3
Duplicate ID						
Date			30/Aug/09	30/Aug/09	30/Aug/09	30/Aug/09
Lab report ID			A947822	A947822	A947822	A947822
Depth (m)			0.2 – 0.5	0.2 – 0.5	0.2 – 0.5	0.6 - 1.5
pH	6 to 8	6 to 8	8.28	8.29	8.60	8.49
Aluminum	-	-	6630	2640	3300	4420
Antimony	20	20	<0.1	<0.1	0.3	<0.1
Arsenic	12	12	2.1	2.4	1.6	0.7
Barium	500	500	35.5	28.2	35.6	33.3
Beryllium	4	4	0.3	0.4	0.3	0.3
Bismuth	-	-	<0.1	<0.1	<0.1	<0.1
Cadmium	10	10	0.14	<0.05	0.05	<0.05
Calcium	-	-	53900	95400	91400	57400
Chromium	64	64	15	12	9	9
Cobalt	50	50	6.7	7.1	3.6	4.7
Copper	63	63	11.8	13.7	8.0	9.3
Iron	-	-	13100	15200	9350	9010
Lead	140	140	6.5	10.6	16.9	7.5
Magnesium	-	-	32300	54000	51600	30400
Manganese	-	-	340.0	535.0	322.0	247.0
Mercury	6.6	6.6	<0.05	<0.05	<0.05	<0.05
Molybdenum	10	10	0.5	0.7	0.6	0.3
Nickel	50	50	14.8	18.2	8.7	10.7
Potassium	-	-	2530	1750	1790	2250
Selenium	1	1	<0.5	<0.5	<0.5	<0.5
Silver	20	20	0.06	0.07	<0.05	0.06
Sodium	-	-	179	180	163	229
Strontium	-	-	26.9	47.4	34.5	21.6
Thallium	1	1	0.13	0.08	0.09	0.11
Tin	50	50	0.3	0.2	0.2	0.2
Titanium	-	-	299	69	134	188
Vanadium	130	130	22	21	14	14
Zinc	200	200	34	8	12	13
Zirconium	-	-	4.8	5.2	2.4	3.9

Notes
All units in ug/g, unless otherwise noted.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CCME – Canadian Environmental Quality Guidelines for commercial land use in coarse-grained soils.
Residential land use guidelines are shown for comparison purposes only.

Table 5-5: APEC 5 Groundwater Analysis for Polycyclic Aromatic Hydrocarbons (PAHs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Freshwater)	BC CSR (Marine)	APEC 5
Station ID			5-09-MW3
Field label			5-09-MW3
Duplicate ID			
Date			1/Sep/09
Lab report ID			A948731
Acenaphthene	60	60	<0.10
Acenaphthylene	-	-	<0.10
Acridine	0.5	0.5	<0.20
Anthracene	1	1	<0.010
Benzo(a)anthracene	1	1	<0.0085
Benzo(a)pyrene	0.1	0.1	<0.0075
Benzo(b+j)fluoranthene	-	-	<0.0085
Benzo(e)pyrene	-	-	<0.050
Benzo(g,h,i)perylene	-	-	<0.0085
Benzo(k)fluoranthene	-	-	<0.0085
Chrysene	1	1	<0.0085
Dibenz(a,h)anthracene	-	-	<0.0075
Fluoranthene	2	2	<0.040
Fluorene	120	120	<0.050
Indeno(1,2,3-cd)pyrene	-	-	<0.0085
2-Methylnaphthalene	-	-	<0.10
Naphthalene	10	10	<0.10
Perylene	-	-	<0.050
Phenanthrene	3	3	<0.050
Pyrene	0.2	0.2	<0.020
Quinoline	34	34	<0.20

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

CCME Canadian Environmental Quality Guidelines are shown for comparison purposes only

Table 5-6: APEC 5 Groundwater Analysis for Petroleum Hydrocarbons (PHCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Freshwater)	BC CSR (Marine)	APEC 5
Station ID			**5-09-MW3**
Field label			5-09-MW3
Duplicate ID			
Date			1/Sep/09
Lab report ID			A948731
Benzene	4000	1000	<0.4
Ethylbenzene	2000	2500	<0.4
Toluene	390	3300	1.1
m+p-Xylene	-	-	<0.8
o-Xylene	-	-	1.1
Xylenes (total)	-	-	1.1
F1 (C6-C10) minus BTEX	-	-	<100
F2 (C10-C16)	-	-	<100
F3 (C16-C34)	-	-	<100
F4 (C34-C50)	-	-	<100
Reached Baseline at C50	-	-	Yes

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.
CCME Canadian Environmental Quality Guidelines are shown for comparison purposes only

Table 5-7: APEC 5 Groundwater Analysis for Volatile Organic Compounds (VOCs)
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Freshwater)	BC CSR (Marine)	APEC 5
Station ID			5-09-MW3
Field label			5-09-MW3
Duplicate ID			
Date			1/Sep/09
Lab report ID			A948731
Benzene	4000	1000	<0.4
Bromodichloromethane	-	-	<0.5
Bromoform	-	-	<0.5
Bromomethane	-	-	<2
Carbon tetrachloride	130	130	<0.5
Chlorobenzene	13	120	<0.5
Chlorodibromomethane	-	-	<1
Chloroethane	-	-	<1
Chloroform	20	20	<0.5
Chloromethane	-	-	<2
1,2-Dichlorobenzene	7	420	<0.5
1,3-Dichlorobenzene	1500	1500	<0.5
1,4-Dichlorobenzene	260	260	<0.5
1,1-Dichloroethane	-	-	<0.5
1,2-Dichloroethane	1000	1000	<0.5
1,1-Dichloroethene	-	-	<0.5
cis-1,2-Dichloroethene	-	-	<0.5
trans-1,2-Dichloroethene	-	-	<0.5
Dichloromethane	980	980	<2
1,2-Dichloropropane	-	-	<0.5
cis-1,3-Dichloropropene	-	-	<0.5
trans-1,3-Dichloropropene	-	-	<0.5
Ethylbenzene	2000	2500	<0.4
Ethylene dibromide	-	-	<0.5
Methyl-tert-butylether	34000	4400	<0.5
Styrene	720	720	<0.5
1,1,2,2-Tetrachloroethane	-	-	<2
Tetrachloroethene	1100	1100	<0.5
Toluene	390	3300	1.1
Total Trihalomethanes	-	-	<2
1,2,3-Trichlorobenzene	80	80	<1
1,2,4-Trichlorobenzene	240	54	<1
1,3,5-Trichlorobenzene	-	-	<0.5
1,1,1-Trichloroethane	-	-	<0.5
1,1,2-Trichloroethane	-	-	<0.5
Trichloroethene	200	200	<0.5
Trichlorofluoromethane	-	-	<0.5
Vinyl chloride	-	-	<0.5
m+p-Xylene	-	-	<0.8
o-Xylene	-	-	1.1
Xylenes (total)	-	-	1.1

Notes

All units in ug/L unless otherwise indicated.

"-" indicates that there is no applicable regulation or analyses were not performed.

Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.

CCME – Canadian Environmental Quality Guidelines are shown for comparison purposes only

Table 5-8: APEC 5 Groundwater Analysis for Metals
Cambridge Bay Airport, Cambridge Bay, Nunavut

Area ID	BC CSR (Freshwater)	BC CSR (Marine)	APEC 5
Station ID			5-09-MW3
Field label			5-09-MW3
Duplicate ID			
Date			1/Sep/09
Lab report ID			A948731
Hardness (mg/L)	-	-	930
Aluminum	-	-	50
Antimony	200	200	<2
Arsenic	50	120	<2
Barium	10000	5000	50
Beryllium	53	1000	<10
Boron	50000	50000	500
Cadmium	0.6 (1)	1	0.07
Calcium	-	-	120000
Chromium	10	150	<10
Cobalt	40	40	<3
Copper	90 (1)	20	4
Iron	-	-	270
Lead	160 (1)	20	<2
Magnesium	-	-	150000
Manganese	-	-	120
Mercury	1	1	0.004
Molybdenum	10000	10000	10
Nickel	1500 (1)	83	5
Potassium	-	-	40000
Selenium	10	540	<2
Silver	15	15	<1
Sodium	-	-	680000
Strontium	-	-	330
Thallium	3	3	<2
Tin	-	-	<10
Uranium	3000	1000	13
Vanadium	-	-	<10
Zinc	2400 (1)	100	<30

Notes

All units in ug/L unless otherwise indicated.
"-" indicates that there is no applicable regulation or analyses were not performed.
Red cells indicates parameter exceeds CSR – B.C. Reg. 343/2008.
(1) : Standard is hardness dependent.

APPENDIX H

Field Measurements

Field Measurements
Cambridge Bay, Nunavut

Site	pH	Conductivity	Turbidity	Dissolved Oxygen	Temperature
1-09-1M	6.80	2.60	698.0	10.38	4.63
	6.79	2.95	>1000	10.90	3.68
	6.85	0.09	>1000	11.29	4.32
	6.90	3.48	>1000	11.55	4.28
	6.93	3.34	>1000	11.62	3.17
	6.96	3.21	>1000	11.62	3.14
	7.10	0.04	>1000	11.47	3.59
Average	**6.90**	**2.24**	**N/A**	**11.26**	**3.83**
1-09-2M	7.66	4.06	159.0	9.12	5.23
	7.66	0.02	>1000	9.66	3.53
	7.74	4.77	>1000	9.87	3.10
	7.78	4.35	>1000	9.78	3.32
	7.75	4.30	>1000	9.84	3.14
	7.76	3.97	>1000	9.84	3.25
Average	**7.73**	**3.58**	**N/A**	**9.69**	**3.60**
1-09-3M	7.30	6.41	197.0	10.69	4.71
	7.23	6.53	>1000	11.21	3.68
	7.28	0.08	>1000	11.40	3.62
	7.30	0.03	>1000	11.29	3.71
Average	**7.28**	**3.26**	**N/A**	**11.15**	**3.93**
1-09-4M	7.40	0.009	>1000	9.13	4.90
	7.44	0.007	321.0	9.66	3.64
	7.33	2.90	>1000	9.79	3.34
	7.26	2.84	920.0	9.19	4.80
	7.30	2.72	>1000	9.61	3.93
	7.32	0.017	>1000	10.06	2.90
Average	**7.34**	**1.42**	**N/A**	**9.57**	**3.92**
1-09-5M	7.17	7.24	361.0	10.63	5.32
	7.21	6.90	>1000	10.70	4.98
	7.12	7.08	>1000	10.85	4.94
	7.20	6.99	>1000	10.97	4.61
	7.27	0.05*	>1000	11.00	4.58
	7.30	7.09	>1000	10.85	4.68
	7.30	7.05	844.0	10.95	4.45
Average	**7.22**	**7.06**	**N/A**	**10.85**	**4.79**
2-09-MW4	7.37	7.08	400.0	8.90	6.69
	7.83	1.60	>1000	9.01	6.49
	7.92	1.40	>1000	8.98	6.49
	7.85	1.45	>1000	8.98	6.50
	7.92	1.40	>1000	9.01	6.47
Average	**7.78**	**2.59**	**N/A**	**8.98**	**6.53**

Site	pH	Conductivity	Turbidity	Dissolved Oxygen	Temperature
3-09-4M	7.43	3.57	480.0	8.81	6.99
	7.63	1.61	>1000	8.94	6.63
	7.57	1.64	>1000	8.92	6.71
	7.31	0.143	>1000	8.89	6.77
	7.23	3.20	>1000	9.34	5.60
	7.26	2.97	>1000	9.29	5.74
Average	**7.41**	**2.19**	**N/A**	**9.03**	**6.41**
3-09-5M	7.02	0.09	810.0	9.32	4.51
	7.03	0.018	>1000	9.72	3.70
	7.01	6.82	>1000	10.16	2.90
Average	**7.02**	**2.31**	**N/A**	**9.73**	**3.70**
3-09-6M	7.09	2.80	316.0	10.04	3.04
	6.99	2.88	>1000	10.59	1.83
	6.98	2.87	>1000	10.42	2.27
	6.99	2.87	>1000	10.64	1.75
	6.98	2.96	>1000	10.70	1.65
	6.98	2.96	>1000	10.64	1.77
Average	**7.00**	**2.89**	**N/A**	**10.51**	**2.05**
4A-09-1M	7.01	3.53	260.0	8.80	5.97
	7.01	3.54	262.0	8.76	5.98
	7.04	3.32	>1000	9.71	3.77
	7.05	3.32	>1000	9.66	3.86
	7.04	3.30	>1000	9.57	4.10
	7.05	3.29	>1000	9.54	4.14
Average	**7.03**	**3.38**	**N/A**	**9.34**	**4.64**
4A-09-2M	7.19	2.28	380.0	8.76	5.72
	7.16	2.77	>1000	9.40	4.41
	7.12	2.77	>1000	8.86	5.56
	7.12	2.77	>1000	8.87	5.59
	7.12	2.77	>1000	8.86	5.58
Average	**7.14**	**2.67**	**N/A**	**8.95**	**5.37**
4A-09-3M	6.93	1.69	308.0	9.20	4.85
	6.90	1.68	305.0	9.21	4.91
	6.93	1.69	304.0	9.19	4.93
	7.00	1.34	>1000	9.25	4.76
Average	**6.94**	**1.60**	**N/A**	**9.21**	**4.86**

APPENDIX I

NCSCS Scoresheets

CCME National Classification System for Contaminated Sites (2008)
Pre-Screening Checklist

Question	Response (yes / no)	Comment
1. Are **Radioactive material**, **Bacterial contamination** or **Biological hazards** likely to be present at the site?	No	If yes, do not proceed through the NCSCS. Contact applicable regulatory agency immediately.
2. Are there **no contamination exceedances** (known or suspected)? Determination of exceedances may be based on: 1) CCME environmental quality guidelines; 2) equivalent provincial guidelines/standards if no CCME guideline exists for a specific chemical in a relevant medium; or 3) toxicity benchmarks derived from the literature for chemicals not covered by CCME or provincial guidelines/standards.	No	If yes (i.e., there are no exceedances), do not proceed through the NCSCS.
3. Have **partial/incompleted or no environmental site investigations** been conducted for the Site?	No	If yes, do not proceed through the NCSCS.
4. Is there direct and signficant evidence of **impacts to humans** at the site, or off-site due to migration of contaminants from the site?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
5. Is there direct and significant evidence of **impacts to ecological receptors** at the site, or off-site due to migration of contaminants from the site?	No	Some low levels of impact to ecological receptors are considered acceptable, particularly on commercial and industrial land uses. However, if ecological effects are considered to be severe, the site may be categorized as Class 1, regardless of the numerical total NCSCS score. For the purpose of application of the NCSCS, effects that would be considered severe include observed effects on survival, growth or reproduction which could threaten the viability of a population of ecological receptors at the site. Other evidence that qualifies as severe adverse effects may be determined based on professional judgement and in consultation with the relevant jurisdiction.
6. Are there indicators of significant **adverse effects in the exposure zone** (i.e., the zone in which receptors may come into contact with contaminants)? Some examples are as follows: -Hydrocarbon sheen or NAPL in the exposure zone -Severely stressed biota or devoid of biota; -Presence of material at ground surface or sediment with suspected high concentration of contaminants such as ore tailings, sandblasting grit, slag, and coal tar.	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
7. Do measured concentrations of volatiles or unexploded ordnances represent an **explosion hazard**?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, and do not continue until the safety risks have been addressed. Consult your jurisdiction's occupational health and safety guidance or legislation on exposive hazards and measurement of lower explosive limits.

If none of the above applies, proceed with the NCSCS scoring.

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

Subject Site:	**Former Screening Plant / Boneyard (APEC 1)**	
Civic Address: *(or other description of location)*	Cambridge Bay Airport, Cambridge Bay, NT	
Site Common Name : *(if applicable)*	Former Screening Plant / Boneyard	
Site Owner or Custodian: *(Organization and Contact Person)*	Governement of Nunavut Shawn Maley (Director, Nunavut Airports) 867-645-8203	
Legal description *or* metes and bounds:	Lot 1004, QUAD77/D2, 79787 CLSR, 2958LTO	
Approximate Site area:	5,500 m2	
PID(s) : *(or Parcel Identification Numbers [PIN] if untitled Crown land)*	N/A	
Centre of site: *(provide latitude/longitude or UTM coordinates)*	Latitude: Longitude:	__69__ degrees __06_ min __39.00__ secs __105_ degrees __09__ min __06.11__ secs
	UTM Coordinate:	
Site Land Use:	Current:	Commercial
	Proposed:	Commercial
Site Plan	**To delineate the bounds of the Site a site plan MUST be attached. The plan must be drawn to scale indicating the boundaries in relation to well-defined reference points and/or legal descriptions. Delineation of the contamination should also be indicated on the site plan.**	
Provide a brief description of the Site:	The screening plant/boneyard was historically used for screening and stockpiling gravel and for storing old discarded equipment.	

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

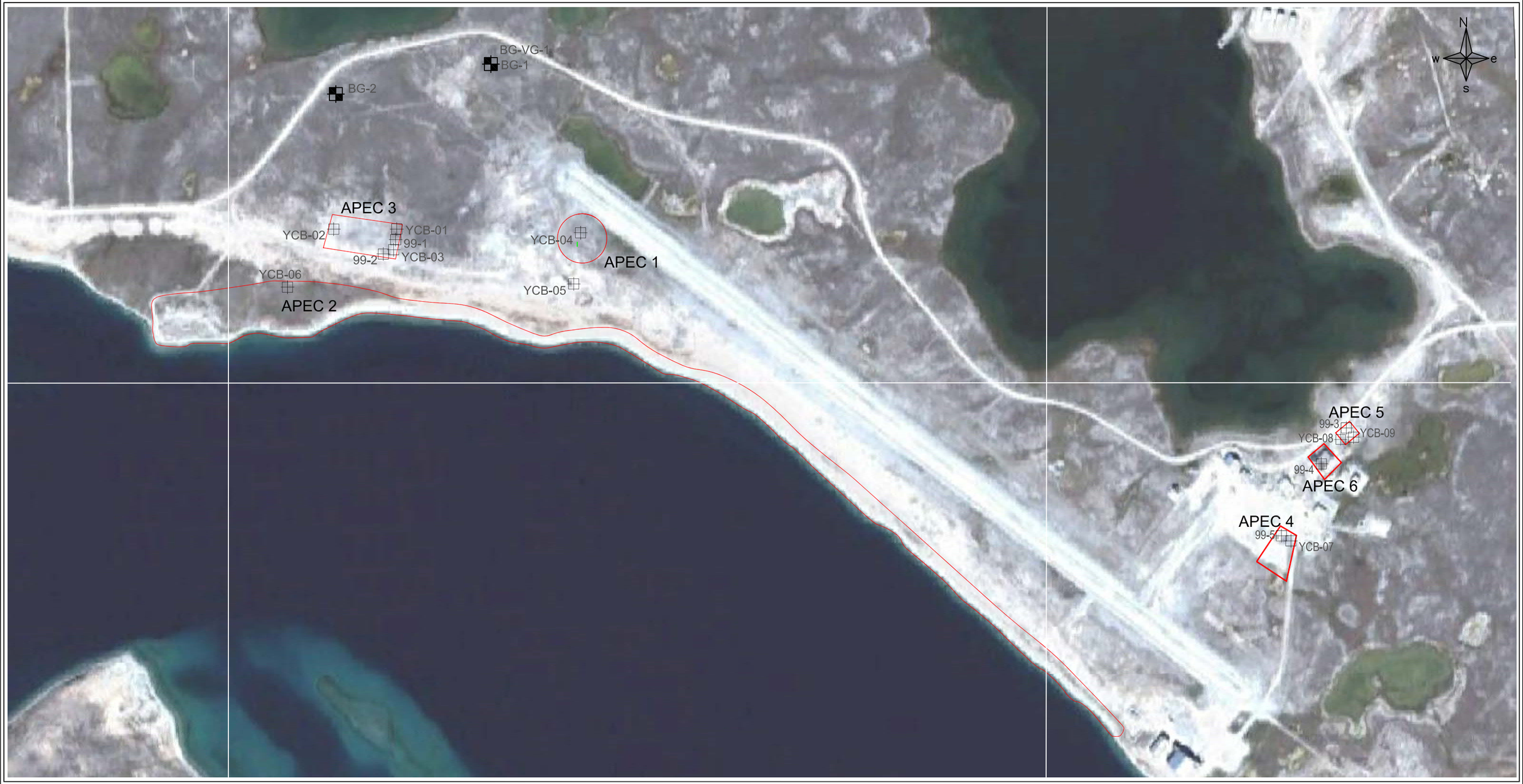
Affected media and Contaminants of Potential Concern (COPC):	Affected Media: Soil and groundwater COPC: BTEX, F1-F4, PAH, VOC, Glycols, Metals, PCBs and Pesticides

Please fill in the "letter" that best describes the level of information available for the site being assessed

Site Letter Grade **C**

If letter grade is F, do not continue, you must have a minimum of a Phase I Environmental Site Assessment or equivalent.

Scoring Completed By:	**Viviane Dubois-Cote**
Date Scoring Completed:	**19-Jan-10**



LEGEND

- Area of Potential Environmental Concern (APEC)
- Background Sampling Location (Franz 2009)
- YCB-01 Soil/Groundwater Sample Location - Dillon 1995
- 99-1 Soil/Groundwater Sample Location - AGRA 1999

[redacted]

SCALE 1:6,600

200 150 100 50 0 200
metres

References:
Google Earth satellite image, 2009
APEC locations based on dGPS coordinates (UTM - NAD 83)
Sampling locations derived from historical reports

Title:
APEC LOCATIONS

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project:
CAMBRIDGE BAY AIRPORT PHASE II/III
ENVIRONMENTAL SITE ASSESSMENT
DRAFT FIELD REPORT

Date:
JANUARY 2010

Client:
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
TRANSPORT CANADA

Scale:
1 : 6,600

FIGURE 2

1748-0901/CAD/Cambridge Bay.dwg DRAFT Jan 29/10

CCME National Classification System for Contaminated Sites (2008)
Pre-Screening Checklist

Question	Response (yes / no)	Comment
1. Are **Radioactive material**, **Bacterial contamination** or **Biological hazards** likely to be present at the site?	No	If yes, do not proceed through the NCSCS. Contact applicable regulatory agency immediately.
2. Are there **no contamination exceedances** (known or suspected)? Determination of exceedances may be based on: 1) CCME environmental quality guidelines; 2) equivalent provincial guidelines/standards if no CCME guideline exists for a specific chemical in a relevant medium; or 3) toxicity benchmarks derived from the literature for chemicals not covered by CCME or provincial guidelines/standards.	No	If yes (i.e., there are no exceedances), do not proceed through the NCSCS.
3. Have **partial/incompleted or no environmental site investigations** been conducted for the Site?	No	If yes, do not proceed through the NCSCS.
4. Is there direct and signficant evidence of **impacts to humans** at the site, or off-site due to migration of contaminants from the site?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
5. Is there direct and significant evidence of **impacts to ecological receptors** at the site, or off-site due to migration of contaminants from the site?	No	Some low levels of impact to ecological receptors are considered acceptable, particularly on commercial and industrial land uses. However, if ecological effects are considered to be severe, the site may be categorized as Class 1, regardless of the numerical total NCSCS score. For the purpose of application of the NCSCS, effects that would be considered severe include observed effects on survival, growth or reproduction which could threaten the viability of a population of ecological receptors at the site. Other evidence that qualifies as severe adverse effects may be determined based on professional judgement and in consultation with the relevant jurisdiction.
6. Are there indicators of significant **adverse effects in the exposure zone** (i.e., the zone in which receptors may come into contact with contaminants)? Some examples are as follows: -Hydrocarbon sheen or NAPL in the exposure zone -Severely stressed biota or devoid of biota; -Presence of material at ground surface or sediment with suspected high concentration of contaminants such as ore tailings, sandblasting grit, slag, and coal tar.	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
7. Do measured concentrations of volatiles or unexploded ordnances represent an **explosion hazard**?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, and do not continue until the safety risks have been addressed. Consult your jurisdiction's occupational health and safety guidance or legislation on exposive hazards and measurement of lower explosive limits.

If none of the above applies, proceed with the NCSCS scoring.

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

Subject Site:	**TC Shoreline Disposal Area**	
Civic Address: *(or other description of location)*	Cambridge Bay Airport, Cambridge Bay, NT	
Site Common Name : *(if applicable)*	TC Shoreline Disposal Area (AEC 2)	
Site Owner or Custodian: *(Organization and Contact Person)*	Governement of Nunavut Shawn Maley (Director, Nunavut Airports) 867-645-8203	
Legal description *or* metes and bounds:	Lot 1004, QUAD77/D2, 79787 CLSR, 2958LTO	
Approximate Site area:	37,500 m2	
PID(s) : *(or Parcel Identification Numbers [PIN] if untitled Crown land)*	N/A	
Centre of site: *(provide latitude/longitude or UTM coordinates)*	Latitude: Longitude:	__69__ degrees __06_ min __32.4__ secs __105_ degrees __08__ min __47.4__ secs
	UTM Coordinate:	
Site Land Use:	Current:	Commercial
	Proposed:	Commercial
Site Plan	**To delineate the bounds of the Site a site plan MUST be attached. The plan must be drawn to scale indicating the boundaries in relation to well-defined reference points and/or legal descriptions. Delineation of the contamination should also be indicated on the site plan.**	
Provide a brief description of the Site:	The shoreline disposal area is along the Cambridge Bay shoreline. It extends for 2km south of the runway, from 300 m southwest of the Fire Fighting Training Area to downgradient of the DND Frontec facility. It had been cleaned up prior to Franz' site visit in 2009. Minor debris (wood, metal drums) were observed along the east end of the shoreline.	

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

Affected media and Contaminants of Potential Concern (COPC):	Affected Media: Soil and groundwater COPC: BTEX, F1-F4, PAH, VOC, Metals, PCBs and Pesticides

Please fill in the "letter" that best describes the level of information available for the site being assessed

Site Letter Grade **C**

If letter grade is F, do not continue, you must have a minimum of a Phase I Environmental Site Assessment or equivalent.

Scoring Completed By:	**Viviane Dubois-Cote**
Date Scoring Completed:	**19-Jan-10**

CCME National Classification System (2008)

(I) Contaminant Characteristics

TC Shoreline Disposal Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method of Evaluation	Notes
1. Residency Media (replaces physical state)				
Which of the following residency media are known (or strongly suspected) to have one or more exceedances of the applicable CCME guidelines? **yes** = has an exceedance or strongly suspected to have an exceedance **no** = does not have an exceedance or strongly suspected not to have an exceedance			The overall score is calculated by adding the individual scores from each residency media (having one or more exceedance of the most conservative media specific and land-use appropriate CCME guideline). Summary tables of the Canadian Environmental Quality Guidelines for soil, water (aquatic life, non-potable groundwater environments, and agricultural water uses) and sediment are available on the CCME website at http://www.ccme.ca/publications/ceqg_rcqe.html?category_id=124. For potable groundwater environments, guidelines for Canadian Drinking Water Quality (for comparison with groundwater monitoring data) are available on the Health Canada website at http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/sum_guide-res_recom/index_e.html.	An increasing number of residency media containing chemical exceedances often equates to a greater potential risk due to an increase in the number of potential exposure pathways.
A. Soil	Yes	Soil has been tested, assessed against CCME guidelines and exceedances found. Groundwater has been tested assessed against BC CSR AW (Marine Life) standards, no exceedances. In the absence of federal guidelines to assess the quality of groundwater at the site, water analytical results were compared against British Columbia Contaminated Sites Regulation (BC CSR) Standards. Standards from BC were selected over other nearby provinces as BC regulations include groundwater discharges to both freshwater and marine receptors. No surface water on site. No sediment on site.		
Yes No Do Not Know				
B. Groundwater	No			
Yes No Do Not Know				
C. Surface water	No			
Yes No Do Not Know				
D. Sediment	No			
Yes No Do Not Know				
"Known" -score	2			
"Potential" - score	---			
2. Chemical Hazard				
What is the relative degree of chemical hazard of the contaminant in the list of hazard rankings proposed by the Federal Contaminated Sites Action Plan (FCSAP)?	High	Copper and As exceedances in soil at two locations. CCME National Classification system (2008) Document, Appendix VI, Table VI.1 - Hazard ranking of contaminants	The relative degree of chemical hazard should be selected based on the most hazardous contaminant known or suspected to be present at the site. The degree of hazard has been defined by the Federal Contaminated Sites Action Plan (FCSAP) and a list of substances with their associated hazard (Low, Medium and High) has been provided as a separate sheet in this file. *See Attached Reference Material for Contaminant Hazard Rankings.*	Hazard as defined in the revised NCS pertains to the physical properties of a chemical which can cause harm. Properties can include toxic potency, propensity to biomagnify, persistence in the environment, etc. Although there is some overlap between hazard and contaminant exceedance factor below, it will not be possible to derive contaminant exceedance factors for many substances which have a designated chemical hazard designation, but don't have a CCME guideline. The purpose of this category is to avoid missing a measure of toxic potential.
High Medium Low Do Not Know				
"Known" -score	8			
"Potential" - score	---			
3. Contaminant Exceedence Factor				
What is the ratio between the measured contaminant concentration and the applicable CCME guidelines (or other "standards")?	Low (1x to 10x	All exceedances localized and <10 X CCME guideline. As at 2-09TP6 (0.2-0.4m) = 40.6 ug/g Cu at 2-09TP5 (GR2) (0.2-0.4m) = 102 ug/g	Ranking of contaminant "exceedance" is determined by comparing contaminant concentrations with the *most conservative media-specific and land-use appropriate CCME* environmental quality guidelines. **Ranking should be based on contaminant with greatest exceedance of CCME guidelines.** Ranking of contaminant hazard as high, medium and low is as follows: High = One or more measured contaminant concentration is greater than 100 X appropriate CCME guidelines Medium = One or more measured contaminant concentration is 10 - 99.99 X appropriate CCME guidelines Low = One or more measured contaminant concentration is 1 - 9.99 X appropriate CCME guidelines Mobile NAPL = Contaminant is a non-aqueous phase liquid (i.e., due to its low solubility, it does not dissolve in water, but remains as a separate liquid) and is present at a sufficiently high saturation (i.e., greater than residual NAPL saturation) such that there is significant potential for mobility either downwards or laterally. Other standards may include local background concentration or published toxicity benchmarks. Results of toxicity testing with site samples can be used as an alternative. This approach is only relevant for contaminants that do not biomagnify in the food web, since toxicity tests would not indicate potential effects at higher trophic levels. High = lethality observed. Medium = no lethality, but sub lethal effects observed. Low = neither lethal nor sub lethal effects observed.	In the event that elevated levels of a material with no associated CCME guidelines are present, check provincial and USEPA environmental criteria. Hazard Quotients (sometimes referred to as a screening quotient in risk assessments) refer to the ratio of measured concentration to the concentration believed to be the threshold for toxicity. A similar calculation is used here to determine the contaminant exceedance factor (CEF). Concentrations greater than one times the applicable CCME guideline (i.e., CEF=>1) indicate that risks are possible. Mobile NAPL has the highest associated score (8) because of its highly concentrated nature and potential for increase in the size of the impacted zone.
Mobile NAPL High (>100x) Medium (10x to 100x) Low (1x to 10x) Do Not Know				
"Known" -score	2			
"Potential" - score	---			

CCME National Classification System (2008)

(I) Contaminant Characteristics

TC Shoreline Disposal Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method of Evaluation	Notes
4. Contaminant Quantity (known or strongly suspected)				
What is the known or strongly suspected quantity of all contaminants? >10 hectare (ha) or 5000 m^3 2 to 10 ha or 1000 to 5000 m^3 <2 ha or 1000 m^3 Do Not Know	2 to 10 ha or 1000 to 5000 m3	Based on Phase II/III ESA conducted by Franz. (Phase II/III Environmental Site Assessment, Cambridge Bay Airport, Cambridge Bay - DRAFT, Franz Environmental Inc. 2010)	Measure or estimate the area or quantity of total contamination (i.e, all contaminants known or strongly suspected to be present on the site). The "Area of Contamination" is defined as the area or volume of contaminated media (soil, sediment, groundwater, surface water) exceeding appropriate environmental criteria.	A larger quantity of a potentially toxic substance can result in a larger frequency of exposure as well as a greater probability of migration, therefore, larger quantities of these substances earn a higher score.
"Known" -score	6			
"Potential" - score	---			
5. Modifying Factors				
Does the chemical fall in the class of persistent chemicals based on its behavior in the environment? Yes No Do Not Know	Yes	CCME National Classification system (2008) Document, Appendix VI, Table VI.2 - Example of persistent substances, identifies Arsenic as a persistent substance in the environment.	Persistent chemicals, e.g., PCBs, chlorinated pesticides etc. either do not degrade or take longer to degrade, and therefore may be available to cause effects for a longer period of time. Canadian Environmental Protection Act (CEPA) classifies a chemical as persistent when it has at least one of the following characteristics: (a) in air, (i) its half-life is equal to or greater than 2 days, or (ii) it is subject to atmospheric transport from its source to a remote area; (b) in water, its half-life is equal to or greater than 182 days; (c) in sediments, its half-life is equal to or greater than 365 days; or (d) in soil, its half-life is equal to or greater than 182 days. This list does not include metals or metalloids, which in their elemental form do not degrade. However metals and metalloids form chemical species in the environment, many of which are not readily bioavailable.	*Examples of Persistent Substances are provided in attached Reference Materials*
Are there contaminants present that could cause damage to utilities and infrastructure, either now or in the future, given their location? Yes No Do Not Know	No			Some contaminants may react or absorb into underground utilities and infrastructure. For example, organic solvents may degrade some plastics, and salts could cause corrosion of metal.
How many different contaminant classes have representative CCME guideline exceedances? one two to four five or more Do Not Know	one	Inorganic substance (metals)	For the purposes of the revised NCS ranking system, the following chemicals represent distinct chemical "classes": inorganic substances (including metals), volatile petroleum hydrocarbons, light extractable petroleum hydrocarbons, heavy extractable petroleum hydrocarbons, PAHs, phenolic substances, chlorinated hydrocarbons, halogenated methanes, phthalate esters, pesticides.	*Refer to the Reference Material sheet for a list of example substances that fall under the various chemical classes.*
"Known" - Score	2			
"Potential" - Score	---			

Contaminant Characteristic Total

Raw Total Scores- "Known"	20
Raw Total Scores- "Potential"	0
Raw Combined Total Scores	20
Total Score (Raw Combined / 40 * 33)	**16.5**

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
1. Groundwater Movement				
A. Known COPC exceedances and an operable groundwater pathway within and/or beyond the property boundary.				
i) For **potable groundwater environments**, 1) groundwater concentrations exceed background concentrations and 1X the Guideline for Canadian Drinking Water Quality (GCDWQ) or 2) there is known contact of contaminants with groundwater, based on physical evidence of groundwater contamination. For **non-potable environments** (typically urban environments with municipal services), 1) groundwater concentrations exceed 1X the applicable non potable guidelines or modified generic guidelines (which exclude ingestion of drinking water pathway) or 2) there is known contact of contaminants with groundwater, based on physical evidence of groundwater impacts.	12	Groundwater wells installed and analytical results for COPCs compared to BC CSR AW (Marine Life) standards. No exceedances found.	Review chemical data and evaluate groundwater quality. The evaluation method concentrates on 1) a potable or non-potable groundwater environment; 2) the groundwater flow system and its potential to be an exposure pathway to known or potential receptors An aquifer is defined as a geologic unit that yields groundwater in usable quantities and drinking water quality. The aquifer can currently be used as a potable water supply or could have the potential for use in the future. Non-potable groundwater environments are defined as areas that are serviced with a reliable alternative water supply (most commonly provided in urban areas). The evaluation of a non-potable environment will be based on a site specific basis. Physical evidence includes significant sheens, liquid phase contamination, or contaminant saturated soils. Seeps and springs are considered part of the groundwater pathway. In Arctic environments, the potability and evaluation of the seasonal active layer (above the permafrost) as a groundwater exposure pathway will be considered on a site-specific basis.	The 1992 NCS rationale evaluated the off-site migration as a regulatory issue. The exposure assessment and classification of hazards should be evaluated regardless of the property boundaries. Someone experienced must provide a thorough description of the sources researched to determine the presence/absence of a groundwater supply source in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resources such as internet links. Note that for potable groundwater that also daylights into a nearby surface water body, the more stringent guidelines for both drinking water and protection of aquatic life should be considered. **Selected References** Potable Environments Guidelines for Canadian Drinking Water Quality: www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/sum_guide-res_recom/index_e.html Non-Potable Environments Canadian Water Quality Guidelines for Protection of Aquatic Life. CCME. 1999 www.ccme.ca Compilation and Review of Canadian Remediation Guidelines, Standards and Regulations. Science Applications International Corporation (SAIC Canada), report to Environment Canada, January 4, 2002.
ii) Same as (i) except the information is not known but strongly suspected based on indirect observations.	9			
iii) Meets GCDWQ for **potable environments**; meets non-potable criteria or modified generic criteria (excludes ingestion of drinking water pathway) for **non-potable environments** **or** Absence of groundwater exposure pathway (i.e., there is no aquifer (see definition at right) at the site or there is an adequate isolating layer between the aquifer and the contamination, and within 5 km of the site there are no aquatic receiving environments and the groundwater does not daylight).	0			
Score	0			
NOTE: If a score is assigned here for Known COPC Exceedances, then you can skip Part B (Potential for groundwater pathway) and go to Section 2 (Surface Water Pathway)				
B. Potential for groundwater pathway.				
a. Relative Mobility High Moderate Low Insignificant Do Not Know	Do Not Know	Not scored	Organics: Koc < 500 (i.e., log Koc < 2.7); Koc = 500 to 5000 (i.e., log Koc = 2.7 to 3.7); Koc = 5,000 to 100,000 (i.e., log Koc = 3.7 to 5); Koc > 100,000 (i.e., log Koc > 5) Metals with higher mobility: pH < 5; pH = 5 to 6; pH > 6 Metals with higher mobility: pH	Reference: US EPA Soil Screening Guidance (Part 5 - Table 39) If a score of zero is assigned for relative mobility, it is still recommended that the following sections on potential for groundwater pathway be evaluated and scored. Although the Koc of an individual contaminant may suggest that it will be relatively immobile, it is possible that, with complex mixtures, there could be enhanced mobility due to co-solvent effects. Therefore, the Koc cannot be relied on solely as a measure of mobility. An evaluation of other factors such as containment, thickness of confining layer, hydraulic conductivities and precipitation infiltration rate are still useful in predicting potential for groundwater migration, even if a contaminant is expected to have insignificant mobility based on its chemistry alone.
Score	2			
b. Presence of engineered sub-surface containment? No containment Partial containment Full containment Do Not Know	Do Not Know	Not scored	Review the existing engineered systems or natural attenuation processes for the site and determine if full or partial containment is achieved. Full containment is defined as an engineered system or natural attenuation processes, monitored as being effective, which provide for full capture and/or treatment of contaminants. All chemicals of concern must be contained for "Full Containment" scoring. Natural attenuation must have sufficient data, and reports cited with monitoring data to support steady state conditions and the attenuation processes. If there is no containment or insufficient natural attenuation process, this category is evaluated as high. If there is less than full containment or if uncertain, then evaluate as medium. In Arctic environments, permafrost will be evaluated, as appropriate, based on detailed evaluations, effectiveness and reliability to contain/control contaminant migration.	Someone experienced must provide a thorough description of the sources researched to determine the containment of the source at the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps, geotechnical reports or natural attenuation studies and other resources such as internet links. **Selected Resources:** United States Environmental Protection Agency (USEPA) 1998. Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater. EPA/600/R-98/128. Environment Canada – Ontario Region – Natural Attenuation Technical Assistance Bulletins (TABS) Number 19 –21.
Score	1.5			
c. Thickness of confining layer over aquifer of concern or groundwater exposure pathway 3 m or less including no confining layer or discontinuous confining layer 3 to 10 m > 10 m Do Not Know	Do Not Know	Not scored	The term "confining layer" refers to geologic material with little or no permeability or hydraulic conductivity (such as unfractured clay); water does not pass through this layer or the rate of movement is extremely slow. Measure the thickness and extent of materials that will impede the migration of contaminants to the groundwater exposure pathway. The evaluation of this category is based on: 1) The presence and thickness of saturated subsurface materials that impede the vertical migration of contaminants to lower aquifer units which can or are used as drinking water sources or 2) The presence and thickness of unsaturated subsurface materials that impede the vertical migration of contaminants from the source location to the saturated zone (e.g., water table aquifer, first hydrostratigraphic unit or other groundwater	
Score	0.5			
d. Hydraulic conductivity of confining layer >10^{-4} cm/s or no confining layer 10^{-4} to 10^{-6} cm/s <10^{-6} cm/s Do Not Know	Do Not Know	Not scored	Determine the nature of geologic materials and estimate hydraulic conductivity from published material (or use "Range of Values of Hydraulic Conductivity and Permeability" figure in the Reference Material sheet). Unfractured clays should be scored low. Silts should be scored medium. Sand, gravel should be scored high. The evaluation of this category is based on: 1) The presence and hydraulic conductivity ("K") of saturated subsurface materials that impede the vertical migration of contaminants to lower aquifer units which can or are used as a drinking water source, groundwater exposure pathway or 2) The presence and permeability ("k") of unsaturated subsurface materials that	
Score	0.5			

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for groundwater pathway.				
e. Precipitation infiltration rate (Annual precipitation factor x surface soil relative permeability factor) High Moderate Low Very Low None Do Not Know	Do Not Know	Not scored	Precipitation Refer to Environment Canada precipitation records for relevant areas. Divide annual precipitation by 1000 and round to nearest tenth (e.g., 667 mm = 0.7 score). Permeability For surface soil relative permeability (i.e., infiltration) assume: gravel (1), sand (0.6), loam (0.3) and pavement or clay (0). Multiply the surface soil relative permeability factor with precipitation factor to obtain the score for precipitation infiltration rate.	
Score	0.4			
f. Hydraulic conductivity of aquifer $>10^{-2}$ cm/s 10^{-2} to 10^{-4} cm/s $<10^{-4}$ cm/s Do Not Know	Do Not Know	Not scored	Determine the nature of geologic materials and estimate hydraulic conductivity of all aquifers of concern from published material (refer to "Range of Values of Hydraulic Conductivity and Permeability" in the Reference Material sheet).	
Score	1			
Potential groundwater pathway total	5.9			
Allowed Potential score	---	Note: If a "known" score is provided, the "potential" score is disallowed.		
Groundwater pathway total	**0**			
2. Surface Water Movement				
A. Demonstrated migration of COPC in surface water above background conditions				
Known concentrations of surface water: i) Concentrations exceed background concentrations and exceed CCME CWQG for protection of aquatic life, irrigation, livestock water, and/or recreation (whichever uses are applicable at the site) by >1 X; or There is known contact of contaminants with surface water based on site observations. or In the absence of CWQG, chemicals have been proven to be toxic based on site specific testing (e.g. toxicity testing; or other indicator testing of exposure).	12		Collect all available information on quality of surface water near to site. Evaluate available data against Canadian Water Quality Guidelines (select appropriate guidelines based on local water use, e.g., recreation, irrigation, aquatic life, livestock watering, etc.). The evaluation method concentrates on the surface water flow system and its potential to be an exposure pathway. Contamination is present on the surface (above ground) and has the potential to impact surface water bodies. Surface water is defined as a water body that supports one of the following uses: recreation, irrigation, livestock watering, aquatic life.	General Notes: Someone experienced must provide a thorough description of the sources researched to classify the surface water body in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resource such as internet links. Selected References: CCME. 1999. Canadian Water Quality Guidelines for the Protection of Aquatic Life www.ccme.ca CCME. 1999. Canadian Water Quality Guidelines for the Protection of Agricultural Water Uses (Irrigation and Livestock Water) www.ccme.ca Health and Welfare Canada. 1992. Guidelines for Canadian Recreational Water Quality.
ii) Same as (i) except the information is not known but strongly suspected based on indirect observations.	8			
iii) Meets CWQG or absence of surface water exposure pathway (i.e., Distance to nearest surface water is > 5 km.)	0			
Score	Go to Potentia ---			
NOTE: If a score is assigned here for Demonstrated Migration in Surface Water, then you can skip Part B (Potential for migration of COPCs in surface water) and go to Section 3 (Surface Soils)				
B. Potential for migration of COPCs in surface water				
a. Presence of containment No containment Partial containment Full containment Do Not Know	No containmer		Review the existing engineered systems and relate these structures to site conditions and proximity to surface water and determine if full containment is achieved: score low if there is full containment such as capping, berms, dikes; score medium if there is partial containment such as natural barriers, trees, ditches, sedimentation ponds; score high if there are no intervening barriers between the site and nearby surface water. Full containment must include	
Score	5			
b. Distance to Surface Water 0 to <100 m 100 - 300 m >300 m Do Not Know	0 to <100 m	Cambridge Bay abuts the site to the South.	Review available mapping and survey data to determine distance to nearest surface water	
Score	3			

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

TC Shoreline Disposal Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
c. Topography Contaminants above ground level and slope is steep Contaminants at or below ground level and slope is steep Contaminants above ground level and slope is intermediate Contaminants at or below ground level and slope is intermediate Contaminants above ground level and slope is flat Contaminants at or below ground level and slope is flat Do Not Know	At/below and ste		Review engineering documents on the topography of the site and the slope of surrounding terrain. Steep slope = >50% Intermediate slope = between 5 and 50% Flat slope = < 5% Note: Type of fill placement (e.g., trench, above ground, etc.).	
Score	1.5			
d. Run-off potential High (rainfall run-off score > 0.6) Moderate (0.4 < rainfall run-off score <0.6) Low (0.2 < rainfall run-off score <0.4) Very Low (0 < rainfall run-off score < 0.2) None (rainfall run-off score = 0) Do Not Know	Very Low (0 < rainfall run-	Annual precipitation 138.8 mm (Environment Canada website) and sand observed onsite (Franz 2010).	Rainfall Refer to Environment Canada precipitation records for relevant areas. Divide rainfall by 1000 and round to nearest tenth (e.g., 667 mm = 0.7 score). The former definition of "annual rainfall" did not include the precipitation as snow. This minor adjustment has been made. The second modification was the inclusion of permeability of surface materials as an evaluation factor. Permeability For infiltration assume: gravel (0), sand (0.3), loam (0.6) and pavement or clay (1).	Selected Sources: Environment Canada web page link: www.msc.ec.gc.ca Snow to rainfall conversion apply ratio of 15 (snow):1(water)
Score	0.4			
e. Flood potential 1 in 2 years 1 in 10 years 1 in 50 years Do Not Know			Review published data such as flood plain mapping or flood potential (e.g., spring or mountain run-off) and Conservation Authority records to evaluate flood potential of nearby water courses both up and down gradient. Rate zero if site not in flood plain.	
Score	0.5			
Potential surface water pathway total	10.4			
Allowed Potential score	10.4	Note: If a "known" score is provided, the "potential" score is disallowed.		
Surface water pathway total	**10.4**			
3. Surface Soils (potential for dust, dermal and ingestion exposure)				
A. Demonstrated concentrations of COPC in surface soils (top 1.5 m)				
COPCs measured in surface soils exceed the CCME soil quality guideline. Strongly suspected that soils exceed guidelines COPCs in surface soils does not exceed the CCME soil quality guideline or is not present (i.e., bedrock).	12 9 0	Copper and arsenic exceedances of CCME guidelines in soil.	Collect all available information on quality of surface soils (i.e., top 1.5 metres) at the site. Evaluate available data against Canadian Soil Quality Guidelines. Select appropriate guidelines based on current (or proposed future) land use (i.e, agricultural, residential/parkland, commercial, or industrial), and soil texture if applicable (i.e., coarse or fine).	Selected References: CCME. 1999. Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health www.ccme.ca
	12			
Score	12			
NOTE: If a score is assigned here for Demonstrated Concentrations in Surface Soils, then you can skip Part B (Potential for a surface soils migration pathway) and go to Section 4 (Vapour)				
B. Potential for a surface soils (top 1.5 m) migration pathway				
a. Are the soils in question covered? Exposed Vegetated Landscaped Paved Do Not Know		Not scored	Consult engineering or risk assessment reports for the site. Alternatively, review photographs or perform a site visit. Landscaped surface soils must include a minimum of 0.5 m of topsoil.	The possibility of contaminants in blowing snow have not been included in the revised NCS as it is difficult to assess what constitutes an unacceptable concentration and secondly, spills to snow or ice are most efficiently mitigated while freezing conditions remain.
	Do Not Know			
Score	4			
b. For what proportion of the year does the site remain covered by snow? 0 to 10% of the year 10 to 30% of the year More than 30% of the year Do Not Know		Not scored	Consult climatic information for the site. The increments represent the full span from soils which are always wet or covered with snow (and therefore less likely to generate dust) to those soils which are predominantly dry and not covered by snow (and therefore are more likely to generate dust).	
	Do Not Know			
Score	3			
Potential surface soil pathway total	7			
Allowed Potential score	---	**Note: If a "known" score is provided, the "potential" score is disallowed.**		
Soil pathway total	**12**			

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

TC Shoreline Disposal Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
4. Vapour				
A. Demonstrated COPCs in vapour.				
Vapour has been measured (indoor or outdoor) in concentrations exceeding risk based concentrations.	12	Not assessed	Consult previous investigations, including human health risk assessments, for reports of vapours detected.	
Strongly suspected (based on observations and/or modelling)	9			
Vapour has not been measured and volatile hydrocarbons have not been found in site soils or groundwater.	0			
Score	Go to Potentia ---			
NOTE: If a score is assigned here for Demonstrated COPCs in Vapour, then you can skip Part B (Potential for COPCs in vapour) and go to Section 5 (Sediment)				
B. Potential for COPCs in vapour				
a. Relative Volatility based on Henry's Law Constant, H' (dimensionless) High (H' > 1.0E-1) Moderate (H' = 1.0E-1 to 1.0E-3) Low (H' < 1.0E-3) Not Volatile Do Not Know		Arsenic and Copper not volatile	Reference: US EPA Soil Screening Guidance (Part 5 - Table 36) *Provided in Attached Reference Materials*	If the Henry's Law Constant for a substance indicates that it is not volatile, and a score of zero is assigned here for relative volatility, then the other three questions in this section on Potential for COPCs will be automatically assigned scores of zero and you can skip to section 5.
	Not Volatile			
Score	0			
b. What is the soil grain size? Fine Coarse Do Not Know		Sand and chipped rock observed onsite during investigation (Franz 2010)	Review soil permeability data in engineering reports. The greater the permeability of soils, the greater the possible movement of vapours. Fine-grained soils are defined as those which contain greater than 50% by mass particles less than 75 µm mean diameter (D50 < 75 µm). Coarse-grained soils are defined as those which contain greater than 50% by mass particles greater than 75 µm mean diameter (D50 > 75 µm).	
	Coarse			
Score	0			
c. Is the depth to the source less than 10m? Yes No Do Not Know		Exceedances found in samples collected at 0.2-0.6m (2-09TP-5 and 2-09TP-6)	Review groundwater depths below grade for the site.	
	Yes			
Score	0			
d. Are there any preferential pathways? Yes No Do Not Know		No	Visit the site during dry summer conditions and/or review available photographs. Where bedrock is present, fractures would likely act as preferential pathyways.	Preferential pathways refer to areas where vapour migration is more likely to occur because there is lower resistance to flow than in the surrounding materials. For example, underground conduits such as sewer and utility lines, drains, or septic systems may serve as preferential pathways. Features of the building itself that may also be preferential pathways include earthen floors, expansion joints, wall cracks, or foundation perforations for subsurface features such as utility pipes, sumps, and drains.
	No			
Score	0			
Potential vapour pathway total	0			
Allowed Potential score	0	Note: If a "known" score is provided, the "potential" score is disallowed.		
Vapour pathway total	**0**			
5. Sediment Movement				
A. Demonstrated migration of sediments containing COPCs				
There is evidence to suggest that sediments originally deposited to the site (exceeding the CCME sediment quality guidelines) have migrated.	12	Strongly suspected that sediments originally deposited to the site have migrated, based on proximity to the shore (Cambridge Bay abuts the Site)	Review sediment assessment reports. Evidence of migration of contaminants in sediments must be reported by someone experienced in this area.	Usually not considered a significant concern in lakes/marine environments, but could be very important in rivers where transport downstream could be significant.
Strongly suspected (based on observations and/or modelling)	9			
Sediments have been contained and there is no indication that sediments will migrate in future. **or** Absence of sediment exposure pathway (i.e., within 5 km of the site there are no aquatic receiving environments, and therefore no sediments).	0			
	9			
Score	9			
NOTE: If a score is assigned here for Demonstrated Migration of Sediments, then you can skip Part B (Potential for Sediment Migration) and go to Section 6 (Modifying Factors)				

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

TC Shoreline Disposal Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for sediment migration				
a. Are the sediments having COPC exceedances capped with sediments having no exceedances ("clean sediments")?	Do Not Know		Review existing sediment assessments. If sediment coring has been completed, it may indicate that historically contaminated sediments have been covered over by newer "clean" sediments. This assessment will require that cores collected demonstrate a low concentration near the top and higher concentration with sediment depth.	
Yes				
No				
Do Not Know	2			
b. For lakes and marine habitats, are the contaminated sediments in shallow water and therefore likely to be affected by tidal action, wave action or propeller wash?	Do Not Know	Not scored	Review existing sediment assessments. If the sediments present at the site are in a river, select "no" for this question.	
Yes				
No				
Do Not Know	2			
c. For rivers, are the contaminated sediments in an area prone to sediment scouring?	Do Not Know		Review existing sediment assessments. It is important that the assessment is made under worst case flows (high yearly flows). Under high yearly flows, areas	
Yes				
No				
Do Not Know	2			
Potential sediment pathway total	6			
Allowed Potential score	---	Note: If a "known" score is provided, the "potential" score is disallowed.		
Sediment pathway total	**9**			
6. Modifying Factors				
Are there subsurface utility conduits in the area affected by contamination?	No		Consult existing engineering reports. Subsurface utilities can act as conduits for contaminant migration.	
Yes				
No				
Do Not Know				
Known	0			
Potential	0			

Migration Potential Total		
Raw "known" total	21	
Raw "potential" total	10.4	Note: If "Known" and "Potential" scores are provided, the checklist defaults to known.
Raw combined total	31.4	Therefore, the total "Potential" Score may not reflect the sum of the individual "Potential"
Total (max 33)	**16.2**	scores.

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

TC Shoreline Disposal Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
1. Human				
A. Known exposure				
Documented adverse impact or high quantified exposure which has or will result in an adverse effect, injury or harm or impairment of the safety to humans as a result of the contaminated site. (Class 1 Site*)	22	No human activity onsite	*Where adverse effects on humans are documented, the site should be automatically designated as a Class 1 site (i.e., action required). There is no need to proceed through the NCS in this case. However, a scoring guideline (22) is provided in case a numerical score for the site is still desired (e.g., for comparison with other Class 1 sites). This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients >1 for noncarcinogenic chemicals and incremental cancer risks that exceed acceptable levels defined by the jurisdiction for carcinogenic chemicals (for most jurisdictions this is typically either $>10^{-5}$ or $>10^{-6}$). Known impacts can also be evaluated based on blood testing (e.g. blood lead >10 ug/dL) or other health based testing. This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients of less than 0.2 for non-carcinogenic chemicals and incremental lifetime cancer risks for carcinogenic chemicals that are within acceptable levels as defined by the jurisdiction (for most jurisdictions this is less than either 10^{-6} or 10^{-5}).	Known adverse impact includes domestic and traditional food sources. Adverse effects based on food chain transfer to humans and/or animals can be scored in this category. However, the weight of evidence must show a direct link of a contaminated food source/supply and subsequent ingestion/transfer to humans. Any associated adverse effects to the environment are scored separately later in this worksheet. Someone experienced must provide a thorough description of the sources researched to evaluate and determine the quantified exposure/impact (adverse effect) in the vicinity of the contaminated site. **Selected References:** Health Canada – Federal Contaminated Site Risk Assessment in Canada Parts 1 and 2 Guidance on Human Heath Screening Level Risk Assessments (www.hc-sc.gc.ca/ewh-semt/pubs/contamsite/index_e.html) United States Environmental Protection Agency, Integrated Risk Information System (IRIS) -http://toxnet.nml.nih.gov
Same as above, but "Strongly Suspected" based on observations or indirect evidence.	10			
No quantified or suspected exposures/impacts in humans.	0			
	Go to Potential			
Score	---			
NOTE: If a score is assigned here for Known Exposure, then you can skip Part B (Potential for Human Exposure) and go to Section 2 (Human Exposure Modifying Factors)				
B. Potential for human exposure				
a) Land use (provides an indication of potential human exposure scenarios) Agricultural Residential / Parkland Commercial Industrial Do Not Know		Site is on airport lands.	Review zoning and land use maps over the distances indicated. If the proposed future land use is more "sensitive" than the current land use, evaluate this factor assuming the proposed future use is in place Agricultural land use is defined as uses of land where the activities are related to the productive capability of the land or facility (e.g., greenhouse) and are agricultural in nature, or activities related to the feeding and housing of animals as livestock. Residential/Parkland land uses are defined as uses of land on which dwelling on a permanent, temporary, or seasonal basis is the activity (residential), as well as uses on which the activities are recreational in nature and require the natural or human designed capability of the land to sustain that activity (parkland). Commercial/Industrial land uses are defined as land on which the activities are related to the buying, selling, or trading of merchandise or services (commercial), as well as land uses which are related to the production, manufacture, or storage of materials (industrial).	This is the main "receptor" factor used in site scoring. A higher score implies a greater exposure and/or exposure of more sensitive human receptors (e.g., children).
	Commercial			
Score	1			
b. Indicate the level of accessibility to the contaminated portion of the site (e.g., the potential for coming in contact with contamination) Limited barriers to prevent site access; contamination not covered Moderate access or no intervening barriers, contaminants are covered. Remote locations in which contaminants not covered. Controlled access or remote location and contaminants are covered Do Not Know			Review location and structures and contaminants at the site and determine if there are intervening barriers between the site and humans. A low rating should be assigned to a (covered) site surrounded by a fence or in a remote location, whereas a high score should be assigned to a site that has no cover, fence, natural barriers or buffer.	
	Access, not covered			
Score	2			
B. Potential for human exposure				
c) Potential for intake of contaminated soil, water, sediment or foods for operable or potentially operable pathways, as identified in Worksheet II (Migration Potential). i) direct contact Is dermal contact with contaminated surface water, groundwater, sediments or soils anticipated? Yes No Do Not Know		Dermal contact could occur but unlikely as the site is in an area at the airport where no activities occur	If soils or potable groundwater are present exceeding their respective CCME guidelines, dermal contact is assumed. Exposure to surface water, non-potable groundwater or sediments exceeding their respective CCME guidelines will depend on the site. Select "Yes" if dermal exposure to surface water, non-potable groundwater or sediments is expected. For instance, dermal contact with sediments would not be expected in an active port. Only soils in the top 1.5 m are defined by CCME (2003) as surface soils. If contaminated soils are only located deeper than 1.5 m, direct contact with soils is not anticipated to be an operable contaminant exposure pathway.	Exposure via the skin is generally believed to be a minor exposure route. However for some organic contaminants, skin exposure can play a very important component of overall exposure. Dermal exposure can occur while swimming in contaminated waters, bathing with contaminated surface water/groundwater and digging in contaminated dirt, etc.
	Yes			
Score	3			
ii) inhalation (i.e., inhalation of dust, vapour) Vapour - Are there inhabitable buildings on the site within 30 m of soils or groundwater with volatile contamination as determined in Worksheet II (Migration Potential)? Yes No Do Not Know		No volatile contamination found.	If inhabitable buildings are on the site within 30 m of soils or groundwater exceeding their respective guidelines for volatile chemicals, there is a potential of risk to human health (Health Canada, 2004). Review site investigations for location of soil samples (having exceedances of volatile substances) relative to buildings. Refer to (II) Migration Potential worksheet, 4B.a),*Potential for COPCs in Vapour* for a definition of volatility.	Exposure via the lungs (inhalation) can be a very important exposure pathway. Inhalation can be via both particulates (dust) and gas (vapours). Vapours can be a problem where buildings have been built on former industrial sites or where volatile contaminants have migrated below buildings resulting in the potential for vapour intrusion. Assesses the potential for humans to be exposed to vapours originating from site soils. The closer the receptor is to a source of volatile chemicals in soil, the greater the potential of exposure. Also, coarser-grained soil will convey vapour much more efficiently in the soil than finer grained material such as clays and silts. General Notes; Someone experienced must provide a thorough description of the sources researched to determine the presence/absence of a vapour migration and/or dust generation in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resource such as internet links. Selected References; Canadian Council of Ministers of the Environment (CCME). 2006. Protocol for the Derivation of Environmental and Human Health Soil Quality Guidelines. PN 1332. www.ccme.ca Golder, 2004. Soil Vapour Intrusion Guidance for Health Canada Screening Level Risk Assessment (SLRA) Submitted to Health Canada, Burnaby, BC
	No			
Score	0			
Dust - If there is contaminated surface soil (e.g. top 1.5 m) , indicate whether the soil is fine or coarse textured. If it is known that surface soil is not contaminated, enter a score of zero. Fine Coarse Surface soil is not contaminated or absent (bedrock) Do Not Know Texture			Consult grain size data for the site. If soils (containing exceedances of the CCME soil quality guidelines) predominantly consist of fine material (having a median grain size of 75 microns; as defined by CCME (2006)) then these soils are more likely to generate dusts.	
	Coarse			
	1			
inhalation total	1			

CCME National Classification System (2008)

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

TC Shoreline Disposal Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for human exposure				
iii) Ingestion (i.e., ingestion of food items, water and soils [for children]), including traditional foods.			Review available site data to determine if drinking water (groundwater, surface water, private, commercial or municipal supply) is known or suspected to be contaminated above Guidelines for Canadian Drinking Water Quality. If drinking water supply is known to be contaminated, some immediate action (e.g., provision of alternate drinking water supply) should be initiated to reduce or eliminate exposure. The evaluation of significant potential for exceedances of the water supply in the future may be based on the capture zones of the drinking water wells; contaminant travel times; computer modelling of flow and contaminant transport.	**Selected References:** Guidelines for Canadian Drinking Water Quality: www.hc-sc.gc.ca/hecs-sesc/water/publications/drinking_water_quality_guidelines/toc.htm Drinking water can be an extremely important exposure pathway to humans. If site groundwater or surface water is not used for drinking, then this pathway is considered to be inoperable. Consider both wild foods such as salmon, venison, caribou, as well as agricultural sources of food items if the contaminated site is on or adjacent to agricultural land uses.
Drinking Water: Choose a score based on the proximity to a drinking water supply, to indicate the potential for contamination (present or future).				
0 to 100 m				
100 to 300 m				
300 m to 1 km				
1 to 5 km				
No drinking water present				
Do Not Know				
	No drinking water presen			
Score	0			
Is an alternative water supply readily available?				
Yes				
No		Water is supplied by truck		
Do Not Know	Yes			
Score	0			
Is human ingestion of contaminated soils possible?			If contaminated soils are located within the top 1.5 m, it is assumed that ingestion of soils is an operable exposure pathway. Exposure to soils deeper than 1.5 m is possible, but less likely, and the duration is shorter. Refer to human health risk assessment reports for the site in question.	
Yes				
No				
Do Not Know	Yes			
Score	3	Ingestion could occur but unlikely as the site is in an area at the airport where no activities occur		
Are food items consumed by people, such as plants, domestic animals or wildlife harvested from the contaminated land and its surroundings?			Use human health risk assessment reports (or others) to determine if there is significant reliance on traditional food sources associated with the site. Is the food item in question going to spend a large proportion of its time at the site (e.g., large mammals may spend a very small amount of time at a small contaminated site)? Human health risk assessment reports for the site in question will also provide information on potential bioaccumulation of the COPC in question.	
Yes				
No				
Do Not Know	Yes			
Score	1			
Ingestion total	4			
Human Health Total "Potential" Score	11	Note if a "Known" Human Health score is provided, the "Potential" score is disallowed.		
Allowed "Potential" Score	11			
2. Human Exposure Modifying Factors				
a) Strong reliance of local people on natural resources for survival (i.e., food, water, shelter, etc.)	Yes			
Yes				
No				
Do Not Know				
Known	6			
Potential	---			
Raw Human "known" total	6			
Raw Human "potential" total	11			
Raw Human Exposure Total Score	17			
Human Health Total (max 22)	**17.0**			
3. Ecological				
A. Known exposure				
Documented adverse impact or high quantified exposure which has or will result in an adverse effect, injury or harm or impairment of the safety to terrestrial or aquatic organisms as a result of the contaminated site.	18		Some low levels of impact to ecological receptors are considered acceptable, particularly on commercial and industrial land uses. However, if ecological effects are deemed to be severe, the site may be categorized as class one (i.e., a priority for remediation or risk management), regardless of the numerical total NCS score. For the purpose of application of the NCS, effects that would be considered severe include observed effects on survival, growth or reproduction which could threaten the viability of a population of ecological receptors at the site. Other evidence that qualifies as severe adverse effects may be determined based on professional judgement and in consultation with the relevant jurisdiction. ecological effects are determined to be severe and an automatic Class 1 is assigned, there is no need to proceed through the NCS. However, a scoring guideline (18) is provided in case a numerical score for the site is still desired (e.g., for comparison with other Class 1 sites).	CCME, 1999: Canadian Water Quality Guidelines for the Protection of Aquatic Life. www.ccme.ca CCME, 1999: Canadian Water Quality Guidelines for the Protection of Agricultural Water Uses. www.ccme.ca Sensitive receptors- review: Canadian Council on Ecological Areaswww.ccea.org. Ecological effects should be evaluated at a population or community level, as opposed to at the level of individuals. For example, population-level effects could include reduced reproduction, growth or survival in a species. Community-level effects could include reduced species diversity or relative abundances. Further discussion of ecological assessment endpoints is provided in *A Framework for Ecological Risk Assessment: General Guidance* (CCME 1996). Notes: Someone experienced must provide a thorough description of the sources researched to classify the environmental receptors in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resource such as internet links.
Same as above, but "Strongly Suspected" based on observations or indirect evidence.	12		This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients >1. Alternatively, known impacts can also be evaluated based on a weight of evidence assessment involving a combination of site observations, tissue testing, toxicity testing and quantitative community assessments. Scoring of adverse effects on individual rare or endangered species will be completed on a case-by-case basis with full scientific justification.	
No quantified or suspected exposures/impacts in terrestrial or aquatic organisms	0		This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients of less than 1 and no other observable or measurable sign of impacts. Alternatively, it can be based on a combination of other lines of evidence showing no adverse effects, such as site observations, tissue testing, toxicity testing and quantitative community assessments.	
	Go to Potential			
Score	---			
NOTE: If a score is assigned here for Known Exposure, then you can skip Part B (Potential for Ecological Exposure) and go to Section 4 (Ecological Exposure Modifying Factors)				

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

TC Shoreline Disposal Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for ecological exposure (for the contaminated portion of the site)				
a) Terrestrial i) Land use Agricultural (or Wild lands) Residential/Parkland Commercial Industrial Do Not Know	Commercial	Site is a portion of airport lands.	Review zoning and land use maps. If the proposed future land use is more "sensitive" than the current land use, evaluate this factor assuming the proposed future use is in place (indicate in the worksheet that future land use is the consideration). Agricultural land use is defined as uses of land where the activities are related to the productive capability of the land or facility (e.g., greenhouse) and are agricultural in nature, or activities related to the feeding and housing of animals as livestock. Wild lands are grouped with agricultural land due to the similarities in receptors that would be expected to occur there (e.g., herbivorous mammals and birds) and the similar need for a high level of protection to ensure ecological functioning. Residential/Parkland land uses are defined as uses of land on which dwelling on a permanent, temporary, or seasonal basis is the activity (residential), as well as uses on which the activities are recreational in nature and require the natural or human designed capability of the land to sustain that activity (parkland). Commercial/Industrial land uses are defined as land on which the activities are related to the buying, selling, or trading of merchandise or services (commercial), as well as land uses which are related to the production, manufacture, or storage of materials (industrial).	
Score	1			
ii) Uptake potential Direct Contact - Are plants and/or soil invertebrates likely exposed to contaminated soils at the site? Yes No Do Not Know	Yes	Grass on site	If contaminated soils are located within the top 1.5 m, it is assumed that direct contact of soils with plants and soil invertebrates is an operable exposure pathway. Exposure to soils deeper than 1.5 m is possible, but less likely.	
Score	1			
iii) Ingestion (i.e., wildlife or domestic animals ingesting contaminated food items, soils or water) Are terrestrial animals likely to be ingesting contaminated water at the site? Yes No Do Not Know	No	Airport - restricted access	Refer to an Ecological Risk Assessment for the site. If there is contaminated surface water at the site, assume that terrestrial organisms will ingest it.	
Score	0			
Are terrestrial animals likely to be ingesting contaminated soils at the site? Yes No Do Not Know	No	Airport - restricted access	Refer to an Ecological Risk Assessment report. Most animals will co-ingest some soil while eating plant matter or soil invertebrates.	
Score	0			
Can the contamination identified bioaccumulate? Yes No Do Not Know	Yes	http://www.inchem.org/documents/ehc/ehc/ehc224.htm (As) http://www.inchem.org/documents/ehc/ehc/ehc200.htm (Cu)	Bioaccumulation of contaminants within food items is considered possible if: 1) The Log(Kow) of the contaminant is greater than 4 (as per the chemical characteristics work sheet) and concentrations in soils exceed the most conservative CCME soil quality guideline for the intended land use, or 2) The contaminant in collected tissue samples exceeds the Canadian Tissue Residue Guidelines.	
Score	1			
Distance to sensitive terrestrial ecological area 0 to 300 m 300 m to 1 km 1 to 5 km > 5 km Do Not Know	Do Not Know		It is considered that within 300 m of a site, there is a concern for contamination. Therefore an environmental receptor located within this area of the site will be subject to further evaluations. It is also considered that any environmental receptor located greater than 5 km will not be a concern for evaluation. Review Conservation Authority mapping and literature including Canadian Council on Ecological Areas link: www.ccea.org.	Environmental receptors include: local, regional or provincial species of interest or significance; arctic environments (on a site specific basis); nature preserves, habitats for species at risk, sensitive forests, natural parks or forests.
Score	1.5			
Raw Terrestrial Total Potential	4.5	Note if a "Known" Ecological Effects score is provided, the "Potential" score is disallowed.		
Allowed Terrestrial Total Potential	4.5			
B. Potential for ecological exposure (for the contaminated portion of the site)				
b) Aquatic i) Classification of aquatic environment Sensitive Typical Not Applicable (no aquatic environment present) Do Not Know	Sensitive		"Sensitive aquatic environments" include those in or adjacent to shellfish or fish harvesting areas, marine parks, ecological reserves and fish migration paths. Also includes those areas deemed to have ecological significance such as for fish food resources, spawning areas or having rare or endangered species. "Typical aquatic environments" include those in areas other than those listed above.	
Score	3			
ii) Uptake potential Does groundwater daylighting to an aquatic environment exceed the CCME water quality guidelines for the protection of aquatic life at the point of contact? Yes No (or Not Applicable) Do Not Know	Do Not Know	No groundwater exceedances on site	Groundwater concentrations of contaminants at the point of contact with an aquatic receiving environment can be estimated in three ways: 1) by comparing collected nearshore groundwater concentrations to the CCME water quality guidelines (this will be a conservative comparison, as contaminant concentrations in groundwater often decrease between nearshore wells and the point of discharge). 2) by conducting groundwater modeling to estimate the concentration of groundwater immediately before discharge. 3) by installing water samplers, "peepers", in the sediments in the area of daylighting groundwater.	
Score	0.5			
Distance from the contaminated site to an important surface water resource 0 to 300 m 300 m to 1 km 1 to 5 km > 5 km Do Not Know	0 to 300 m		It is considered that within 300 m of a site, there is a concern for contamination. Therefore an environmental receptor or important water resource located within this area of the site will be subject to further evaluation. It is also considered that any environmental receptor located greater than 5 km away will not be a concern for evaluation. Review Conservation Authority mapping and literature including Canadian Council on Ecological Areas link:www.ccea.org.	Environmental receptors include: local, regional or provincial species of interest or significance, sensitive wetlands and fens and other aquatic environments.
Score	3			
Are aquatic species (i.e., forage fish, invertebrates or plants) that are consumed by predatory fish or wildlife consumers, such as mammals and birds, likely to accumulate contaminants in their tissues? Yes No Do Not Know	Yes		Bioaccumulation of food items is possible if: 1) The Log(Kow) of the contaminant is greater than 4 (as per the chemical characteristics work sheet) and concentrations in sediments exceed the CCME ISQGs. 2) The contaminant in collected tissue samples exceeds the CCME tissue quality guidelines.	
Score	1			
Raw Aquatic Total Potential	7.5	Note if a "Known" Ecological Effects score is provided, the "Potential" score is disallowed.		
Allowed Aquatic Total Potential	7.5			

CCME National Classification System (2008)

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

TC Shoreline Disposal Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
4. Ecological Exposure Modifying Factors				
a) Known occurrence of a species at risk. Is there a potential for a species at risk to be present at the site? Yes No Do Not Know	 No	http://www.sis.ec.gc.ca/ec_species/ec_species_e.phtml	Consult any ecological risk assessment reports. If information is not present, utilize on-line databases such as Eco Explorer. Regional, Provincial (Environment Ministries), or Federal staff (Fisheries and Oceans or Environment Canada) should be able to provide some guidance.	Species at risk include those that are extirpated, endangered, threatened, or of special concern. For a list of species at risk, consult Schedule 1 of the federal Species at Risk Act (http://www.sararegistry.gc.ca/species/schedules_e.cfm?id=1). Many provincial governments may also provide regionally applicable lists of species at risk. For example, in British Columbia, consult: BCMWLAP. 2005. Endangered Species and Ecosystems in British Columbia. Provincial red and blue lists. Ministry of Sustainable Resource Management and Water, Land and Air Protection.http://srmwww.gov.bc.ca/atrisk/red-blue.htm
Score	0 ---			
b) Potential impact of aesthetics (e.g., enrichment of a lake or tainting of food flavor). Is there evidence of aesthetic impact to receiving water bodies? Yes No Do Not Know	 No 0 ---		Documentation may consist of environmental investigation reports, press articles, petitions or other records.	This Item will require some level of documentation by user, including contact names, addresses, phone numbers, e-mail addresses. Evidence of changes must be documented, please attach copy of report containing relevant information.
Is there evidence of olfactory impact (i.e., unpleasant smell)? Yes No Do Not Know	No 0 ---		Examples of olfactory change can include the smell of a COPC or an increase in the rate of decay in an aquatic habitat.	
Is there evidence of increase in plant growth in the lake or water body? Yes No Do Not Know	No 0 ---		A distinct increase of plant growth in an aquatic environment may suggest enrichment. Nutrients e.g., nitrogen or phosphorous releases to an aquatic body can act as a fertilizer.	
Is there evidence that fish or meat taken from or adjacent to the site smells or tastes different? Yes No Do Not Know	No 0 ---		Some contaminants can result in a distinctive change in the way food gathered from the site tastes or smells.	
Ecological Modifying Factors Total - Known	**0**			
Ecological Modifying Factors Total - Potential	**---**			
Raw Ecological Total - Known	0			
Raw Ecological Total - Potential	12			
Raw Ecological Total	12			
Ecological Total (Max 18)	**12.0**			
5. Other Potential Contaminant Receptors				
a) Exposure of permafrost (leading to erosion and structural concerns) Are there improvements (roads, buildings) at the site dependant upon the permafrost for structural integrity? Yes No Do Not Know	 No 0 ---	Site vacant	Consult engineering reports, site plans or air photos of the site. When permafrost melts, the stability of the soil decreases, leading to erosion. Human structures, such as roads and/or buildings are often dependent on the stability that the permafrost provides.	Plants and lichens provide a natural insulating layer which will help prevent thawing of the permafrost during the summer. Plants and lichens may also absorb less solar radiation. Solar radiation is turned into heat which can also cause underlying permafrost to melt.
Is there a physical pathway which can transport soils released by damaged permafrost to a nearby aquatic environment? Yes No Do Not Know	Yes 2 ---	Cambridge Bay adjacent to the Site	Melting permafrost leads to a decreased stability of underlying soils. Wind or surface run-off erosion can carry soils into nearby aquatic habitats. The increased soil loadings into a river can cause an increase in total dissolved solids and a resulting decrease in aquatic habitat quality. In addition, the erosion can bring contaminants from soils to aquatic environments.	
Other Potential Receptors Total - Known	**2**			
Other Potential Receptors Total - Potential	**0**			

Exposure Total	
Raw Human Health + Ecological Total - Known	8
Raw Human Health + Ecological Total - Potential	23
Raw Total	31
Exposure Total (max 34)	**22.9**

Only includes "Allowed potential" - if a "Known" score was supplied under a given category then the "Potential" score was not included.

CCME National Classification System (2008)
Score Summary

Scores from individual worksheets are tallied in this worksheet.
Refer to this sheet after filling out the revised NCS completely.

I. Contaminant Characteristics	Known	Potential
1. Residency Media	2	---
2. Chemical Hazard	8	---
3. Contaminant Exceedance Factor	2	---
4. Contaminant Quantity	6	---
5. Modifying Factors	2	---
Raw Total Score	20	0
Raw Total Score (Known + Potential)	20	
Adjusted Total Score (Raw Total / 40 *33)	**16.5**	(max 33)

II. Migration Potential	Known	Potential
1. Groundwater Movement	0	---
2. Surface Water Movement	---	10.4
3. Soil	12	---
4. Vapour	---	0
5. Sediment Movement	9	---
6. Modifying Factors	0	0
Raw Total Score	21	10.4
Raw Total Score (Known + Potential)	31.4	
Adjusted Total Score (Raw Total / 64 * 33)	**16.2**	(max 33)

III. Exposure	Known	Potential
1. Human Receptors		
A. Known Impact	---	
B Potential		
a. Land Use		1
b. Accessibility		2
c. Exposure Route		
i. Direct Contact		3
ii. Inhalation		1
iii. Ingestion		4
2. Human Receptors Modifying Factors	6	---
Raw Total Human Score	6	11
Raw Total Human Score (Known + Potential)	17	
Adjusted Total Human Score	17.0	(maximum 22)
3. Ecological Receptors		
A. Known Impact	---	
B. Potential		
a. Terrestrial		4.5
b. Aquatic		7.5
4. Ecological Receptors Modifying Factors	0	---
Raw Total Ecological Score	0	12
Raw Total Ecological Score (Known + Potential)	12	
Adjusted Total Ecological Score	12.0	(maximum 18)
5. Other Receptors	2	0
Total Other Receptors Score (Known + Potential)	2	
Total Exposure Score (Human + Ecological + Other)	**31.0**	
Adjusted Total Exposure Score (Total Exposure / 46 * 34)	**22.9**	(max 34)

Site Score

TC Shoreline Disposal Area

Site Letter Grade	**C**
Certainty Percentage	**75%**
% Responses that are "Do Not Know"	**3%**
Total NCSCS Score for site	**55.6**
Site Classification Category	**2**

Site Classification Categories*:

Class 1 - High Priority for Action (Total NCS Score >70)
Class 2 - Medium Priority for Action (Total NCS Score 50 - 69.9)
Class 3 - Low Priority for Action (Total NCS Score 37 - 49.9)
Class N - Not a Priority for Action (Total NCS Score <37)
Class INS - Insufficient Information (>15% of responses are "Do Not Know")

* NOTE: The term "action" in the above categories does not necessarily refer to remediation, but could also include risk assessment, risk management or further site characterization and data collection.

LEGEND

Approximate extent of contamination

References:
Google Earth satellite image, 2009
Site locations based on dGPS coordinates (UTM - NAD 83)

Title: AEC 2 - Extent of Contamination

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project: CAMBRIDGE BAY AIRPORT PHASE II/III ENVIRONMENTAL SITE ASSESSMENT DRAFT FIELD REPORT

Date: JANUARY 2010

Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA | TRANSPORT CANADA

Scale: See figures for scale

FIGURE 11

1748-0901/CAD/Cambridge Bay.dwg DRAFT Jan 29/10

CCME National Classification System for Contaminated Sites (2008)
Pre-Screening Checklist

Question	Response (yes / no)	Comment
1. Are **Radioactive material**, **Bacterial contamination** or **Biological hazards** likely to be present at the site?	No	If yes, do not proceed through the NCSCS. Contact applicable regulatory agency immediately.
2. Are there **no contamination exceedances** (known or suspected)? Determination of exceedances may be based on: 1) CCME environmental quality guidelines; 2) equivalent provincial guidelines/standards if no CCME guideline exists for a specific chemical in a relevant medium; or 3) toxicity benchmarks derived from the literature for chemicals not covered by CCME or provincial guidelines/standards.	No	If yes (i.e., there are no exceedances), do not proceed through the NCSCS.
3. Have **partial/incompleted or no environmental site investigations** been conducted for the Site?	No	If yes, do not proceed through the NCSCS.
4. Is there direct and signficant evidence of **impacts to humans** at the site, or off-site due to migration of contaminants from the site?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
5. Is there direct and significant evidence of **impacts to ecological receptors** at the site, or off-site due to migration of contaminants from the site?	No	Some low levels of impact to ecological receptors are considered acceptable, particularly on commercial and industrial land uses. However, if ecological effects are considered to be severe, the site may be categorized as Class 1, regardless of the numerical total NCSCS score. For the purpose of application of the NCSCS, effects that would be considered severe include observed effects on survival, growth or reproduction which could threaten the viability of a population of ecological receptors at the site. Other evidence that qualifies as severe adverse effects may be determined based on professional judgement and in consultation with the relevant jurisdiction.
6. Are there indicators of significant **adverse effects in the exposure zone** (i.e., the zone in which receptors may come into contact with contaminants)? Some examples are as follows: -Hydrocarbon sheen or NAPL in the exposure zone -Severely stressed biota or devoid of biota; -Presence of material at ground surface or sediment with suspected high concentration of contaminants such as ore tailings, sandblasting grit, slag, and coal tar.	Yes	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
7. Do measured concentrations of volatiles or unexploded ordnances represent an **explosion hazard**?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, and do not continue until the safety risks have been addressed. Consult your jurisdiction's occupational health and safety guidance or legislation on exposive hazards and measurement of lower explosive limits.

If none of the above applies, proceed with the NCSCS scoring.

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

Subject Site:	**Firefighter Training Area**	
Civic Address: *(or other description of location)*	Cambridge Bay Airport, Cambridge Bay, NT	
Site Common Name : *(if applicable)*	Firefighter Training Area (AEC 3)	
Site Owner or Custodian: *(Organization and Contact Person)*	Governement of Nunavut Shawn Maley (Director, Nunavut Airports) 867-645-8203	
Legal description *or* metes and bounds:	Lot 1004, QUAD77/D2, 79787 CLSR, 2958LTO	
Approximate Site area:	13,000 m2	
PID(s) : *(or Parcel Identification Numbers [PIN] if untitled Crown land)*	N/A	
Centre of site: *(provide latitude/longitude or UTM coordinates)*	Latitude: Longitude:	__69__ degrees __06_ min __40.4__ secs __105_ degrees __09__ min __42.8__ secs
	UTM Coordinate:	
Site Land Use:	Current:	Commercial
	Proposed:	Commercial
Site Plan	**To delineate the bounds of the Site a site plan MUST be attached. The plan must be drawn to scale indicating the boundaries in relation to well-defined reference points and/or legal descriptions. Delineation of the contamination should also be indicated on the site plan.**	
Provide a brief description of the Site:	The former fire training area (FTA) is situated to the southwest of the runway along the west part of the airport. The former FTA consisted of an aircraft mock-up area where fuel and potentially other combustible/flammable (waste) liquids were was burned for fire fighting training purposes. It was, enclosed in a containment berm about 40cm high and constructedmade of local till material. An ASTs wereas also historically present on site. According to Agra (1999) Tilling of the FTA to aerate the soil was been completed by TC between 1995 and 1996 after it was taken out of use . The site was vacant and not in use during the investigation conducted by Franz in 2009.	

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

Affected media and Contaminants of Potential Concern (COPC):	Affected Media: Soil and groundwater COPC: BTEX, F1-F4, PAH, VOC, Lead, PCBs and PFOS.

Please fill in the "letter" that best describes the level of information available for the site being assessed

Site Letter Grade **C**

If letter grade is F, do not continue, you must have a minimum of a Phase I Environmental Site Assessment or equivalent.

Scoring Completed By:	**Viviane Dubois-Cote**
Date Scoring Completed:	**19-Jan-10**

CCME National Classification System (2008)

(I) Contaminant Characteristics

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method of Evaluation	Notes
1. Residency Media (replaces physical state)				
Which of the following residency media are known (or strongly suspected) to have one or more exceedances of the applicable CCME guidelines? **yes** = has an exceedance or strongly suspected to have an exceedance **no** = does not have an exceedance or strongly suspected not to have an exceedance			The overall score is calculated by adding the individual scores from each residency media (having one or more exceedance of the most conservative media specific and land-use appropriate CCME guideline). Summary tables of the Canadian Environmental Quality Guidelines for soil, water (aquatic life, non-potable groundwater environments, and agricultural water uses) and sediment are available on the CCME website at http://www.ccme.ca/publications/ceqg_rcqe.html?category_id=124. For potable groundwater environments, guidelines for Canadian Drinking Water Quality (for comparison with groundwater monitoring data) are available on the Health Canada website at http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/sum_guide-res_recom/index_e.html.	An increasing number of residency media containing chemical exceedances often equates to a greater potential risk due to an increase in the number of potential exposure pathways.
A. Soil	Yes	Soil assessed against CCME guidelines and exceedances found. Groundwater assessed agains BC CSR AW (Marine Life) standards and exceedances found. In the absence of federal guidelines to assess the quality of groundwater at the site, water analytical results were compared against British Columbia Contaminated Sites Regulation (BC CSR) Standards. Standards from BC were selected over other nearby provinces as BC regulations include groundwater discharges to both freshwater and marine receptors. No surface water on site. No sediment on site.		
Yes No Do Not Know				
B. Groundwater	Yes			
Yes No Do Not Know				
C. Surface water	No			
Yes No Do Not Know				
D. Sediment	No			
Yes No Do Not Know				
"Known" -score	4			
"Potential" - score	---			
2. Chemical Hazard				
What is the relative degree of chemical hazard of the contaminant in the list of hazard rankings proposed by the Federal Contaminated Sites Action Plan (FCSAP)?	High	Benzene, Ethylbenzene, F2 Fraction in soil; Benzene, Naphthalene and Pb in groundwater CCME National Classification system (2008) Document, Appendix VI, Table VI.1 - Hazard ranking of contaminants	The relative degree of chemical hazard should be selected based on the most hazardous contaminant known or suspected to be present at the site. The degree of hazard has been defined by the Federal Contaminated Sites Action Plan (FCSAP) and a list of substances with their associated hazard (Low, Medium and High) has been provided as a separate sheet in this file. *See Attached Reference Material for Contaminant Hazard Rankings.*	Hazard as defined in the revised NCS pertains to the physical properties of a chemical which can cause harm. Properties can include toxic potency, propensity to biomagnify, persistence in the environment, etc. Although there is some overlap between hazard and contaminant exceedance factor below, it will not be possible to derive contaminant exceedance factors for many substances which have a designated chemical hazard designation, but don't have a CCME guideline. The purpose of this category is to avoid missing a measure of toxic potential.
High Medium Low Do Not Know				
"Known" -score	8			
"Potential" - score	---			
3. Contaminant Exceedence Factor				
What is the ratio between the measured contaminant concentration and the applicable CCME guidelines (or other "standards")?	dium (10x to 10	• Exceedances between 1X and 10 X CCME guidelines for soil: Benzene at 3-09TP-4M (0.5-2.1m) = max 1.2 ug/g Ethylbenzene at 3-09TP-6M (DUP2) (1.0-2.0m) = 0.1 ug/g F2 at 3-09TP-5M and 3-09TP-6M (0.5-2.0m) = max 1,700 ug/g • Exceedances between 1X and 100X BC CSR AW (Marine Life) standard in groundwater: Naphthalene at 3-09-4M and 3-09-5M = max 330 ug/L Benzene at 3-09-4M = 1,700 ug/L Lead at 3-09-4M = 100 ug/L	Ranking of contaminant "exceedance" is determined by comparing contaminant concentrations with the *most conservative media-specific and land-use appropriate CCME* environmental quality guidelines. **Ranking should be based on contaminant with greatest exceedance of CCME guidelines.** Ranking of contaminant hazard as high, medium and low is as follows: High = One or more measured contaminant concentration is greater than 100 X appropriate CCME guidelines Medium = One or more measured contaminant concentration is 10 - 99.99 X appropriate CCME guidelines Low = One or more measured contaminant concentration is 1 - 9.99 X appropriate CCME guidelines Mobile NAPL = Contaminant is a non-aqueous phase liquid (i.e., due to its low solubility, it does not dissolve in water, but remains as a separate liquid) and is present at a sufficiently high saturation (i.e., greater than residual NAPL saturation) such that there is significant potential for mobility either downwards or laterally. Other standards may include local background concentration or published toxicity benchmarks. Results of toxicity testing with site samples can be used as an alternative. This approach is only relevant for contaminants that do not biomagnify in the food web, since toxicity tests would not indicate potential effects at higher trophic levels. High = lethality observed. Medium = no lethality, but sub lethal effects observed. Low = neither lethal nor sub lethal effects observed.	In the event that elevated levels of a material with no associated CCME guidelines are present, check provincial and USEPA environmental criteria. Hazard Quotients (sometimes referred to as a screening quotient in risk assessments) refer to the ratio of measured concentration to the concentration believed to be the threshold for toxicity. A similar calculation is used here to determine the contaminant exceedance factor (CEF). Concentrations greater than one times the applicable CCME guideline (i.e., CEF=>1) indicate that risks are possible. Mobile NAPL has the highest associated score (8) because of its highly concentrated nature and potential for increase in the size of the impacted zone.
Mobile NAPL High (>100x) Medium (10x to 100x) Low (1x to 10x) Do Not Know				
"Known" -score	4			
"Potential" - score	---			

CCME National Classification System (2008)

(I) Contaminant Characteristics

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method of Evaluation	Notes
4. Contaminant Quantity (known or strongly suspected) :				
What is the known or strongly suspected quantity of all contaminants? >10 hectare (ha) or 5000 m^3 2 to 10 ha or 1000 to 5000 m^3 <2 ha or 1000 m^3 Do Not Know	>10 hectare (ha) or 5000 m3	Based on Phase II/III ESA conducted by Franz. (Phase II/III Environmental Site Assessment, Cambridge Bay Airport, Cambridge Bay - DRAFT, Franz Environmental Inc. 2010)	Measure or estimate the area or quantity of total contamination (i.e, all contaminants known or strongly suspected to be present on the site). The "Area of Contamination" is defined as the area or volume of contaminated media (soil, sediment, groundwater, surface water) exceeding appropriate environmental criteria.	A larger quantity of a potentially toxic substance can result in a larger frequency of exposure as well as a greater probability of migration, therefore, larger quantities of these substances earn a higher score.
"Known" -score	9			
"Potential" - score	---			
5. Modifying Factors				
Does the chemical fall in the class of persistent chemicals based on its behavior in the environment? Yes No Do Not Know	Yes	Pb is persistent in the environment (http://www.inchem.org/documents/ehc/ehc/ehc003.htm)	Persistent chemicals, e.g., PCBs, chlorinated pesticides etc. either do not degrade or take longer to degrade, and therefore may be available to cause effects for a longer period of time. Canadian Environmental Protection Act (CEPA) classifies a chemical as persistent when it has at least one of the following characteristics: (a) in air, (i) its half-life is equal to or greater than 2 days, or (ii) it is subject to atmospheric transport from its source to a remote area; (b) in water, its half-life is equal to or greater than 182 days; (c) in sediments, its half-life is equal to or greater than 365 days; or (d) in soil, its half-life is equal to or greater than 182 days. This list does not include metals or metalloids, which in their elemental form do not degrade. However metals and metalloids form chemical species in the environment, many of which are not readily bioavailable.	*Examples of Persistent Substances are provided in attached Reference Materials*
Are there contaminants present that could cause damage to utilities and infrastructure, either now or in the future, given their location? Yes No Do Not Know	Yes	Hydrocarbons in soil		Some contaminants may react or absorb into underground utilities and infrastructure. For example, organic solvents may degrade some plastics, and salts could cause corrosion of metal.
How many different contaminant classes have representative CCME guideline exceedances? one two to four five or more Do Not Know	two to four	Metals, BTEX, PAH	For the purposes of the revised NCS ranking system, the following chemicals represent distinct chemical "classes": inorganic substances (including metals), volatile petroleum hydrocarbons, light extractable petroleum hydrocarbons, heavy extractable petroleum hydrocarbons, PAHs, phenolic substances, chlorinated hydrocarbons, halogenated methanes, phthalate esters, pesticides.	*Refer to the Reference Material sheet for a list of example substances that fall under the various chemical classes.*
"Known" - Score	6			
"Potential" - Score	---			

Contaminant Characteristic Total

Raw Total Scores- "Known"	31
Raw Total Scores- "Potential"	0
Raw Combined Total Scores	31
Total Score (Raw Combined / 40 * 33)	**25.6**

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
1. Groundwater Movement				
A. Known COPC exceedances and an operable groundwater pathway within and/or beyond the property boundary.				
i) For **potable groundwater environments**, 1) groundwater concentrations exceed background concentrations and 1X the Guideline for Canadian Drinking Water Quality (GCDWQ) or 2) there is known contact of contaminants with groundwater, based on physical evidence of groundwater contamination. For **non-potable environments** (typically urban environments with municipal services), 1) groundwater concentrations exceed 1X the applicable non potable guidelines or modified generic guidelines (which exclude ingestion of drinking water pathway) or 2) there is known contact of contaminants with groundwater, based on physical evidence of groundwater impacts.	12	Groundwater exceeds BC CSR Aquatic Life (Marine Life) standard for Benzene, Naphthalene (3-09-4M and 3-09-5M) and Pb (3-09-4M)	Review chemical data and evaluate groundwater quality. The evaluation method concentrates on 1) a potable or non-potable groundwater environment; 2) the groundwater flow system and its potential to be an exposure pathway to known or potential receptors An aquifer is defined as a geologic unit that yields groundwater in usable quantities and drinking water quality. The aquifer can currently be used as a potable water supply or could have the potential for use in the future. Non-potable groundwater environments are defined as areas that are serviced with a reliable alternative water supply (most commonly provided in urban areas). The evaluation of a non-potable environment will be based on a site specific basis. Physical evidence includes significant sheens, liquid phase contamination, or contaminant saturated soils. Seeps and springs are considered part of the groundwater pathway. In Arctic environments, the potability and evaluation of the seasonal active layer (above the permafrost) as a groundwater exposure pathway will be considered on a site-specific basis.	The 1992 NCS rationale evaluated the off-site migration as a regulatory issue. The exposure assessment and classification of hazards should be evaluated regardless of the property boundaries. Someone experienced must provide a thorough description of the sources researched to determine the presence/absence of a groundwater supply source in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resources such as internet links. Note that for potable groundwater that also daylights into a nearby surface water body, the more stringent guidelines for both drinking water and protection of aquatic life should be considered. **Selected References** Potable Environments Guidelines for Canadian Drinking Water Quality: www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/sum_guide-res_recom/index_e.html Non-Potable Environments Canadian Water Quality Guidelines for Protection of Aquatic Life. CCME. 1999 www.ccme.ca Compilation and Review of Canadian Remediation Guidelines, Standards and Regulations. Science Applications International Corporation (SAIC Canada), report to Environment Canada, January 4, 2002.
ii) Same as (i) except the information is not known but strongly suspected based on indirect observations.	9			
iii) Meets GCDWQ for **potable environments**; meets non-potable criteria or modified generic criteria (excludes ingestion of drinking water pathway) for **non-potable environments** **or** Absence of groundwater exposure pathway (i.e., there is no aquifer (see definition at right) at the site or there is an adequate isolating layer between the aquifer and the contamination, and within 5 km of the site there are no aquatic receiving environments and the groundwater does not daylight).	0			
Score	12 12			
NOTE: If a score is assigned here for Known COPC Exceedances, then you can skip Part B (Potential for groundwater pathway) and go to Section 2 (Surface Water Pathway)				
B. Potential for groundwater pathway.				
a. Relative Mobility High Moderate Low Insignificant Do Not Know		Not scored	Organics Koc < 500 (i.e., log Koc < 2.7) Koc = 500 to 5000 (i.e., log Koc = 2.7 to 3.7) Koc = 5,000 to 100,000 (i.e., log Koc = 3.7 to 5) Koc > 100,000 (i.e., log Koc > 5) Metals with higher mobility pH < 5 pH = 5 to 6 pH > 6 Metals with higher mobility pH > 5 pH = 5 to 6 pH < 6	Reference: US EPA Soil Screening Guidance (Part 5 - Table 39) If a score of zero is assigned for relative mobility, it is still recommended that the following sections on potential for groundwater pathway be evaluated and scored. Although the Koc of an individual contaminant may suggest that it will be relatively immobile, it is possible that, with complex mixtures, there could be enhanced mobility due to co-solvent effects. Therefore, the Koc cannot be relied on solely as a measure of mobility. An evaluation of other factors such as containment, thickness of confining layer, hydraulic conductivities and precipitation infiltration rate are still useful in predicting potential for groundwater migration, even if a contaminant is expected to have insignificant mobility based on its chemistry alone.
	Do Not Know			
Score	2			
b. Presence of engineered sub-surface containment? No containment Partial containment Full containment Do Not Know		Not scored	Review the existing engineered systems or natural attenuation processes for the site and determine if full or partial containment is achieved. Full containment is defined as an engineered system or natural attenuation processes, monitored as being effective, which provide for full capture and/or treatment of contaminants. All chemicals of concern must be contained for "Full Containment" scoring. Natural attenuation must have sufficient data, and reports cited with monitoring data to support steady state conditions and the attenuation processes. If there is no containment or insufficient natural attenuation process, this category is evaluated as high. If there is less than full containment or if uncertain, then evaluate as medium. In Arctic environments, permafrost will be evaluated, as appropriate, based on detailed evaluations, effectiveness and reliability to contain/control contaminant migration.	Someone experienced must provide a thorough description of the sources researched to determine the containment of the source at the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps, geotechnical reports or natural attenuation studies and other resources such as internet links. **Selected Resources:** United States Environmental Protection Agency (USEPA) 1998. Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater. EPA/600/R-98/128. Environment Canada – Ontario Region – Natural Attenuation Technical Assistance Bulletins (TABS) Number 19 –21.
	Do Not Know			
Score	1.5			
c. Thickness of confining layer over aquifer of concern or groundwater exposure pathway 3 m or less including no confining layer or discontinuous confining layer 3 to 10 m > 10 m Do Not Know		Not scored	The term "confining layer" refers to geologic material with little or no permeability or hydraulic conductivity (such as unfractured clay); water does not pass through this layer or the rate of movement is extremely slow. Measure the thickness and extent of materials that will impede the migration of contaminants to the groundwater exposure pathway. The evaluation of this category is based on: 1) The presence and thickness of saturated subsurface materials that impede the vertical migration of contaminants to lower aquifer units which can or are used as drinking water sources or 2) The presence and thickness of unsaturated subsurface materials that impede the vertical migration of contaminants from the source location to the saturated zone (e.g., water table aquifer, first hydrostratigraphic unit or other groundwater	
	Do Not Know			
Score	0.5			
d. Hydraulic conductivity of confining layer >10^{-4} cm/s or no confining layer 10^{-4} to 10^{-6} cm/s <10^{-6} cm/s Do Not Know		Not scored	Determine the nature of geologic materials and estimate hydraulic conductivity from published material (or use "Range of Values of Hydraulic Conductivity and Permeability" figure in the Reference Material sheet). Unfractured clays should be scored low. Silts should be scored medium. Sand, gravel should be scored high. The evaluation of this category is based on: 1) The presence and hydraulic conductivity ("K") of saturated subsurface materials that impede the vertical migration of contaminants to lower aquifer units which can or are used as a drinking water source, groundwater exposure pathway or 2) The presence and permeability ("k") of unsaturated subsurface materials that	
	Do Not Know			
Score	0.5			

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for groundwater pathway.				
e. Precipitation infiltration rate (Annual precipitation factor x surface soil relative permeability factor) High Moderate Low Very Low None Do Not Know	Do Not Know	Not scored	Precipitation Refer to Environment Canada precipitation records for relevant areas. Divide annual precipitation by 1000 and round to nearest tenth (e.g., 667 mm = 0.7 score). Permeability For surface soil relative permeability (i.e., infiltration) assume: gravel (1), sand (0.6), loam (0.3) and pavement or clay (0). Multiply the surface soil relative permeability factor with precipitation factor to obtain the score for precipitation infiltration rate.	
Score	0.4			
f. Hydraulic conductivity of aquifer $>10^{-2}$ cm/s 10^{-2} to 10^{-4} cm/s $<10^{-4}$ cm/s Do Not Know	Do Not Know	Not scored	Determine the nature of geologic materials and estimate hydraulic conductivity of all aquifers of concern from published material (refer to "Range of Values of Hydraulic Conductivity and Permeability" in the Reference Material sheet).	
Score	1			
Potential groundwater pathway total	5.9			
Allowed Potential score	---	Note: If a "known" score is provided, the "potential" score is disallowed.		
Groundwater pathway total	**12**			
2. Surface Water Movement				
A. Demonstrated migration of COPC in surface water above background conditions				
Known concentrations of surface water: i) Concentrations exceed background concentrations and exceed CCME CWQG for protection of aquatic life, irrigation, livestock water, and/or recreation (whichever uses are applicable at the site) by >1 X; or There is known contact of contaminants with surface water based on site observations. or In the absence of CWQG, chemicals have been proven to be toxic based on site specific testing (e.g. toxicity testing; or other indicator testing of exposure).	12		Collect all available information on quality of surface water near to site. Evaluate available data against Canadian Water Quality Guidelines (select appropriate guidelines based on local water use, e.g., recreation, irrigation, aquatic life, livestock watering, etc.). The evaluation method concentrates on the surface water flow system and its potential to be an exposure pathway. Contamination is present on the surface (above ground) and has the potential to impact surface water bodies. Surface water is defined as a water body that supports one of the following uses: recreation, irrigation, livestock watering, aquatic life.	General Notes: Someone experienced must provide a thorough description of the sources researched to classify the surface water body in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resource such as internet links. Selected References: CCME. 1999. Canadian Water Quality Guidelines for the Protection of Aquatic Life www.ccme.ca CCME. 1999. Canadian Water Quality Guidelines for the Protection of Agricultural Water Uses (Irrigation and Livestock Water) www.ccme.ca Health and Welfare Canada. 1992. Guidelines for Canadian Recreational Water Quality.
ii) Same as (i) except the information is not known but strongly suspected based on indirect observations.	8			
iii) Meets CWQG or absence of surface water exposure pathway (i.e., Distance to nearest surface water is > 5 km.)	0			
Score	Go to Potentia ---			
NOTE: If a score is assigned here for Demonstrated Migration in Surface Water, then you can skip Part B (Potential for migration of COPCs in surface water) and go to Section 3 (Surface Soils)				
B. Potential for migration of COPCs in surface water				
a. Presence of containment No containment Partial containment Full containment Do Not Know	No containme		Review the existing engineered systems and relate these structures to site conditions and proximity to surface water and determine if full containment is achieved: score low if there is full containment such as capping, berms, dikes; score medium if there is partial containment such as natural barriers, trees, ditches, sedimentation ponds; score high if there are no intervening barriers between the site and nearby surface water. Full containment must include	
Score	5			
b. Distance to Surface Water 0 to <100 m 100 - 300 m >300 m Do Not Know	100 - 300 m	Cambridge Bay 100m to the South	Review available mapping and survey data to determine distance to nearest surface water	
Score	2			

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
c. Topography Contaminants above ground level and slope is steep Contaminants at or below ground level and slope is steep Contaminants above ground level and slope is intermediate Contaminants at or below ground level and slope is intermediate Contaminants above ground level and slope is flat Contaminants at or below ground level and slope is flat Do Not Know	At/below and f		Review engineering documents on the topography of the site and the slope of surrounding terrain. Steep slope = >50% Intermediate slope = between 5 and 50% Flat slope = < 5% Note: Type of fill placement (e.g., trench, above ground, etc.).	
Score	0			
d. Run-off potential High (rainfall run-off score > 0.6) Moderate (0.4 < rainfall run-off score <0.6) Low (0.2 < rainfall run-off score <0.4) Very Low (0 < rainfall run-off score < 0.2) None (rainfall run-off score = 0) Do Not Know	Very Low (0 < rainfall run-	Annual precipitation 138.8 mm (Environment Canada website) and soils observed during site investigation by Franz in 2009 were described as silt to silty sand.	Rainfall Refer to Environment Canada precipitation records for relevant areas. Divide rainfall by 1000 and round to nearest tenth (e.g., 667 mm = 0.7 score). The former definition of "annual rainfall" did not include the precipitation as snow. This minor adjustment has been made. The second modification was the inclusion of permeability of surface materials as an evaluation factor. Permeability For infiltration assume: gravel (0), sand (0.3), loam (0.6) and pavement or clay (1).	Selected Sources: Environment Canada web page link:www.msc.ec.gc.ca Snow to rainfall conversion apply ratio of 15 (snow):1(water)
Score	0.4			
e. Flood potential 1 in 2 years 1 in 10 years 1 in 50 years Do Not Know	Do Not Know		Review published data such as flood plain mapping or flood potential (e.g., spring or mountain run-off) and Conservation Authority records to evaluate flood potential of nearby water courses both up and down gradient. Rate zero if site not in flood plain.	
Score	0.5			
Potential surface water pathway total	7.9			
Allowed Potential score	7.9	Note: If a "known" score is provided, the "potential" score is disallowed.		
Surface water pathway total	**7.9**			
3. Surface Soils (potential for dust, dermal and ingestion exposure)				
A. Demonstrated concentrations of COPC in surface soils (top 1.5 m)				
COPCs measured in surface soils exceed the CCME soil quality guideline	12		Collect all available information on quality of surface soils (i.e., top 1.5 metres) at the site. Evaluate available data against Canadian Soil Quality Guidelines. Select appropriate guidelines based on current (or proposed future) land use (i.e, agricultural, residential/parkland, commercial, or industrial), and soil texture if applicable (i.e., coarse or fine).	Selected References: CCME. 1999. Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health www.ccme.ca
Strongly suspected that soils exceed guidelines	9	Benzene, Ethylbenzene and F2 fraction exceed applicable CCME guideline in soil (3-09-4M, 3-09-5M and 3-09-6M between 0-2m)		
COPCs in surface soils does not exceed the CCME soil quality guideline or is not present (i.e., bedrock).	0			
	12			
Score	12			
NOTE: If a score is assigned here for Demonstrated Concentrations in Surface Soils, then you can skip Part B (Potential for a surface soils migration pathway) and go to Section 4 (Vapour)				
B. Potential for a surface soils (top 1.5 m) migration pathway				
a. Are the soils in question covered? Exposed Vegetated Landscaped Paved Do Not Know	Do Not Know	Not scored	Consult engineering or risk assessment reports for the site. Alternatively, review photographs or perform a site visit. Landscaped surface soils must include a minimum of 0.5 m of topsoil.	The possibility of contaminants in blowing snow have not been included in the revised NCS as it is difficult to assess what constitutes an unacceptable concentration and secondly, spills to snow or ice are most efficiently mitigated while freezing conditions remain.
Score	4			
b. For what proportion of the year does the site remain covered by snow? 0 to 10% of the year 10 to 30% of the year More than 30% of the year Do Not Know	Do Not Know	Not scored	Consult climatic information for the site. The increments represent the full span from soils which are always wet or covered with snow (and therefore less likely to generate dust) to those soils which are predominantly dry and not covered by snow (and therefore are more likely to generate dust).	
Score	3			
Potential surface soil pathway total	7			
Allowed Potential score	---	**Note: If a "known" score is provided, the "potential" score is disallowed.**		
Soil pathway total	**12**			

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
4. Vapour				
A. Demonstrated COPCs in vapour.				
Vapour has been measured (indoor or outdoor) in concentrations exceeding risk based concentrations. Strongly suspected (based on observations and/or modelling) Vapour has not been measured and volatile hydrocarbons have not been found in site soils or groundwater. Score	12 9 0 Go to Potentia ---	Vapour not assessed.	Consult previous investigations, including human health risk assessments, for reports of vapours detected.	
NOTE: If a score is assigned here for Demonstrated COPCs in Vapour, then you can skip Part B (Potential for COPCs in vapour) and go to Section 5 (Sediment)				
B. Potential for COPCs in vapour				
a. Relative Volatility based on Henry's Law Constant, H' (dimensionless) High (H' > 1.0E-1) Moderate (H' = 1.0E-1 to 1.0E-3) Low (H' < 1.0E-3) Not Volatile Do Not Know Score	High 4	Benzene (H'= 2.28E-01) Ethylbenzene (H' = 3.23E-01) Naphthalene (H' = 1.98E-02) CCME National Classification system (2008) Document, Appendix VI, Table VI.4 - Chemical-specific properties	Reference: US EPA Soil Screening Guidance (Part 5 - Table 36) *Provided in Attached Reference Materials*	If the Henry's Law Constant for a substance indicates that it is not volatile, and a score of zero is assigned here for relative volatility, then the other three questions in this section on Potential for COPCs will be automatically assigned scores of zero and you can skip to section 5.
b. What is the soil grain size? Fine Coarse Do Not Know Score	Fine 2	Silt to silty sand observed during site investigation by Franz in 2009.	Review soil permeability data in engineering reports. The greater the permeability of soils, the greater the possible movement of vapours. Fine-grained soils are defined as those which contain greater than 50% by mass particles less than 75 µm mean diameter (D50 < 75 µm). Coarse-grained soils are defined as those which contain greater than 50% by mass particles greater than 75 µm mean diameter (D50 > 75 µm).	
c. Is the depth to the source less than 10m? Yes No Do Not Know Score	Yes 2	Contaminated soils found at depth between 0-2m	Review groundwater depths below grade for the site.	
d. Are there any preferential pathways? Yes No Do Not Know Score	No 0	No	Visit the site during dry summer conditions and/or review available photographs. Where bedrock is present, fractures would likely act as preferential pathways.	Preferential pathways refer to areas where vapour migration is more likely to occur because there is lower resistance to flow than in the surrounding materials. For example, underground conduits such as sewer and utility lines, drains, or septic systems may serve as preferential pathways. Features of the building itself that may also be preferential pathways include earthen floors, expansion joints, wall cracks, or foundation perforations for subsurface features such as utility pipes, sumps, and drains.
Potential vapour pathway total Allowed Potential score **Vapour pathway total**	8 8 **8**	Note: If a "known" score is provided, the "potential" score is disallowed.		
5. Sediment Movement				
A. Demonstrated migration of sediments containing COPCs				
There is evidence to suggest that sediments originally deposited to the site (exceeding the CCME sediment quality guidelines) have migrated. Strongly suspected (based on observations and/or modelling) Sediments have been contained and there is no indication that sediments will migrate in future. **or** Absence of sediment exposure pathway (i.e., within 5 km of the site there are no aquatic receiving environments, and therefore no sediments). Score	12 9 0 Go to Potentia ---	No sediment on site.	Review sediment assessment reports. Evidence of migration of contaminants in sediments must be reported by someone experienced in this area.	Usually not considered a significant concern in lakes/marine environments, but could be very important in rivers where transport downstream could be significant.
NOTE: If a score is assigned here for Demonstrated Migration of Sediments, then you can skip Part B (Potential for Sediment Migration) and go to Section 6 (Modifying Factors)				

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for sediment migration				
a. Are the sediments having COPC exceedances capped with sediments having no exceedances ("clean sediments")?	Do Not Know		Review existing sediment assessments. If sediment coring has been completed, it may indicate that historically contaminated sediments have been covered over by newer "clean" sediments. This assessment will require that cores collected demonstrate a low concentration near the top and higher concentration with sediment depth.	
Yes				
No				
Do Not Know	2			
b. For lakes and marine habitats, are the contaminated sediments in shallow water and therefore likely to be affected by tidal action, wave action or propeller wash?	Do Not Know		Review existing sediment assessments. If the sediments present at the site are in a river, select "no" for this question.	
Yes				
No				
Do Not Know	2			
c. For rivers, are the contaminated sediments in an area prone to sediment scouring?	Do Not Know		Review existing sediment assessments. It is important that the assessment is made under worst case flows (high yearly flows). Under high yearly flows, areas	
Yes				
No				
Do Not Know	2			
Potential sediment pathway total	6			
Allowed Potential score	6	Note: If a "known" score is provided, the "potential" score is disallowed.		
Sediment pathway total	**6**			
6. Modifying Factors				
Are there subsurface utility conduits in the area affected by contamination?	No		Consult existing engineering reports. Subsurface utilities can act as conduits for contaminant migration.	
Yes				
No				
Do Not Know				
Known	0			
Potential	0			

Migration Potential Total		
Raw "known" total	24	
Raw "potential" total	21.9	Note: If "Known" and "Potential" scores are provided, the checklist defaults to known.
Raw combined total	45.9	Therefore, the total "Potential" Score may not reflect the sum of the individual "Potential"
Total (max 33)	**23.7**	scores.

CCME National Classification System (2008)

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
1. Human				
A. Known exposure				
Documented adverse impact or high quantified exposure which has or will result in an adverse effect, injury or harm or impairment of the safety to humans as a result of the contaminated site. (Class 1 Site*) Same as above, but "Strongly Suspected" based on observations or indirect evidence. No quantified or suspected exposures/impacts in humans. Score	22 10 0 Go to Potential ---	No human activity onsite	*Where adverse effects on humans are documented, the site should be automatically designated as a Class 1 site (i.e., action required). There is no need to proceed through the NCS in this case. However, a scoring guideline (22) is provided in case a numerical score for the site is still desired (e.g. for comparison with other Class 1 sites). This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients >1 for noncarcinogenic chemicals and incremental cancer risks that exceed acceptable levels defined by the jurisdiction for carcinogenic chemicals (for most jurisdictions this is typically either $>10^{-5}$ or $>10^{-6}$). Known impacts can also be evaluated based on blood testing (e.g. blood lead >10 ug/dL) or other health based testing. This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients of less than 0.2 for non-carcinogenic chemicals and incremental lifetime cancer risks for carcinogenic chemicals that are within acceptable levels as defined by the jurisdiction (for most jurisdictions this is less than either 10^{-6} or 10^{-5}).	Known adverse impact includes domestic and traditional food sources. Adverse effects based on food chain transfer to humans and/or animals can be scored in this category. However, the weight of evidence must show a direct link of a contaminated food source/supply and subsequent ingestion/transfer to humans. Any associated adverse effects to the environment are scored separately later in this worksheet. Someone experienced must provide a thorough description of the sources researched to evaluate and determine the quantified exposure/impact (adverse effect) in the vicinity of the contaminated site. **Selected References:** Health Canada – Federal Contaminated Site Risk Assessment in Canada Parts 1 and 2 Guidance on Human Heath Screening Level Risk Assessments (www.hc-sc.gc.ca/ewh-semt/pubs/contamsite/index_e.html) United States Environmental Protection Agency, Integrated Risk Information System (IRIS) -http://toxnet.nml.nih.gov
NOTE: If a score is assigned here for Known Exposure, then you can skip Part B (Potential for Human Exposure) and go to Section 2 (Human Exposure Modifying Factors)				
B. Potential for human exposure				
a) Land use (provides an indication of potential human exposure scenarios) Agricultural Residential / Parkland Commercial Industrial Do Not Know Score	 Commercial 1	Site is on airport lands.	Review zoning and land use maps over the distances indicated. If the proposed future land use is more "sensitive" than the current land use, evaluate this factor assuming the proposed future use is in place Agricultural land use is defined as uses of land where the activities are related to the productive capability of the land or facility (e.g., greenhouse) and are agricultural in nature, or activities related to the feeding and housing of animals as livestock. Residential/Parkland land uses are defined as uses of land on which dwelling on a permanent, temporary, or seasonal basis is the activity (residential), as well as uses on which the activities are recreational in nature and require the natural or human designed capability of the land to sustain that activity (parkland). Commercial/Industrial land uses are defined as land on which the activities are related to the buying, selling, or trading of merchandise or services (commercial), as well as land uses which are related to the production, manufacture, or storage of materials (industrial).	This is the main "receptor" factor used in site scoring. A higher score implies a greater exposure and/or exposure of more sensitive human receptors (e.g., children).
b. Indicate the level of accessibility to the contaminated portion of the site (e.g., the potential for coming in contact with contamination) Limited barriers to prevent site access; contamination not covered Moderate access or no intervening barriers, contaminants are covered. Remote locations in which contaminants not covered. Controlled access or remote location and contaminants are covered Do Not Know Score	 Access, not covered 2		Review location and structures and contaminants at the site and determine if there are intervening barriers between the site and humans. A low rating should be assigned to a (covered) site surrounded by a fence or in a remote location, whereas a high score should be assigned to a site that has no cover, fence, natural barriers or buffer.	
B. Potential for human exposure				
c) Potential for intake of contaminated soil, water, sediment or foods for operable or potentially operable pathways, as identified in Worksheet II (Migration Potential). i) direct contact Is dermal contact with contaminated surface water, groundwater, sediments or soils anticipated? Yes No Do Not Know Score	 Yes 3	Dermal contact could occur but unlikely as the site is in an area at the airport where no activities occur	If soils or potable groundwater are present exceeding their respective CCME guidelines, dermal contact is assumed. Exposure to surface water, non-potable groundwater or sediments exceeding their respective CCME guidelines will depend on the site. Select "Yes" if dermal exposure to surface water, non-potable groundwater or sediments is expected. For instance, dermal contact with sediments would not be expected in an active port. Only soils in the top 1.5 m are defined by CCME (2003) as surface soils. If contaminated soils are only located deeper than 1.5 m, direct contact with soils is not anticipated to be an operable contaminant exposure pathway.	Exposure via the skin is generally believed to be a minor exposure route. However for some organic contaminants, skin exposure can play a very important component of overall exposure. Dermal exposure can occur while swimming in contaminated waters, bathing with contaminated surface water/groundwater and digging in contaminated dirt, etc.
ii) inhalation (i.e., inhalation of dust, vapour) Vapour - Are there inhabitable buildings on the site within 30 m of soils or groundwater with volatile contamination as determined in Worksheet II (Migration Potential)? Yes No Do Not Know Score Dust - If there is contaminated surface soil (e.g. top 1.5 m) , indicate whether the soil is fine or coarse textured. If it is known that surface soil is not contaminated, enter a score of zero. Fine Coarse Surface soil is not contaminated or absent (bedrock) Do Not Know Texture Score inhalation total	 No 0 Fine 3 3		If inhabitable buildings are on the site within 30 m of soils or groundwater exceeding their respective guidelines for volatile chemicals, there is a potential of risk to human health (Health Canada, 2004). Review site investigations for location of soil samples (having exceedances of volatile substances) relative to buildings. Refer to (II) Migration Potential worksheet, 4B.a),*Potential for COPCs in Vapour* for a definition of volatility. Consult grain size data for the site. If soils (containing exceedances of the CCME soil quality guidelines) predominantly consist of fine material (having a median grain size of 75 microns; as defined by CCME (2006)) then these soils are more likely to generate dusts.	Exposure via the lungs (inhalation) can be a very important exposure pathway. Inhalation can be via both particulates (dust) and gas (vapours). Vapours can be a problem where buildings have been built on former industrial sites or where volatile contaminants have migrated below buildings resulting in the potential for vapour intrusion. Assesses the potential for humans to be exposed to vapours originating from site soils. The closer the receptor is to a source of volatile chemicals in soil, the greater the potential of exposure. Also, coarser-grained soil will convey vapour much more efficiently in the soil than finer grained material such as clays and silts. General Notes; Someone experienced must provide a thorough description of the sources researched to determine the presence/absence of a vapour migration and/or dust generation in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resource such as internet links. Selected References; Canadian Council of Ministers of the Environment (CCME). 2006. Protocol for the Derivation of Environmental and Human Health Soil Quality Guidelines. PN 1332. www.ccme.ca Golder, 2004. Soil Vapour Intrusion Guidance for Health Canada Screening Level Risk Assessment (SLRA) Submitted to Health Canada, Burnaby, BC

CCME National Classification System (2008)

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for human exposure				
iii) Ingestion (i.e., ingestion of food items, water and soils [for children]), including traditional foods.			Review available site data to determine if drinking water (groundwater, surface water, private, commercial or municipal supply) is known or suspected to be contaminated above Guidelines for Canadian Drinking Water Quality. If drinking water supply is known to be contaminated, some immediate action (e.g., provision of alternate drinking water supply) should be initiated to reduce or eliminate exposure. The evaluation of significant potential for exceedances of the water supply in the future may be based on the capture zones of the drinking water wells; contaminant travel times; computer modelling of flow and contaminant transport.	**Selected References:** Guidelines for Canadian Drinking Water Quality: www.hc-sc.gc.ca/hecs-sesc/water/publications/drinking_water_quality_guidelines/toc.htm Drinking water can be an extremely important exposure pathway to humans. If site groundwater or surface water is not used for drinking, then this pathway is considered to be inoperable. Consider both wild foods such as salmon, venison, caribou, as well as agricultural sources of food items if the contaminated site is on or adjacent to agricultural land uses.
Drinking Water: Choose a score based on the proximity to a drinking water supply, to indicate the potential for contamination (present or future).				
0 to 100 m				
100 to 300 m				
300 m to 1 km				
1 to 5 km				
No drinking water present				
Do Not Know				
	No drinking water present			
Score	0			
Is an alternative water supply readily available?				
Yes				
No		Water is supplied by truck		
Do Not Know	Yes			
Score	0			
Is human ingestion of contaminated soils possible?			If contaminated soils are located within the top 1.5 m, it is assumed that ingestion of soils is an operable exposure pathway. Exposure to soils deeper than 1.5 m is possible, but less likely, and the duration is shorter. Refer to human health risk assessment reports for the site in question.	
Yes				
No				
Do Not Know	Yes			
Score	3	Ingestion could occur but unlikely as the site is in an area at the airport where no activities occur		
Are food items consumed by people, such as plants, domestic animals or wildlife harvested from the contaminated land and its surroundings?			Use human health risk assessment reports (or others) to determine if there is significant reliance on traditional food sources associated with the site. Is the food item in question going to spend a large proportion of its time at the site (e.g., large mammals may spend a very small amount of time at a small contaminated site)? Human health risk assessment reports for the site in question will also provide information on potential bioaccumulation of the COPC in question.	
Yes				
No				
Do Not Know	No			
Score	0			
Ingestion total	3			
Human Health Total "Potential" Score	12	Note if a "Known" Human Health score is provided, the "Potential" score is disallowed.		
Allowed "Potential" Score	12			
2. Human Exposure Modifying Factors				
a) Strong reliance of local people on natural resources for survival (i.e., food, water, shelter, etc.)	Yes			
Yes				
No				
Do Not Know				
Known	6			
Potential	---			
Raw Human "known" total	6			
Raw Human "potential" total	12			
Raw Human Exposure Total Score	18			
Human Health Total (max 22)	**18.0**			
3. Ecological				
A. Known exposure				
Documented adverse impact or high quantified exposure which has or will result in an adverse effect, injury or harm or impairment of the safety to terrestrial or aquatic organisms as a result of the contaminated site.	18		Some low levels of impact to ecological receptors are considered acceptable, particularly on commercial and industrial land uses. However, if ecological effects are deemed to be severe, the site may be categorized as class one (i.e., a priority for remediation or risk management), regardless of the numerical total NCS score. For the purpose of application of the NCS, effects that would be considered severe include observed effects on survival, growth or reproduction which could threaten the viability of a population of ecological receptors at the site. Other evidence that qualifies as severe adverse effects may be determined based on professional judgement and in consultation with the relevant jurisdiction. If ecological effects are determined to be severe and an automatic Class 1 is assigned, there is no need to proceed through the NCS. However, a scoring guideline (18) is provided in case a numerical score for the site is still desired (e.g., for comparison with other Class 1 sites).	CCME, 1999: Canadian Water Quality Guidelines for the Protection of Aquatic Life. www.ccme.ca CCME, 1999: Canadian Water Quality Guidelines for the Protection of Agricultural Water Uses. www.ccme.ca Sensitive receptors- review: Canadian Council on Ecological Areaswww.ccea.org. Ecological effects should be evaluated at a population or community level, as opposed to at the level of individuals. For example, population-level effects could include reduced reproduction, growth or survival in a species. Community-level effects could include reduced species diversity or relative abundances. Further discussion of ecological assessment endpoints is provided in *A Framework for Ecological Risk Assessment: General Guidance* (CCME 1996). Notes: Someone experienced must provide a thorough description of the sources researched to classify the environmental receptors in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resource such as internet links.
Same as above, but "Strongly Suspected" based on observations or indirect evidence.	12		This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients >1. Alternatively, known impacts can also be evaluated based on a weight of evidence assessment involving a combination of site observations, tissue testing, toxicity testing and quantitative community assessments. Scoring of adverse effects on individual rare or endangered species will be completed on a case-by-case basis with full scientific justification.	
No quantified or suspected exposures/impacts in terrestrial or aquatic organisms	0		This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients of less than 1 and no other observable or measurable sign of impacts. Alternatively, it can be based on a combination of other lines of evidence showing no adverse effects, such as site observations, tissue testing, toxicity testing and quantitative community assessments.	
	Go to Potential			
Score	---			
NOTE: If a score is assigned here for Known Exposure, then you can skip Part B (Potential for Ecological Exposure) and go to Section 4 (Ecological Exposure Modifying Factors)				

CCME National Classification System (2008)

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for ecological exposure (for the contaminated portion of the site)				
a) Terrestrial i) Land use Agricultural (or Wild lands) Residential/Parkland Commercial Industrial Do Not Know	Commercial	Site is a leased portion of airport lands.	Review zoning and land use maps. If the proposed future land use is more "sensitive" than the current land use, evaluate this factor assuming the proposed future use is in place (indicate in the worksheet that future land use is the consideration). Agricultural land use is defined as uses of land where the activities are related to the productive capability of the land or facility (e.g., greenhouse) and are agricultural in nature, or activities related to the feeding and housing of animals as livestock. Wild lands are grouped with agricultural land due to the similarities in receptors that would be expected to occur there (e.g., herbivorous mammals and birds) and the similar need for a high level of protection to ensure ecological functioning. Residential/Parkland land uses are defined as uses of land on which dwelling on a permanent, temporary, or seasonal basis is the activity (residential), as well as uses on which the activities are recreational in nature and require the natural or human designed capability of the land to sustain that activity (parkland). Commercial/Industrial land uses are defined as land on which the activities are related to the buying, selling, or trading of merchandise or services (commercial), as well as land uses which are related to the production, manufacture, or storage of materials (industrial).	
Score	1			
ii) Uptake potential Direct Contact - Are plants and/or soil invertebrates likely exposed to contaminated soils at the site? Yes No Do Not Know	Yes	Only grass on site	If contaminated soils are located within the top 1.5 m, it is assumed that direct contact of soils with plants and soil invertebrates is an operable exposure pathway. Exposure to soils deeper than 1.5 m is possible, but less likely.	
Score	1			
iii) Ingestion (i.e., wildlife or domestic animals ingesting contaminated food items, soils or water) Are terrestrial animals likely to be ingesting contaminated water at the site? Yes No Do Not Know	Yes		Refer to an Ecological Risk Assessment for the site. If there is contaminated surface water at the site, assume that terrestrial organisms will ingest it.	
Score	1			
Are terrestrial animals likely to be ingesting contaminated soils at the site? Yes No Do Not Know	Yes		Refer to an Ecological Risk Assessment report. Most animals will co-ingest some soil while eating plant matter or soil invertebrates.	
Score	1			
Can the contamination identified bioaccumulate? Yes No Do Not Know	Yes		Bioaccumulation of contaminants within food items is considered possible if: 1) The Log(Kow) of the contaminant is greater than 4 (as per the chemical characteristics work sheet) and concentrations in soils exceed the most conservative CCME soil quality guideline for the intended land use, or 2) The contaminant in collected tissue samples exceeds the Canadian Tissue Residue Guidelines.	
Score	1			
Distance to sensitive terrestrial ecological area 0 to 300 m 300 m to 1 km 1 to 5 km > 5 km Do Not Know	Do Not Know		It is considered that within 300 m of a site, there is a concern for contamination. Therefore an environmental receptor located within this area of the site will be subject to further evaluations. It is also considered that any environmental receptor located greater than 5 km will not be a concern for evaluation. Review Conservation Authority mapping and literature including Canadian Council on Ecological Areas link: www.ccea.org.	Environmental receptors include: local, regional or provincial species of interest or significance; arctic environments (on a site specific basis); nature preserves, habitats for species at risk, sensitive forests, natural parks or forests.
Score	1.5			
Raw Terrestrial Total Potential	6.5	Note if a "Known" Ecological Effects score is provided, the "Potential" score is disallowed.		
Allowed Terrestrial Total Potential	6.5			
B. Potential for ecological exposure (for the contaminated portion of the site)				
b) Aquatic i) Classification of aquatic environment Sensitive Typical Not Applicable (no aquatic environment present) Do Not Know	Typical		"Sensitive aquatic environments" include those in or adjacent to shellfish or fish harvesting areas, marine parks, ecological reserves and fish migration paths. Also includes those areas deemed to have ecological significance such as for fish food resources, spawning areas or having rare or endangered species. "Typical aquatic environments" include those in areas other than those listed above.	
Score	1			
ii) Uptake potential Does groundwater daylighting to an aquatic environment exceed the CCME water quality guidelines for the protection of aquatic life at the point of contact? Yes No (or Not Applicable) Do Not Know	Do Not Know		Groundwater concentrations of contaminants at the point of contact with an aquatic receiving environment can be estimated in three ways: 1) by comparing collected nearshore groundwater concentrations to the CCME water quality guidelines (this will be a conservative comparison, as contaminant concentrations in groundwater often decrease between nearshore wells and the point of discharge). 2) by conducting groundwater modeling to estimate the concentration of groundwater immediately before discharge. 3) by installing water samplers, "peepers", in the sediments in the area of daylighting groundwater.	
Score	0.5			
Distance from the contaminated site to an important surface water resource 0 to 300 m 300 m to 1 km 1 to 5 km > 5 km Do Not Know	0 to 300 m	Cambridge Bay 100m south of the site	It is considered that within 300 m of a site, there is a concern for contamination. Therefore an environmental receptor or important water resource located within this area of the site will be subject to further evaluation. It is also considered that any environmental receptor located greater than 5 km away will not be a concern for evaluation. Review Conservation Authority mapping and literature including Canadian Council on Ecological Areas link:www.ccea.org.	Environmental receptors include: local, regional or provincial species of interest or significance, sensitive wetlands and fens and other aquatic environments.
Score	3			
Are aquatic species (i.e., forage fish, invertebrates or plants) that are consumed by predatory fish or wildlife consumers, such as mammals and birds, likely to accumulate contaminants in their tissues? Yes No Do Not Know	No	No aquatic species onsite	Bioaccumulation of food items is possible if: 1) The Log(Kow) of the contaminant is greater than 4 (as per the chemical characteristics work sheet) and concentrations in sediments exceed the CCME ISQGs. 2) The contaminant in collected tissue samples exceeds the CCME tissue quality guidelines.	
Score	0			
Raw Aquatic Total Potential	4.5	Note if a "Known" Ecological Effects score is provided, the "Potential" score is disallowed.		
Allowed Aquatic Total Potential	4.5			

CCME National Classification System (2008)

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

Firefighter Training Area

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
4. Ecological Exposure Modifying Factors				
a) Known occurrence of a species at risk. Is there a potential for a species at risk to be present at the site? Yes No Do Not Know	 No	http://www.sis.ec.gc.ca/ec_species/ec_species_e.phtml	Consult any ecological risk assessment reports. If information is not present, utilize on-line databases such as Eco Explorer. Regional, Provincial (Environment Ministries), or Federal staff (Fisheries and Oceans or Environment Canada) should be able to provide some guidance.	Species at risk include those that are extirpated, endangered, threatened, or of special concern. For a list of species at risk, consult Schedule 1 of the federal Species at Risk Act (http://www.sararegistry.gc.ca/species/schedules_e.cfm?id=1). Many provincial governments may also provide regionally applicable lists of species at risk. For example, in British Columbia, consult: BCMWLAP. 2005. Endangered Species and Ecosystems in British Columbia. Provincial red and blue lists. Ministry of Sustainable Resource Management and Water, Land and Air Protection.http://srmwww.gov.bc.ca/atrisk/red-blue.htm
	0			
Score	---			
b) Potential impact of aesthetics (e.g., enrichment of a lake or tainting of food flavor).				
Is there evidence of aesthetic impact to receiving water bodies?	No		Documentation may consist of environmental investigation reports, press articles, petitions or other records.	This Item will require some level of documentation by user, including contact names, addresses, phone numbers, e-mail addresses. Evidence of changes must be documented, please attach copy of report containing relevant information.
Yes No Do Not Know	 0 ---			
Is there evidence of olfactory impact (i.e., unpleasant smell)?	No		Examples of olfactory change can include the smell of a COPC or an increase in the rate of decay in an aquatic habitat.	
Yes No Do Not Know	 0 ---			
Is there evidence of increase in plant growth in the lake or water body?	No		A distinct increase of plant growth in an aquatic environment may suggest enrichment. Nutrients e.g., nitrogen or phosphorous releases to an aquatic body can act as a fertilizer.	
Yes No Do Not Know	 0 ---			
Is there evidence that fish or meat taken from or adjacent to the site smells or tastes different?	No		Some contaminants can result in a distinctive change in the way food gathered from the site tastes or smells.	
Yes No Do Not Know	0 ---			
Ecological Modifying Factors Total - Known	**0**			
Ecological Modifying Factors Total - Potential	**---**			
Raw Ecological Total - Known	0			
Raw Ecological Total - Potential	11			
Raw Ecological Total	11			
Ecological Total (Max 18)	**11.0**			
5. Other Potential Contaminant Receptors				
a) Exposure of permafrost (leading to erosion and structural concerns)				Plants and lichens provide a natural insulating layer which will help prevent thawing of the permafrost during the summer. Plants and lichens may also absorb less solar radiation. Solar radiation is turned into heat which can also cause underlying permafrost to melt.
Are there improvements (roads, buildings) at the site dependant upon the permafrost for structural integrity?	Do Not Know		Consult engineering reports, site plans or air photos of the site. When permafrost melts, the stability of the soil decreases, leading to erosion. Human structures, such as roads and/or buildings are often dependent on the stability that the permafrost provides.	
Yes No Do Not Know	 --- 2			
Is there a physical pathway which can transport soils released by damaged permafrost to a nearby aquatic environment?	No		Melting permafrost leads to a decreased stability of underlying soils. Wind or surface run-off erosion can carry soils into nearby aquatic habitats. The increased soil loadings into a river can cause an increase in total dissolved solids and a resulting decrease in aquatic habitat quality. In addition, the erosion can bring contaminants from soils to aquatic environments.	
Yes No Do Not Know	 0 ---			
Other Potential Receptors Total - Known	**0**			
Other Potential Receptors Total - Potential	**2**			

Exposure Total	
Raw Human Health + Ecological Total - Known	6
Raw Human Health + Ecological Total - Potential	25
Raw Total	31
Exposure Total (max 34)	**22.9**

Only includes "Allowed potential" - if a "Known" score was supplied under a given category then the "Potential" score was not included.

CCME National Classification System (2008)
Score Summary

Scores from individual worksheets are tallied in this worksheet.
Refer to this sheet after filling out the revised NCS completely.

I. Contaminant Characteristics	Known	Potential
1. Residency Media	4	---
2. Chemical Hazard	8	---
3. Contaminant Exceedance Factor	4	---
4. Contaminant Quantity	9	---
5. Modifying Factors	6	---
Raw Total Score	31	0
Raw Total Score (Known + Potential)	31	
Adjusted Total Score (Raw Total / 40 *33)	**25.6**	(max 33)

II. Migration Potential	Known	Potential
1. Groundwater Movement	12	---
2. Surface Water Movement	---	7.9
3. Soil	12	---
4. Vapour	---	8
5. Sediment Movement	---	6
6. Modifying Factors	0	0
Raw Total Score	24	21.9
Raw Total Score (Known + Potential)	45.9	
Adjusted Total Score (Raw Total / 64 * 33)	**23.7**	(max 33)

III. Exposure	Known	Potential
1. Human Receptors		
A. Known Impact	---	
B Potential		
a. Land Use		1
b. Accessibility		2
c. Exposure Route		
i. Direct Contact		3
ii. Inhalation		3
iii. Ingestion		3
2. Human Receptors Modifying Factors	6	---
Raw Total Human Score	6	12
Raw Total Human Score (Known + Potential)	18	
Adjusted Total Human Score	18.0	(maximum 22)
3. Ecological Receptors		
A. Known Impact	---	
B. Potential		
a. Terrestrial		6.5
b. Aquatic		4.5
4. Ecological Receptors Modifying Factors	0	---
Raw Total Ecological Score	0	11
Raw Total Ecological Score (Known + Potential)	11	
Adjusted Total Ecological Score	11.0	(maximum 18)
5. Other Receptors	0	2
Total Other Receptors Score (Known + Potential)	2	
Total Exposure Score (Human + Ecological + Other)	**31.0**	
Adjusted Total Exposure Score (Total Exposure / 46 * 34)	**22.9**	(max 34)

Site Score

Firefighter Training Area

Site Letter Grade	**C**
Certainty Percentage	**69%**
% Responses that are "Do Not Know"	**5%**
Total NCSCS Score for site	**72.2**
Site Classification Category	**1**

Site Classification Categories*:

Class 1 - High Priority for Action (Total NCS Score >70)
Class 2 - Medium Priority for Action (Total NCS Score 50 - 69.9)
Class 3 - Low Priority for Action (Total NCS Score 37 - 49.9)
Class N - Not a Priority for Action (Total NCS Score <37)
Class INS - Insufficient Information (>15% of responses are "Do Not Know")

* NOTE: The term "action" in the above categories does not necessarily refer to remediation, but could also include risk assessment, risk management or further site characterization and data collection.

CCME National Classification System for Contaminated Sites (2008)
Pre-Screening Checklist

Question	Response (yes / no)	Comment
1. Are **Radioactive material**, **Bacterial contamination** or **Biological hazards** likely to be present at the site?	No	If yes, do not proceed through the NCSCS. Contact applicable regulatory agency immediately.
2. Are there **no contamination exceedances** (known or suspected)? Determination of exceedances may be based on: 1) CCME environmental quality guidelines; 2) equivalent provincial guidelines/standards if no CCME guideline exists for a specific chemical in a relevant medium; or 3) toxicity benchmarks derived from the literature for chemicals not covered by CCME or provincial guidelines/standards.	No	If yes (i.e., there are no exceedances), do not proceed through the NCSCS.
3. Have **partial/incompleted or no environmental site investigations** been conducted for the Site?	No	If yes, do not proceed through the NCSCS.
4. Is there direct and signficant evidence of **impacts to humans** at the site, or off-site due to migration of contaminants from the site?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
5. Is there direct and significant evidence of **impacts to ecological receptors** at the site, or off-site due to migration of contaminants from the site?	No	Some low levels of impact to ecological receptors are considered acceptable, particularly on commercial and industrial land uses. However, if ecological effects are considered to be severe, the site may be categorized as Class 1, regardless of the numerical total NCSCS score. For the purpose of application of the NCSCS, effects that would be considered severe include observed effects on survival, growth or reproduction which could threaten the viability of a population of ecological receptors at the site. Other evidence that qualifies as severe adverse effects may be determined based on professional judgement and in consultation with the relevant jurisdiction.
6. Are there indicators of significant **adverse effects in the exposure zone** (i.e., the zone in which receptors may come into contact with contaminants)? Some examples are as follows: -Hydrocarbon sheen or NAPL in the exposure zone -Severely stressed biota or devoid of biota; -Presence of material at ground surface or sediment with suspected high concentration of contaminants such as ore tailings, sandblasting grit, slag, and coal tar.	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
7. Do measured concentrations of volatiles or unexploded ordnances represent an **explosion hazard**?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, and do not continue until the safety risks have been addressed. Consult your jurisdiction's occupational health and safety guidance or legislation on exposive hazards and measurement of lower explosive limits.

If none of the above applies, proceed with the NCSCS scoring.

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

Subject Site:	**Former F.H. Ross Tank Site**	
Civic Address: *(or other description of location)*	Cambridge Bay Airport, Cambridge Bay, NT	
Site Common Name : *(if applicable)*	Former F.H. Ross Tank Site (AEC 4)	
Site Owner or Custodian: *(Organization and Contact Person)*	Governement of Nunavut Shawn Maley (Director, Nunavut Airports) 867-645-8203	
Legal description *or* metes and bounds:	Lot 1004, QUAD77/D2, 79787 CLSR, 2958LTO	
Approximate Site area:	3,500 m2	
PID(s) : *(or Parcel Identification Numbers [PIN] if untitled Crown land)*	N/A	
Centre of site: *(provide latitude/longitude or UTM coordinates)*	Latitude: Longitude:	__69__ degrees __02_ min __22.42__ secs __105_ degrees __07__ min __09.79__ secs
	UTM Coordinate:	
Site Land Use:	Current:	Commercial
	Proposed:	Commercial
Site Plan	**To delineate the bounds of the Site a site plan MUST be attached. The plan must be drawn to scale indicating the boundaries in relation to well-defined reference points and/or legal descriptions. Delineation of the contamination should also be indicated on the site plan.**	
Provide a brief description of the Site:	F.H. Ross and Associates who conductare responsible for airport maintenance and aircraft fuelling. They formerly operated. Their current fuel storage facility is east of the runway. 3 bulk fuel ASTs The tanks were relocated to that area in 1992. Prior to that, the tank site was across the service gravel roadabout #m south of the ATB. The ASTs were decommissioned in 1992 ; however, no formal decommissioning procedures were followed at the time of when the ASTs were relocated about 30m to the southeast ion (Dillon, 1995). I Also, iInformation regarding the former infrastructure was not available; however , the replacement system consists of three 100,000L ASTs containing Avgas and Jet B fuel.	

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

Affected media and Contaminants of Potential Concern (COPC):	Affected Media: Soil and groundwater COPC: BTEX, F1-F4, PAH and Metals.

Please fill in the "letter" that best describes the level of information available for the site being assessed

Site Letter Grade **C**

If letter grade is F, do not continue, you must have a minimum of a Phase I Environmental Site Assessment or equivalent.

Scoring Completed By:	**Viviane Dubois-Cote**
Date Scoring Completed:	**19-Jan-10**

CCME National Classification System (2008)

(I) Contaminant Characteristics

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method of Evaluation	Notes
1. Residency Media (replaces physical state)				
Which of the following residency media are known (or strongly suspected) to have one or more exceedances of the applicable CCME guidelines? **yes** = has an exceedance or strongly suspected to have an exceedance **no** = does not have an exceedance or strongly suspected not to have an exceedance			The overall score is calculated by adding the individual scores from each residency media (having one or more exceedance of the most conservative media specific and land-use appropriate CCME guideline). Summary tables of the Canadian Environmental Quality Guidelines for soil, water (aquatic life, non-potable groundwater environments, and agricultural water uses) and sediment are available on the CCME website at http://www.ccme.ca/publications/ceqg_rcqe.html?category_id=124. For potable groundwater environments, guidelines for Canadian Drinking Water Quality (for comparison with groundwater monitoring data) are available on the Health Canada website at http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/sum_guide-res_recom/index_e.html.	An increasing number of residency media containing chemical exceedances often equates to a greater potential risk due to an increase in the number of potential exposure pathways.
A. Soil	Yes	Soil assessed against CCME guidelines and exceedances found. Groundwater assessed agains BC CSR AW (Marine Life) standards and exceedances found. In the absence of federal guidelines to assess the quality of groundwater at the site, water analytical results were compared against British Columbia Contaminated Sites Regulation (BC CSR) Standards. Standards from BC were selected over other nearby provinces as BC regulations include groundwater discharges to both freshwater and marine receptors. Surface water assessed against CCME guidelines and exceedances found. No sediment on site.		
Yes No Do Not Know				
B. Groundwater	Yes			
Yes No Do Not Know				
C. Surface water	No			
Yes No Do Not Know				
D. Sediment	No			
Yes No Do Not Know				
"Known" -score	4			
"Potential" - score	---			
2. Chemical Hazard				
What is the relative degree of chemical hazard of the contaminant in the list of hazard rankings proposed by the Federal Contaminated Sites Action Plan (FCSAP)?	High	BTEX, Naphthalene, F1-F4 Fraction and Pb in soil; Naphthalene and Zn in groundwater; Al in surface water. CCME National Classification system (2008) Document, Appendix VI, Table VI.1 - Hazard ranking of contaminants	The relative degree of chemical hazard should be selected based on the most hazardous contaminant known or suspected to be present at the site. The degree of hazard has been defined by the Federal Contaminated Sites Action Plan (FCSAP) and a list of substances with their associated hazard (Low, Medium and High) has been provided as a separate sheet in this file. *See Attached Reference Material for Contaminant Hazard Rankings.*	Hazard as defined in the revised NCS pertains to the physical properties of a chemical which can cause harm. Properties can include toxic potency, propensity to biomagnify, persistence in the environment, etc. Although there is some overlap between hazard and contaminant exceedance factor below, it will not be possible to derive contaminant exceedance factors for many substances which have a designated chemical hazard designation, but don't have a CCME guideline. The purpose of this category is to avoid missing a measure of toxic potential.
High Medium Low Do Not Know				
"Known" -score	8			
"Potential" - score	---			
3. Contaminant Exceedence Factor				
What is the ratio between the measured contaminant concentration and the applicable CCME guidelines (or other "standards")?	High (>100x)	• Exceedances between 1X and 10 X CCME guidelines for soil: Benzene at 4A-09TP-3M, 4A-09TP-4, 4A-09-TP5 and 4A-09-TP-8 (0.5-2.0m) = max 4.6 ug/g Toluene at 4A-09TP-3M, 4A-09TP-4 and 4A-09-TP5 (0.5-2.0m) = max 37.0 ug/g Ethylbenzene at 4A-09TP-3M, 4A-09TP-4 and 4A-09-TP5 (0.5-2.0m) = max 6.8 ug/g Xylenes at 4A-09TP-3M, 4A-09TP-4 and 4A-09-TP5 (0.5-2.0m) = max 140 ug/g Naphthalene at 4A-09TP-3M, 4A-09TP-4 and 4A-09-TP5 (0.5-2.0m) = max 13.0 ug/g F1 at 4A-09TP-3M, 4A-09TP-4 and 4A-09-TP5 (0.5-2.0m) = max 4,700 ug/g F2 at 4A-09TP-3M, 4A-09TP-4 and 4A-09-TP5 (0.5-2.0m) = max 12,000 ug/g F3 at 4A-09TP-5 (1.3-1.5m) = 6,400 ug/g F4 at 4A-09TP-5 (1.3-1.5m) = 3,900 ug/g Pb at 4A-09TP-5 (1.3-1.5m) = 294 ug/g • Exceedances between 1X and 100X BC CSR AW (Marine Life) standard in groundwater: Naphthalene at 4A-09-3M = 14 ug/L Zinc at 4A-09-3M = 280 ug/L	Ranking of contaminant "exceedance" is determined by comparing contaminant concentrations with the *most conservative media-specific and land-use appropriate CCME* environmental quality guidelines. **Ranking should be based on contaminant with greatest exceedance of CCME guidelines.** Ranking of contaminant hazard as high, medium and low is as follows: High = One or more measured contaminant concentration is greater than 100 X appropriate CCME guidelines Medium = One or more measured contaminant concentration is 10 - 99.99 X appropriate CCME guidelines Low = One or more measured contaminant concentration is 1 - 9.99 X appropriate CCME guidelines Mobile NAPL = Contaminant is a non-aqueous phase liquid (i.e., due to its low solubility, it does not dissolve in water, but remains as a separate liquid) and is present at a sufficiently high saturation (i.e., greater than residual NAPL saturation) such that there is significant potential for mobility either downwards or laterally. Other standards may include local background concentration or published toxicity benchmarks. Results of toxicity testing with site samples can be used as an alternative. This approach is only relevant for contaminants that do not biomagnify in the food web, since toxicity tests would not indicate potential effects at higher trophic levels. High = lethality observed. Medium = no lethality, but sub lethal effects observed. Low = neither lethal nor sub lethal effects observed.	In the event that elevated levels of a material with no associated CCME guidelines are present, check provincial and USEPA environmental criteria. Hazard Quotients (sometimes referred to as a screening quotient in risk assessments) refer to the ratio of measured concentration to the concentration believed to be the threshold for toxicity. A similar calculation is used here to determine the contaminant exceedance factor (CEF). Concentrations greater than one times the applicable CCME guideline (i.e., CEF=>1) indicate that risks are possible. Mobile NAPL has the highest associated score (8) because of its highly concentrated nature and potential for increase in the size of the impacted zone.
Mobile NAPL High (>100x) Medium (10x to 100x) Low (1x to 10x) Do Not Know				
"Known" -score	6			
"Potential" - score	---			

CCME National Classification System (2008)

(I) Contaminant Characteristics

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method of Evaluation	Notes
4. Contaminant Quantity (known or strongly suspected)				
What is the known or strongly suspected quantity of all contaminants? >10 hectare (ha) or 5000 m^3 2 to 10 ha or 1000 to 5000 m^3 <2 ha or 1000 m^3 Do Not Know	>10 hectare (ha) or 5000 m3	Based on Phase II/III ESA conducted by Franz. (Phase II/III Environmental Site Assessment, Cambridge Bay Airport, Cambridge Bay - DRAFT, Franz Environmental Inc. 2010)	Measure or estimate the area or quantity of total contamination (i.e, all contaminants known or strongly suspected to be present on the site). The "Area of Contamination" is defined as the area or volume of contaminated media (soil, sediment, groundwater, surface water) exceeding appropriate environmental criteria.	A larger quantity of a potentially toxic substance can result in a larger frequency of exposure as well as a greater probability of migration, therefore, larger quantities of these substances earn a higher score.
"Known" -score	9			
"Potential" - score	---			
5. Modifying Factors				
Does the chemical fall in the class of persistent chemicals based on its behavior in the environment? Yes No Do Not Know	Yes	Pb is persistent in the environment (http://www.inchem.org/documents/ehc/ehc/ehc003.htm)	Persistent chemicals, e.g., PCBs, chlorinated pesticides etc. either do not degrade or take longer to degrade, and therefore may be available to cause effects for a longer period of time. Canadian Environmental Protection Act (CEPA) classifies a chemical as persistent when it has at least one of the following characteristics: (a) in air, (i) its half-life is equal to or greater than 2 days, or (ii) it is subject to atmospheric transport from its source to a remote area; (b) in water, its half-life is equal to or greater than 182 days; (c) in sediments, its half-life is equal to or greater than 365 days; or (d) in soil, its half-life is equal to or greater than 182 days. This list does not include metals or metalloids, which in their elemental form do not degrade. However metals and metalloids form chemical species in the environment, many of which are not readily bioavailable.	*Examples of Persistent Substances are provided in attached Reference Materials*
Are there contaminants present that could cause damage to utilities and infrastructure, either now or in the future, given their location? Yes No Do Not Know	Yes	Hydrocarbons in soil		Some contaminants may react or absorb into underground utilities and infrastructure. For example, organic solvents may degrade some plastics, and salts could cause corrosion of metal.
How many different contaminant classes have representative CCME guideline exceedances? one two to four five or more Do Not Know	two to four	Metals, BTEX, PAH	For the purposes of the revised NCS ranking system, the following chemicals represent distinct chemical "classes": inorganic substances (including metals), volatile petroleum hydrocarbons, light extractable petroleum hydrocarbons, heavy extractable petroleum hydrocarbons, PAHs, phenolic substances, chlorinated hydrocarbons, halogenated methanes, phthalate esters, pesticides.	*Refer to the Reference Material sheet for a list of example substances that fall under the various chemical classes.*
"Known" - Score	6			
"Potential" - Score	---			

Contaminant Characteristic Total

Raw Total Scores- "Known"	33
Raw Total Scores- "Potential"	0
Raw Combined Total Scores	33
Total Score (Raw Combined / 40 * 33)	**27.2**

(II) Migration Potential (Evaluation of contaminant migration pathways)

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
1. Groundwater Movement				
A. Known COPC exceedances and an operable groundwater pathway within and/or beyond the property boundary.				
i) For **potable groundwater environments**, 1) groundwater concentrations exceed background concentrations and 1 X the Guideline for Canadian Drinking Water Quality (GCDWQ) or 2) there is known contact of contaminants with groundwater, based on physical evidence of groundwater contamination. For **non-potable environments** (typically urban environments with municipal services), 1) groundwater concentrations exceed 1X the applicable non potable guidelines or modified generic guidelines (which exclude ingestion of drinking water pathway) or 2) there is known contact of contaminants with groundwater, based on physical evidence of groundwater impacts. ii) Same as (i) except the information is not known but strongly suspected based on indirect observations. iii) Meets GCDWQ for **potable environments**; meets non-potable criteria or modified generic criteria (excludes ingestion of drinking water pathway) for **non-potable environments** **or** Absence of groundwater exposure pathway (i.e., there is no aquifer (see definition at right) at the site or there is an adequate isolating layer between the aquifer and the contamination, and within 5 km of the site there are no aquatic receiving environments and the groundwater does not daylight).	12 9 0 12 Score 12	Groundwater exceeds BC CSR Aquatic Life (Marine Life) standard for Naphthalene (4A-09-3M) and Zn (4A-09-2M)	Review chemical data and evaluate groundwater quality. The evaluation method concentrates on 1) a potable or non-potable groundwater environment; 2) the groundwater flow system and its potential to be an exposure pathway to known or potential receptors An aquifer is defined as a geologic unit that yields groundwater in usable quantities and drinking water quality. The aquifer can currently be used as a potable water supply or could have the potential for use in the future. Non-potable groundwater environments are defined as areas that are serviced with a reliable alternative water supply (most commonly provided in urban areas). The evaluation of a non-potable environment will be based on a site specific basis. Physical evidence includes significant sheens, liquid phase contamination, or contaminant saturated soils. Seeps and springs are considered part of the groundwater pathway. In Arctic environments, the potability and evaluation of the seasonal active layer (above the permafrost) as a groundwater exposure pathway will be considered on a site-specific basis.	The 1992 NCS rationale evaluated the off-site migration as a regulatory issue. The exposure assessment and classification of hazards should be evaluated regardless of the property boundaries. Someone experienced must provide a thorough description of the sources researched to determine the presence/absence of a groundwater supply source in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resources such as internet links. Note that for potable groundwater that also daylights into a nearby surface water body, the more stringent guidelines for both drinking water and protection of aquatic life should be considered. **Selected References** Potable Environments Guidelines for Canadian Drinking Water Quality: www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/sum_guide-res_recom/index_e.html Non-Potable Environments Canadian Water Quality Guidelines for Protection of Aquatic Life. CCME. 1999 www.ccme.ca Compilation and Review of Canadian Remediation Guidelines, Standards and Regulations. Science Applications International Corporation (SAIC Canada), report to Environment Canada, January 4, 2002.
NOTE: If a score is assigned here for Known COPC Exceedances, then you can skip Part B (Potential for groundwater pathway) and go to Section 2 (Surface Water Pathway)				
B. Potential for groundwater pathway.				
a. Relative Mobility High Moderate Low Insignificant Do Not Know	Do Not Know Score 2	Not scored	Organics: Koc < 500 (i.e., log Koc < 2.7); Koc = 500 to 5000 (i.e., log Koc = 2.7 to 3.7); Koc = 5,000 to 100,000 (i.e., log Koc = 3.7 to 5); Koc > 100,000 (i.e., log Koc > 5) Metals with higher mobility: pH < 5; pH = 5 to 6; pH > 6 Metals with higher: pH > 8; pH = 7; pH <	Reference: US EPA Soil Screening Guidance (Part 5 - Table 39) If a score of zero is assigned for relative mobility, it is still recommended that the following sections on potential for groundwater pathway be evaluated and scored. Although the Koc of an individual contaminant may suggest that it will be relatively immobile, it is possible that, **with complex mixtures, there could be enhanced mobility due to co-solvent effects.** Therefore, the Koc cannot be relied on solely as a measure of mobility. An evaluation of other factors such as containment, thickness of confining layer, hydraulic conductivities and precipitation infiltration rate are still useful in predicting potential for groundwater migration, even if a contaminant is expected to have insignificant mobility based on its chemistry alone.
b. Presence of engineered sub-surface containment? No containment Partial containment Full containment Do Not Know	Do Not Know Score 1.5	Not scored	Review the existing engineered systems or natural attenuation processes for the site and determine if full or partial containment is achieved. Full containment is defined as an engineered system or natural attenuation processes, monitored as being effective, which provide for full capture and/or treatment of contaminants. All chemicals of concern must be contained for "Full Containment" scoring. Natural attenuation must have sufficient data, and reports cited with monitoring data to support steady state conditions and the attenuation processes. If there is no containment or insufficient natural attenuation process, this category is evaluated as high. If there is less than full containment or if uncertain, then evaluate as medium. In Arctic environments, permafrost will be evaluated, as appropriate, based on detailed evaluations, effectiveness and reliability to contain/control contaminant migration.	Someone experienced must provide a thorough description of the sources researched to determine the containment of the source at the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps, geotechnical reports or natural attenuation studies and other resources such as internet links. **Selected Resources:** United States Environmental Protection Agency (USEPA) 1998. Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater. EPA/600/R-98/128. Environment Canada – Ontario Region – Natural Attenuation Technical Assistance Bulletins (TABS) Number 19 –21.
c. Thickness of confining layer over aquifer of concern or groundwater exposure pathway 3 m or less including no confining layer or discontinuous confining layer 3 to 10 m > 10 m Do Not Know	Do Not Know Score 0.5	Not scored	The term "confining layer" refers to geologic material with little or no permeability or hydraulic conductivity (such as unfractured clay); water does not pass through this layer or the rate of movement is extremely slow. Measure the thickness and extent of materials that will impede the migration of contaminants to the groundwater exposure pathway. The evaluation of this category is based on: 1) The presence and thickness of saturated subsurface materials that impede the vertical migration of contaminants to lower aquifer units which can or are used as drinking water sources or 2) The presence and thickness of unsaturated subsurface materials that impede the vertical migration of contaminants from the source location to the saturated zone (e.g., water table aquifer, first hydrostratigraphic unit or other groundwater	
d. Hydraulic conductivity of confining layer >10^{-4} cm/s or no confining layer 10^{-4} to 10^{-6} cm/s <10^{-6} cm/s Do Not Know	Do Not Know Score 0.5	Not scored	Determine the nature of geologic materials and estimate hydraulic conductivity from published material (or use "Range of Values of Hydraulic Conductivity and Permeability" figure in the Reference Material sheet). Unfractured clays should be scored low. Silts should be scored medium. Sand, gravel should be scored high. The evaluation of this category is based on: 1) The presence and hydraulic conductivity ("K") of saturated subsurface materials that impede the vertical migration of contaminants to lower aquifer units which can or are used as a drinking water source, groundwater exposure pathway or 2) The presence and permeability ("k") of unsaturated subsurface materials that	
B. Potential for groundwater pathway.				
e. Precipitation infiltration rate			Precipitation Refer to Environment Canada precipitation records for relevant areas. Divide	

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
(Annual precipitation factor x surface soil relative permeability factor) High Moderate Low Very Low None Do Not Know	Do Not Know	Not scored	annual precipitation by 1000 and round to nearest tenth (e.g., 667 mm = 0.7 score). Permeability For surface soil relative permeability (i.e., infiltration) assume: gravel (1), sand (0.6), loam (0.3) and pavement or clay (0). Multiply the surface soil relative permeability factor with precipitation factor to obtain the score for precipitation infiltration rate.	
Score	0.4			
f. Hydraulic conductivity of aquifer $>10^{-2}$ cm/s 10^{-2} to 10^{-4} cm/s $<10^{-4}$ cm/s Do Not Know	Do Not Know	Not scored	Determine the nature of geologic materials and estimate hydraulic conductivity of all aquifers of concern from published material (refer to "Range of Values of Hydraulic Conductivity and Permeability" in the Reference Material sheet).	
Score	1			
Potential groundwater pathway total	5.9			
Allowed Potential score	---	Note: If a "known" score is provided, the "potential" score is disallowed.		
Groundwater pathway total	**12**			
2. Surface Water Movement				
A. Demonstrated migration of COPC in surface water above background conditions				
Known concentrations of surface water: i) Concentrations exceed background concentrations and exceed CCME CWQG for protection of aquatic life, irrigation, livestock water, and/or recreation (whichever uses are applicable at the site) by >1 X; or There is known contact of contaminants with surface water based on site observations. or In the absence of CWQG, chemicals have been proven to be toxic based on site specific testing (e.g. toxicity testing; or other indicator testing of exposure).	12	Al exceedance in surface water at 4-09-SW1	Collect all available information on quality of surface water near to site. Evaluate available data against Canadian Water Quality Guidelines (select appropriate guidelines based on local water use, e.g., recreation, irrigation, aquatic life, livestock watering, etc.). The evaluation method concentrates on the surface water flow system and its potential to be an exposure pathway. Contamination is present on the surface (above ground) and has the potential to impact surface water bodies. Surface water is defined as a water body that supports one of the following uses: recreation, irrigation, livestock watering, aquatic life.	General Notes: Someone experienced must provide a thorough description of the sources researched to classify the surface water body in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resource such as internet links. Selected References: CCME. 1999. Canadian Water Quality Guidelines for the Protection of Aquatic Life www.ccme.ca CCME. 1999. Canadian Water Quality Guidelines for the Protection of Agricultural Water Uses (Irrigation and Livestock Water) www.ccme.ca Health and Welfare Canada. 1992. Guidelines for Canadian Recreational Water Quality.
ii) Same as (i) except the information is not known but strongly suspected based on indirect observations.	8			
iii) Meets CWQG or absence of surface water exposure pathway (i.e., Distance to nearest surface water is > 5 km.)	0			
	12			
Score	12			
NOTE: If a score is assigned here for Demonstrated Migration in Surface Water, then you can skip Part B (Potential for migration of COPCs in surface water) and go to Section 3 (Surface Soils)				

(II) Migration Potential (Evaluation of contaminant migration pathways)

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for migration of COPCs in surface water				
a. Presence of containment No containment Partial containment Full containment Do Not Know		Not scored	Review the existing engineered systems and relate these structures to site conditions and proximity to surface water and determine if full containment is achieved: score low if there is full containment such as capping, berms, dikes; score medium if there is partial containment such as natural barriers, trees, ditches, sedimentation ponds; score high if there are no intervening barriers between the site and nearby surface water. Full containment must include	
	Do Not Know			
Score	3			
b. Distance to Surface Water 0 to <100 m 100 - 300 m >300 m Do Not Know		Not scored	Review available mapping and survey data to determine distance to nearest surface water	
	Do Not Know			
Score	2			
c. Topography Contaminants above ground level and slope is steep Contaminants at or below ground level and slope is steep Contaminants above ground level and slope is intermediate Contaminants at or below ground level and slope is intermediate Contaminants above ground level and slope is flat Contaminants at or below ground level and slope is flat Do Not Know		Not scored	Review engineering documents on the topography of the site and the slope of surrounding terrain. Steep slope = >50% Intermediate slope = between 5 and 50% Flat slope = < 5% Note: Type of fill placement (e.g., trench, above ground, etc.).	
	Do Not Know			
Score	1			
d. Run-off potential High (rainfall run-off score > 0.6) Moderate (0.4 < rainfall run-off score <0.6) Low (0.2 < rainfall run-off score <0.4) Very Low (0 < rainfall run-off score < 0.2) None (rainfall run-off score = 0) Do Not Know		Not scored	Rainfall Refer to Environment Canada precipitation records for relevant areas. Divide rainfall by 1000 and round to nearest tenth (e.g., 667 mm = 0.7 score). The former definition of "annual rainfall" did not include the precipitation as snow. This minor adjustment has been made. The second modification was the inclusion of permeability of surface materials as an evaluation factor. Permeability For infiltration assume: gravel (0), sand (0.3), loam (0.6) and pavement or clay (1). Multiply the infiltration factor with precipitation factor to obtain rainfall run-off score	Selected Sources: Environment Canada web page link: www.msc.ec.gc.ca Snow to rainfall conversion apply ratio of 15 (snow):1(water)
	Do Not Know			
Score	0.4			
e. Flood potential 1 in 2 years 1 in 10 years 1 in 50 years Do Not Know		Not scored	Review published data such as flood plain mapping or flood potential (e.g., spring or mountain run-off) and Conservation Authority records to evaluate flood potential of nearby water courses both up and down gradient. Rate zero if site not in flood plain.	
	Do Not Know			
Score	0.5			
Potential surface water pathway total	6.9			
Allowed Potential score	---	Note: If a "known" score is provided, the "potential" score is disallowed.		
Surface water pathway total	**12**			
3. Surface Soils (potential for dust, dermal and ingestion exposure)				
A. Demonstrated concentrations of COPC in surface soils (top 1.5 m)				
COPCs measured in surface soils exceed the CCME soil quality guideline.	12		Collect all available information on quality of surface soils (i.e., top 1.5 metres) at the site. Evaluate available data against Canadian Soil Quality Guidelines. Select appropriate guidelines based on current (or proposed future) land use (i.e, agricultural, residential/parkland, commercial, or industrial), and soil texture if applicable (i.e., coarse or fine).	Selected References: CCME. 1999. Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health www.ccme.ca
Strongly suspected that soils exceed guidelines	9	Naphthalene, BTEX, F1-F4 fraction (4A-09-3M, 4A-09-4, 4A-09-5 and 4A-09-8 @ 0-2m) and Pb (4A-09-5 @ 0.5-1.5m) exceed applicable CCME guideline in soil		
COPCs in surface soils does not exceed the CCME soil quality guideline or is not present (i.e., bedrock).	0			
	12			
Score	12			
NOTE: If a score is assigned here for Demonstrated Concentrations in Surface Soils, then you can skip Part B (Potential for a surface soils migration pathway) and go to Section 4 (Vapour)				
B. Potential for a surface soils (top 1.5 m) migration pathway				
a. Are the soils in question covered? Exposed Vegetated Landscaped Paved Do Not Know		Not scored	Consult engineering or risk assessment reports for the site. Alternatively, review photographs or perform a site visit. Landscaped surface soils must include a minimum of 0.5 m of topsoil.	The possibility of contaminants in blowing snow have not been included in the revised NCS as it is difficult to assess what constitutes an unacceptable concentration and secondly, spills to snow or ice are most efficiently mitigated while freezing conditions remain.
	Do Not Know			
Score	4			
b. For what proportion of the year does the site remain covered by snow? 0 to 10% of the year 10 to 30% of the year More than 30% of the year Do Not Know		Not scored	Consult climatic information for the site. The increments represent the full span from soils which are always wet or covered with snow (and therefore less likely to generate dust) to those soils which are predominantly dry and not covered by snow (and therefore are more likely to generate dust).	
	Do Not Know			
Score	3			
Potential surface soil pathway total	7			
Allowed Potential score	---	**Note: If a "known" score is provided, the "potential" score is disallowed.**		
Soil pathway total	**12**			

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
4. Vapour				
A. Demonstrated COPCs in vapour.				
Vapour has been measured (indoor or outdoor) in concentrations exceeding risk based concentrations.	12	Vapour not assessed	Consult previous investigations, including human health risk assessments, for reports of vapours detected.	
Strongly suspected (based on observations and/or modelling)	9			
Vapour has not been measured and volatile hydrocarbons have not been found in site soils or groundwater.	0			
	Go to Potentia			
Score	---			
NOTE: If a score is assigned here for Demonstrated COPCs in Vapour, then you can skip Part B (Potential for COPCs in vapour) and go to Section 5 (Sediment)				
B. Potential for COPCs in vapour				
a. Relative Volatility based on Henry's Law Constant, H' (dimensionless) High (H' > 1.0E-1) Moderate (H' = 1.0E-1 to 1.0E-3) Low (H' < 1.0E-3) Not Volatile Do Not Know		Benzene (H'= 2.28E-01) Toluene (H'= 6.64E-03) Ethylbenzene (H' = 3.23E-01) Xylenes (H'= 2.13 - 3.23E-01) Naphthalene (H' = 1.98E-02) CCME National Classification system (2008) Document, Appendix VI, Table VI.4 - Chemical-specific properties.	Reference: US EPA Soil Screening Guidance (Part 5 - Table 36) *Provided in Attached Reference Materials*	If the Henry's Law Constant for a substance indicates that it is not volatile, and a score of zero is assigned here for relative volatility, then the other three questions in this section on Potential for COPCs will be automatically assigned scores of zero and you can skip to section 5.
	High			
Score	4			
b. What is the soil grain size? Fine Coarse Do Not Know		Silty sand to sand and gravel described by Franz during site investigation in 2009. Coarse used as a measure of conservatism.	Review soil permeability data in engineering reports. The greater the permeability of soils, the greater the possible movement of vapours. Fine-grained soils are defined as those which contain greater than 50% by mass particles less than 75 µm mean diameter (D50 < 75 µm). Coarse-grained soils are defined as those which contain greater than 50% by mass particles greater than 75 µm mean diameter (D50 > 75 µm).	
	Coarse			
Score	4			
c. Is the depth to the source less than 10m? Yes No Do Not Know		Contaminated soil found from 0 to 2 m.	Review groundwater depths below grade for the site.	
	Yes			
Score	2			
d. Are there any preferential pathways? Yes No Do Not Know		Buried pipe crossing the site going to FH Ross Tank Site accross the road. Buried cables along the road alonside the site.	Visit the site during dry summer conditions and/or review available photographs. Where bedrock is present, fractures would likely act as preferential pathyways.	Preferential pathways refer to areas where vapour migration is more likely to occur because there is lower resistance to flow than in the surrounding materials. For example, underground conduits such as sewer and utility lines, drains, or septic systems may serve as preferential pathways. Features of the building itself that may also be preferential pathways include earthen floors, expansion joints, wall cracks, or foundation perforations for subsurface features such as utility pipes, sumps, and drains.
	Yes			
Score	2			
Potential vapour pathway total	12			
Allowed Potential score	12	Note: If a "known" score is provided, the "potential" score is disallowed.		
Vapour pathway total	**12**			
5. Sediment Movement				
A. Demonstrated migration of sediments containing COPCs				
There is evidence to suggest that sediments originally deposited to the site (exceeding the CCME sediment quality guidelines) have migrated.	12	No sediment on site.	Review sediment assessment reports. Evidence of migration of contaminants in sediments must be reported by someone experienced in this area.	Usually not considered a significant concern in lakes/marine environments, but could be very important in rivers where transport downstream could be significant.
Strongly suspected (based on observations and/or modelling)	9			
Sediments have been contained and there is no indication that sediments will migrate in future. **or** Absence of sediment exposure pathway (i.e., within 5 km of the site there are no aquatic receiving environments, and therefore no sediments).	0			
	Go to Potentia			
Score	---			
NOTE: If a score is assigned here for Demonstrated Migration of Sediments, then you can skip Part B (Potential for Sediment Migration) and go to Section 6 (Modifying Factors)				

CCME National Classification System (2008)

(II) Migration Potential (Evaluation of contaminant migration pathways)

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for sediment migration				
a. Are the sediments having COPC exceedances capped with sediments having no exceedances ("clean sediments")?			Review existing sediment assessments. If sediment coring has been completed, it may indicate that historically contaminated sediments have been covered over by newer "clean" sediments. This assessment will require that cores collected demonstrate a low concentration near the top and higher concentration with sediment depth.	
Yes	No			
No				
Do Not Know				
b. For lakes and marine habitats, are the contaminated sediments in shallow water and therefore likely to be affected by tidal action, wave action or propeller wash?	4		Review existing sediment assessments. If the sediments present at the site are in a river, select "no" for this question.	
Yes	Yes			
No				
Do Not Know				
c. For rivers, are the contaminated sediments in an area prone to sediment scouring?	4		Review existing sediment assessments. It is important that the assessment is made under worst case flows (high yearly flows). Under high yearly flows, areas	
Yes	No			
No				
Do Not Know				
	0			
Potential sediment pathway total	8			
Allowed Potential score	8	Note: If a "known" score is provided, the "potential" score is disallowed.		
Sediment pathway total	**8**			
6. Modifying Factors				
Are there subsurface utility conduits in the area affected by contamination?			Consult existing engineering reports. Subsurface utilities can act as conduits for contaminant migration.	
Yes	No			
No				
Do Not Know				
Known	0			
Potential	0			

Migration Potential Total		
Raw "known" total	36	
Raw "potential" total	20.0	Note: If "Known" and "Potential" scores are provided, the checklist defaults to known.
Raw combined total	56.0	Therefore, the total "Potential" Score may not reflect the sum of the individual "Potential"
Total (max 33)	**28.9**	scores.

CCME National Classification System (2008)

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
1. Human				
A. Known exposure				
Documented adverse impact or high quantified exposure which has or will result in an adverse effect, injury or harm or impairment of the safety to humans as a result of the contaminated site. (Class 1 Site*)	22	No human activity onsite	*Where adverse effects on humans are documented, the site should be automatically designated as a Class 1 site (i.e., action required). There is no need to proceed through the NCS in this case. However, a scoring guideline (22) is provided in case a numerical score for the site is still desired (e.g., for comparison with other Class 1 sites). This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients >1 for noncarcinogenic chemicals and incremental cancer risks that exceed acceptable levels defined by the jurisdiction for carcinogenic chemicals (for most jurisdictions this is typically either $>10^{-5}$ or $>10^{-6}$). Known impacts can also be evaluated based on blood testing (e.g. blood lead >10 ug/dL) or other health based testing.	Known adverse impact includes domestic and traditional food sources. Adverse effects based on food chain transfer to humans and/or animals can be scored in this category. However, the weight of evidence must show a direct link of a contaminated food source/supply and subsequent ingestion/transfer to humans. Any associated adverse effects to the environment are scored separately later in this worksheet. Someone experienced must provide a thorough description of the sources researched to evaluate and determine the quantified exposure/impact (adverse effect) in the vicinity of the contaminated site. **Selected References:** Health Canada – Federal Contaminated Site Risk Assessment in Canada Parts 1 and 2 Guidance on Human Heath Screening Level Risk Assessments (www.hc-sc.gc.ca/ewh-semt/pubs/contamsite/index_e.html) United States Environmental Protection Agency, Integrated Risk Information System (IRIS) -http://toxnet.nml.nih.gov
Same as above, but "Strongly Suspected" based on observations or indirect evidence.	10			
No quantified or suspected exposures/impacts in humans.	0			
	Go to Potential			
Score	---			
NOTE: If a score is assigned here for Known Exposure, then you can skip Part B (Potential for Human Exposure) and go to Section 2 (Human Exposure Modifying Factors)				
B. Potential for human exposure				
a) Land use (provides an indication of potential human exposure scenarios) Agricultural Residential / Parkland Commercial Industrial Do Not Know		Site is on airport lands.	Review zoning and land use maps over the distances indicated. If the proposed future land use is more "sensitive" than the current land use, evaluate this factor assuming the proposed future use is in place Agricultural land use is defined as uses of land where the activities are related to the productive capability of the land or facility (e.g., greenhouse) and are agricultural in nature, or activities related to the feeding and housing of animals as livestock. Residential/Parkland land uses are defined as uses of land on which dwelling on a permanent, temporary, or seasonal basis is the activity (residential), as well as uses on which the activities are recreational in nature and require the natural or human designed capability of the land to sustain that activity (parkland). Commercial/Industrial land uses are defined as land on which the activities are related to the buying, selling, or trading of merchandise or services (commercial), as well as land uses which are related to the production, manufacture, or storage of materials (industrial).	This is the main "receptor" factor used in site scoring. A higher score implies a greater exposure and/or exposure of more sensitive human receptors (e.g., children).
	Commercial			
Score	1			
b. Indicate the level of accessibility to the contaminated portion of the site (e.g., the potential for coming in contact with contamination) Limited barriers to prevent site access; contamination not covered Moderate access or no intervening barriers, contaminants are covered. Remote locations in which contaminants not covered. Controlled access or remote location and contaminants are covered Do Not Know			Review location and structures and contaminants at the site and determine if there are intervening barriers between the site and humans. A low rating should be assigned to a (covered) site surrounded by a fence or in a remote location, whereas a high score should be assigned to a site that has no cover, fence, natural barriers or buffer.	
	Access, not covered			
Score	2			
B. Potential for human exposure				
c) Potential for intake of contaminated soil, water, sediment or foods for operable or potentially operable pathways, as identified in Worksheet II (Migration Potential). i) direct contact Is dermal contact with contaminated surface water, groundwater, sediments or soils anticipated? Yes No Do Not Know			If soils or potable groundwater are present exceeding their respective CCME guidelines, dermal contact is assumed. Exposure to surface water, non-potable groundwater or sediments exceeding their respective CCME guidelines will depend on the site. Select "Yes" if dermal exposure to surface water, non-potable groundwater or sediments is expected. For instance, dermal contact with sediments would not be expected in an active port. Only soils in the top 1.5 m are defined by CCME (2003) as surface soils. If contaminated soils are only located deeper than 1.5 m, direct contact with soils is not anticipated to be an operable contaminant exposure pathway.	Exposure via the skin is generally believed to be a minor exposure route. However for some organic contaminants, skin exposure can play a very important component of overall exposure. Dermal exposure can occur while swimming in contaminated waters, bathing with contaminated surface water/groundwater and digging in contaminated dirt, etc.
	Yes			
Score	3			
ii) inhalation (i.e., inhalation of dust, vapour) Vapour - Are there inhabitable buildings on the site within 30 m of soils or groundwater with volatile contamination as determined in Worksheet II (Migration Potential)? Yes No Do Not Know			If inhabitable buildings are on the site within 30 m of soils or groundwater exceeding their respective guidelines for volatile chemicals, there is a potential of risk to human health (Health Canada, 2004). Review site investigations for location of soil samples (having exceedances of volatile substances) relative to buildings. Refer to (II) Migration Potential worksheet, 4B.a),*Potential for COPCs in Vapour* for a definition of volatility.	Exposure via the lungs (inhalation) can be a very important exposure pathway. Inhalation can be via both particulates (dust) and gas (vapours). Vapours can be a problem where buildings have been built on former industrial sites or where volatile contaminants have migrated below buildings resulting in the potential for vapour intrusion. Assesses the potential for humans to be exposed to vapours originating from site soils. The closer the receptor is to a source of volatile chemicals in soil, the greater the potential of exposure. Also, coarser-grained soil will convey vapour much more efficiently in the soil than finer grained material such as clays and silts. General Notes; Someone experienced must provide a thorough description of the sources researched to determine the presence/absence of a vapour migration and/or dust generation in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resource such as internet links. Selected References; Canadian Council of Ministers of the Environment (CCME). 2006. Protocol for the Derivation of Environmental and Human Health Soil Quality Guidelines. PN 1332. www.ccme.ca Golder, 2004. Soil Vapour Intrusion Guidance for Health Canada Screening Level Risk Assessment (SLRA) Submitted to Health Canada, Burnaby, BC
	No			
Score	0			
Dust - If there is contaminated surface soil (e.g. top 1.5 m) , indicate whether the soil is fine or coarse textured. If it is known that surface soil is not contaminated, enter a score of zero. Fine Coarse Surface soil is not contaminated or absent (bedrock) Do Not Know Texture			Consult grain size data for the site. If soils (containing exceedances of the CCME soil quality guidelines) predominantly consist of fine material (having a median grain size of 75 microns; as defined by CCME (2006)) then these soils are more likely to generate dusts.	
	Fine			
Score	3			
inhalation total	3			

CCME National Classification System (2008)

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for human exposure				
iii) Ingestion (i.e., ingestion of food items, water and soils [for children]), including traditional foods.				
Drinking Water: Choose a score based on the proximity to a drinking water supply, to indicate the potential for contamination (present or future).			Review available site data to determine if drinking water (groundwater, surface water, private, commercial or municipal supply) is known or suspected to be contaminated above Guidelines for Canadian Drinking Water Quality. If drinking water supply is known to be contaminated, some immediate action (e.g., provision of alternate drinking water supply) should be initiated to reduce or eliminate exposure. The evaluation of significant potential for exceedances of the water supply in the future may be based on the capture zones of the drinking water wells; contaminant travel times; computer modelling of flow and contaminant transport.	**Selected References:** Guidelines for Canadian Drinking Water Quality: www.hc-sc.gc.ca/hecs-sesc/water/publications/drinking_water_quality_guidelines/toc.htm Drinking water can be an extremely important exposure pathway to humans. If site groundwater or surface water is not used for drinking, then this pathway is considered to be inoperable. Consider both wild foods such as salmon, venison, caribou, as well as agricultural sources of food items if the contaminated site is on or adjacent to agricultural land uses.
0 to 100 m				
100 to 300 m				
300 m to 1 km				
1 to 5 km				
No drinking water present				
Do Not Know				
	No drinking water presen			
Score	0			
Is an alternative water supply readily available?				
Yes				
No		Water is supplied by truck		
Do Not Know	Yes			
Score	0			
Is human ingestion of contaminated soils possible?			If contaminated soils are located within the top 1.5 m, it is assumed that ingestion of soils is an operable exposure pathway. Exposure to soils deeper than 1.5 m is possible, but less likely, and the duration is shorter. Refer to human health risk assessment reports for the site in question.	
Yes				
No				
Do Not Know	Yes			
Score	3			
Are food items consumed by people, such as plants, domestic animals or wildlife harvested from the contaminated land and its surroundings?			Use human health risk assessment reports (or others) to determine if there is significant reliance on traditional food sources associated with the site. Is the food item in question going to spend a large proportion of its time at the site (e.g., large mammals may spend a very small amount of time at a small contaminated site)? Human health risk assessment reports for the site in question will also provide information on potential bioaccumulation of the COPC in question.	
Yes				
No				
Do Not Know	No			
Score	0			
Ingestion total	3			
Human Health Total "Potential" Score	12	Note if a "Known" Human Health score is provided, the "Potential" score is disallowed.		
Allowed "Potential" Score	12			
2. Human Exposure Modifying Factors				
a) Strong reliance of local people on natural resources for survival (i.e., food, water, shelter, etc.)	Yes			
Yes				
No				
Do Not Know				
Known	6			
Potential	---			
Raw Human "known" total	6			
Raw Human "potential" total	12			
Raw Human Exposure Total Score	18			
Human Health Total (max 22)	**18.0**			
3. Ecological				
A. Known exposure				
Documented adverse impact or high quantified exposure which has or will result in an adverse effect, injury or harm or impairment of the safety to terrestrial or aquatic organisms as a result of the contaminated site.	18		Some low levels of impact to ecological receptors are considered acceptable, particularly on commercial and industrial land uses. However, if ecological effects are deemed to be severe, the site may be categorized as class one (i.e., a priority for remediation or risk management), regardless of the numerical total NCS score. For the purpose of application of the NCS, effects that would be considered severe include observed effects on survival, growth or reproduction which could threaten the viability of a population of ecological receptors at the site. Other evidence that qualifies as severe adverse effects may be determined based on professional judgement and in consultation with the relevant jurisdiction. ecological effects are determined to be severe and an automatic Class 1 is assigned, there is no need to proceed through the NCS. However, a scoring guideline (18) is provided in case a numerical score for the site is still desired (e.g., for comparison with other Class 1 sites).	CCME, 1999: Canadian Water Quality Guidelines for the Protection of Aquatic Life. www.ccme.ca CCME, 1999: Canadian Water Quality Guidelines for the Protection of Agricultural Water Uses. www.ccme.ca Sensitive receptors- review: Canadian Council on Ecological Areaswww.ccea.org. Ecological effects should be evaluated at a population or community level, as opposed to at the level of individuals. For example, population-level effects could include reduced reproduction, growth or survival in a species. Community-level effects could include reduced species diversity or relative abundances. Further discussion of ecological assessment endpoints is provided in *A Framework for Ecological Risk Assessment: General Guidance* (CCME 1996). Notes: Someone experienced must provide a thorough description of the sources researched to classify the environmental receptors in the vicinity of the contaminated site. This information must be documented in the NCS Site Classification Worksheet including contact names, phone numbers, e-mail correspondence and/or reference maps/reports and other resource such as internet links.
Same as above, but "Strongly Suspected" based on observations or indirect evidence.	12		This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients >1. Alternatively, known impacts can also be evaluated based on a weight of evidence assessment involving a combination of site observations, tissue testing, toxicity testing and quantitative community assessments. Scoring of adverse effects on individual rare or endangered species will be completed on a case-by-case basis with full scientific justification.	
No quantified or suspected exposures/impacts in terrestrial or aquatic organisms	0		This category can be based on the outcomes of risk assessments and applies to studies which have reported Hazard Quotients of less than 1 and no other observable or measurable sign of impacts. Alternatively, it can be based on a combination of other lines of evidence showing no adverse effects, such as site observations, tissue testing, toxicity testing and quantitative community assessments.	
	Go to Potential			
Score	---			
NOTE: If a score is assigned here for Known Exposure, then you can skip Part B (Potential for Ecological Exposure) and go to Section 4 (Ecological Exposure Modifying Factors)				

(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
B. Potential for ecological exposure (for the contaminated portion of the site)				
a) Terrestrial i) Land use Agricultural (or Wild lands) Residential/Parkland Commercial Industrial Do Not Know	Commercial	Site is a leased portion of airport lands.	Review zoning and land use maps. If the proposed future land use is more "sensitive" than the current land use, evaluate this factor assuming the proposed future use is in place (indicate in the worksheet that future land use is the consideration). Agricultural land use is defined as uses of land where the activities are related to the productive capability of the land or facility (e.g., greenhouse) and are agricultural in nature, or activities related to the feeding and housing of animals as livestock. Wild lands are grouped with agricultural land due to the similarities in receptors that would be expected to occur there (e.g., herbivorous mammals and birds) and the similar need for a high level of protection to ensure ecological functioning. Residential/Parkland land uses are defined as uses of land on which dwelling on a permanent, temporary, or seasonal basis is the activity (residential), as well as uses on which the activities are recreational in nature and require the natural or human designed capability of the land to sustain that activity (parkland). Commercial/Industrial land uses are defined as land on which the activities are related to the buying, selling, or trading of merchandise or services (commercial), as well as land uses which are related to the production, manufacture, or storage of materials (industrial).	
Score	1			
ii) Uptake potential Direct Contact - Are plants and/or soil invertebrates likely exposed to contaminated soils at the site? Yes No Do Not Know	Yes	Soil invertebrates might be exposed	If contaminated soils are located within the top 1.5 m, it is assumed that direct contact of soils with plants and soil invertebrates is an operable exposure pathway. Exposure to soils deeper than 1.5 m is possible, but less likely.	
Score	1			
iii) Ingestion (i.e., wildlife or domestic animals ingesting contaminated food items, soils or water) Are terrestrial animals likely to be ingesting contaminated water at the site? Yes No Do Not Know	No	Airport - restricted access	Refer to an Ecological Risk Assessment for the site. If there is contaminated surface water at the site, assume that terrestrial organisms will ingest it.	
Score	0			
Are terrestrial animals likely to be ingesting contaminated soils at the site? Yes No Do Not Know	No	Airport - restricted access	Refer to an Ecological Risk Assessment report. Most animals will co-ingest some soil while eating plant matter or soil invertebrates.	
Score	0			
Can the contamination identified bioaccumulate? Yes No Do Not Know	Yes		Bioaccumulation of contaminants within food items is considered possible if: 1) The Log(Kow) of the contaminant is greater than 4 (as per the chemical characteristics work sheet) and concentrations in soils exceed the most conservative CCME soil quality guideline for the intended land use, or 2) The contaminant in collected tissue samples exceeds the Canadian Tissue Residue Guidelines.	
Score	1			
Distance to sensitive terrestrial ecological area 0 to 300 m 300 m to 1 km 1 to 5 km > 5 km Do Not Know	Do Not Know		It is considered that within 300 m of a site, there is a concern for contamination. Therefore an environmental receptor located within this area of the site will be subject to further evaluations. It is also considered that any environmental receptor located greater than 5 km will not be a concern for evaluation. Review Conservation Authority mapping and literature including Canadian Council on Ecological Areas link: www.ccea.org.	Environmental receptors include: local, regional or provincial species of interest or significance; arctic environments (on a site specific basis); nature preserves, habitats for species at risk, sensitive forests, natural parks or forests.
Score	1.5			
Raw Terrestrial Total Potential	4.5	Note if a "Known" Ecological Effects score is provided, the "Potential" score is disallowed.		
Allowed Terrestrial Total Potential	4.5			
B. Potential for ecological exposure (for the contaminated portion of the site)				
b) Aquatic i) Classification of aquatic environment Sensitive Typical Not Applicable (no aquatic environment present) Do Not Know	Sensitive		"Sensitive aquatic environments" include those in or adjacent to shellfish or fish harvesting areas, marine parks, ecological reserves and fish migration paths. Also includes those areas deemed to have ecological significance such as for fish food resources, spawning areas or having rare or endangered species. "Typical aquatic environments" include those in areas other than those listed above.	
Score	3			
ii) Uptake potential Does groundwater daylighting to an aquatic environment exceed the CCME water quality guidelines for the protection of aquatic life at the point of contact? Yes No (or Not Applicable) Do Not Know	No		Groundwater concentrations of contaminants at the point of contact with an aquatic receiving environment can be estimated in three ways: 1) by comparing collected nearshore groundwater concentrations to the CCME water quality guidelines (this will be a conservative comparison, as contaminant concentrations in groundwater often decrease between nearshore wells and the point of discharge). 2) by conducting groundwater modeling to estimate the concentration of groundwater immediately before discharge. 3) by installing water samplers, "peepers", in the sediments in the area of daylighting groundwater.	
Score	0			
Distance from the contaminated site to an important surface water resource 0 to 300 m 300 m to 1 km 1 to 5 km > 5 km Do Not Know	300 m to 1 km	Cambridge Bay 600m south of the site	It is considered that within 300 m of a site, there is a concern for contamination. Therefore an environmental receptor or important water resource located within this area of the site will be subject to further evaluation. It is also considered that any environmental receptor located greater than 5 km away will not be a concern for evaluation. Review Conservation Authority mapping and literature including Canadian Council on Ecological Areas link:www.ccea.org.	Environmental receptors include: local, regional or provincial species of interest or significance, sensitive wetlands and fens and other aquatic environments.
Score	2			
Are aquatic species (i.e., forage fish, invertebrates or plants) that are consumed by predatory fish or wildlife consumers, such as mammals and birds, likely to accumulate contaminants in their tissues? Yes No Do Not Know	No	No aquatic species onsite	Bioaccumulation of food items is possible if: 1) The Log(Kow) of the contaminant is greater than 4 (as per the chemical characteristics work sheet) and concentrations in sediments exceed the CCME ISQGs. 2) The contaminant in collected tissue samples exceeds the CCME tissue quality guidelines.	
Score	0			
Raw Aquatic Total Potential	5	Note if a "Known" Ecological Effects score is provided, the "Potential" score is disallowed.		
Allowed Aquatic Total Potential	5			

CCME National Classification System (2008)

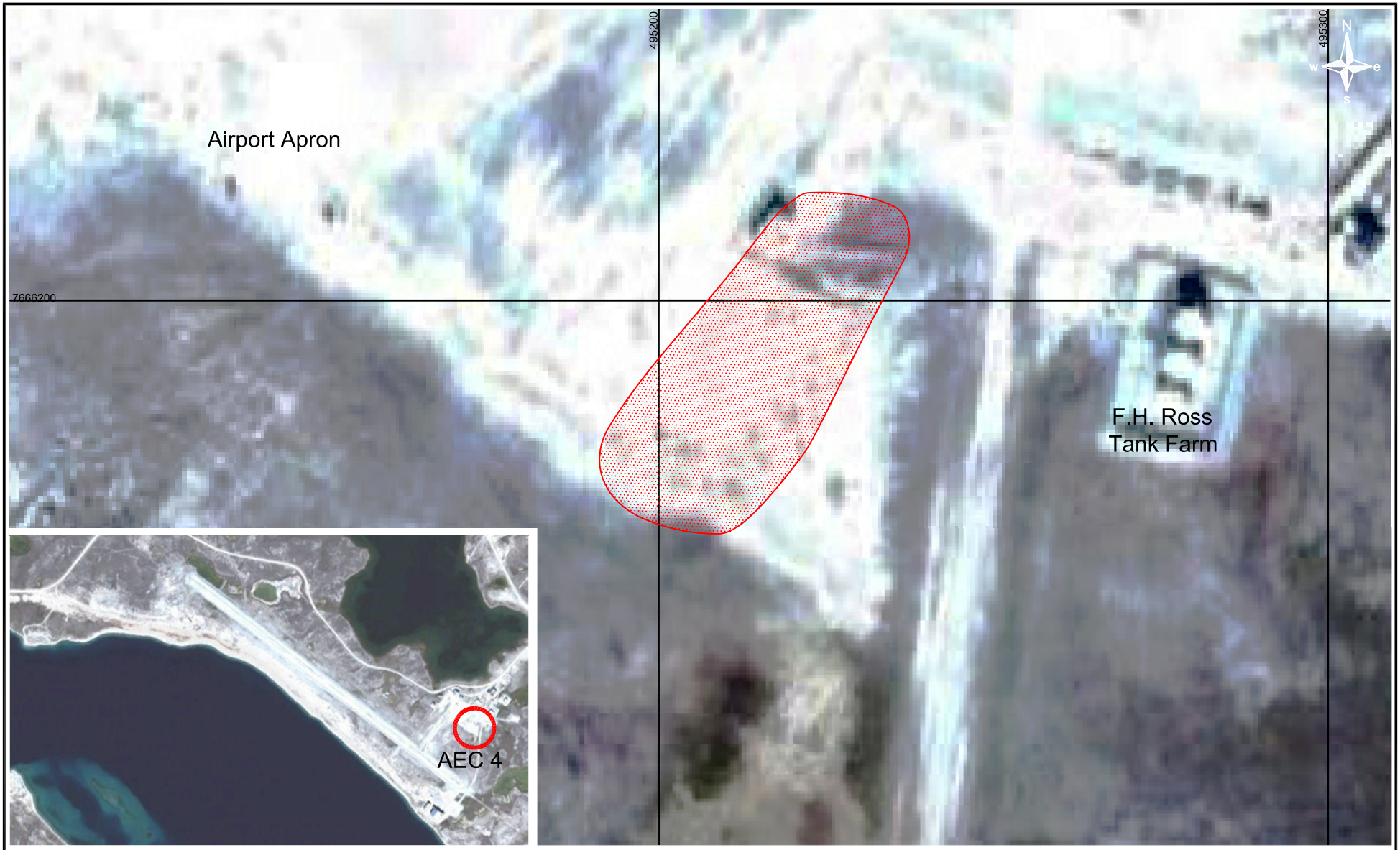
(III) Exposure (Demonstrates the presence of an exposure pathway and receptors)

Former F.H. Ross Tank Site

Definition	Score	Rationale for Score (document any assumptions, reports, or site-specific information; provide references)	Method Of Evaluation	Notes
4. Ecological Exposure Modifying Factors				
a) Known occurrence of a species at risk. Is there a potential for a species at risk to be present at the site? Yes No Do Not Know	 No	http://www.sis.ec.gc.ca/ec_species/ec_species_e.phtml	Consult any ecological risk assessment reports. If information is not present, utilize on-line databases such as Eco Explorer. Regional, Provincial (Environment Ministries), or Federal staff (Fisheries and Oceans or Environment Canada) should be able to provide some guidance.	Species at risk include those that are extirpated, endangered, threatened, or of special concern. For a list of species at risk, consult Schedule 1 of the federal Species at Risk Act (http://www.sararegistry.gc.ca/species/schedules_e.cfm?id=1). Many provincial governments may also provide regionally applicable lists of species at risk. For example, in British Columbia, consult: BCMWLAP. 2005. Endangered Species and Ecosystems in British Columbia. Provincial red and blue lists. Ministry of Sustainable Resource Management and Water, Land and Air Protection.http://srmwww.gov.bc.ca/atrisk/red-blue.htm
Score	0 ---			
b) Potential impact of aesthetics (e.g., enrichment of a lake or tainting of food flavor).				
Is there evidence of aesthetic impact to receiving water bodies?	No		Documentation may consist of environmental investigation reports, press articles, petitions or other records.	This Item will require some level of documentation by user, including contact names, addresses, phone numbers, e-mail addresses. Evidence of changes must be documented, please attach copy of report containing relevant information.
Yes No Do Not Know	 0 ---			
Is there evidence of olfactory impact (i.e., unpleasant smell)?	No		Examples of olfactory change can include the smell of a COPC or an increase in the rate of decay in an aquatic habitat.	
Yes No Do Not Know	 0 ---			
Is there evidence of increase in plant growth in the lake or water body?	No		A distinct increase of plant growth in an aquatic environment may suggest enrichment. Nutrients e.g., nitrogen or phosphorous releases to an aquatic body can act as a fertilizer.	
Yes No Do Not Know	 0 ---			
Is there evidence that fish or meat taken from or adjacent to the site smells or tastes different?	No		Some contaminants can result in a distinctive change in the way food gathered from the site tastes or smells.	
Yes No Do Not Know	0 ---			
Ecological Modifying Factors Total - Known	**0**			
Ecological Modifying Factors Total - Potential	**---**			
Raw Ecological Total - Known	0			
Raw Ecological Total - Potential	9.5			
Raw Ecological Total	9.5			
Ecological Total (Max 18)	**9.5**			
5. Other Potential Contaminant Receptors				
a) Exposure of permafrost (leading to erosion and structural concerns)				Plants and lichens provide a natural insulating layer which will help prevent thawing of the permafrost during the summer. Plants and lichens may also absorb less solar radiation. Solar radiation is turned into heat which can also cause underlying permafrost to melt.
Are there improvements (roads, buildings) at the site dependant upon the permafrost for structural integrity?	No	Site vacant	Consult engineering reports, site plans or air photos of the site. When permafrost melts, the stability of the soil decreases, leading to erosion. Human structures, such as roads and/or buildings are often dependent on the stability that the permafrost provides.	
Yes No Do Not Know	 0 ---			
Is there a physical pathway which can transport soils released by damaged permafrost to a nearby aquatic environment?	No		Melting permafrost leads to a decreased stability of underlying soils. Wind or surface run-off erosion can carry soils into nearby aquatic habitats. The increased soil loadings into a river can cause an increase in total dissolved solids and a resulting decrease in aquatic habitat quality. In addition, the erosion can bring contaminants from soils to aquatic environments.	
Yes No Do Not Know	 0 ---			
Other Potential Receptors Total - Known	**0**			
Other Potential Receptors Total - Potential	**0**			

Exposure Total	
Raw Human Health + Ecological Total - Known	6
Raw Human Health + Ecological Total - Potential	21.5
Raw Total	27.5
Exposure Total (max 34)	**20.3**

Only includes "Allowed potential" - if a "Known" score was supplied under a given category then the "Potential" score was not included.



LEGEND

Approximate extent of contamination

SCALE 1:800

30 20 10 0 30

metres

References:
Google Earth satellite image, 2009
Site locations based on dGPS coordinates (UTM - NAD 83)

Title:

AEC 4 Extent of Contamination

FRANZ ENVIRONMENTAL INC.
CONSULTING ENGINEERING TECHNOLOGIES

Project:
CAMBRIDGE BAY AIRPORT PHASE II/III
ENVIRONMENTAL SITE ASSESSMENT
DRAFT FIELD REPORT

Date:
JANUARY 2010

Client:
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
TRANSPORT CANADA

Scale:
1 : 800

FIGURE 14

1748-0901/CAD/Cambridge Bay.dwg DRAFT Jan 29/10

CCME National Classification System for Contaminated Sites (2008)
Pre-Screening Checklist

Question	Response (yes / no)	Comment
1. Are **Radioactive material**, **Bacterial contamination** or **Biological hazards** likely to be present at the site?	No	If yes, do not proceed through the NCSCS. Contact applicable regulatory agency immediately.
2. Are there **no contamination exceedances** (known or suspected)? Determination of exceedances may be based on: 1) CCME environmental quality guidelines; 2) equivalent provincial guidelines/standards if no CCME guideline exists for a specific chemical in a relevant medium; or 3) toxicity benchmarks derived from the literature for chemicals not covered by CCME or provincial guidelines/standards.	No	If yes (i.e., there are no exceedances), do not proceed through the NCSCS.
3. Have **partial/incompleted or no environmental site investigations** been conducted for the Site?	No	If yes, do not proceed through the NCSCS.
4. Is there direct and signficant evidence of **impacts to humans** at the site, or off-site due to migration of contaminants from the site?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
5. Is there direct and significant evidence of **impacts to ecological receptors** at the site, or off-site due to migration of contaminants from the site?	No	Some low levels of impact to ecological receptors are considered acceptable, particularly on commercial and industrial land uses. However, if ecological effects are considered to be severe, the site may be categorized as Class 1, regardless of the numerical total NCSCS score. For the purpose of application of the NCSCS, effects that would be considered severe include observed effects on survival, growth or reproduction which could threaten the viability of a population of ecological receptors at the site. Other evidence that qualifies as severe adverse effects may be determined based on professional judgement and in consultation with the relevant jurisdiction.
6. Are there indicators of significant **adverse effects in the exposure zone** (i.e., the zone in which receptors may come into contact with contaminants)? Some examples are as follows: -Hydrocarbon sheen or NAPL in the exposure zone -Severely stressed biota or devoid of biota; -Presence of material at ground surface or sediment with suspected high concentration of contaminants such as ore tailings, sandblasting grit, slag, and coal tar.	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
7. Do measured concentrations of volatiles or unexploded ordnances represent an **explosion hazard**?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, and do not continue until the safety risks have been addressed. Consult your jurisdiction's occupational health and safety guidance or legislation on exposive hazards and measurement of lower explosive limits.

If none of the above applies, proceed with the NCSCS scoring.

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

Subject Site:	**Former AST Location North of Building T-5 (APEC 5)**	
Civic Address: *(or other description of location)*	Cambridge Bay Airport, Cambridge Bay, NT	
Site Common Name : *(if applicable)*	Former AST Location North of Building T-5	
Site Owner or Custodian: *(Organization and Contact Person)*	Governement of Nunavut Shawn Maley (Director, Nunavut Airports) 867-645-8203	
Legal description *or* metes and bounds:	Lot 1004, QUAD77/D2, 79787 CLSR, 2958LTO	
Approximate Site area:	1,200 m2	
PID(s) : *(or Parcel Identification Numbers [PIN] if untitled Crown land)*	N/A	
Centre of site: *(provide latitude/longitude or UTM coordinates)*	Latitude: Longitude:	__69__ degrees __06_ min __28.29__ secs __105_ degrees __07__ min __00.79__ secs
	UTM Coordinate:	
Site Land Use:	Current:	Commercial
	Proposed:	Commercial
Site Plan	**To delineate the bounds of the Site a site plan MUST be attached. The plan must be drawn to scale indicating the boundaries in relation to well-defined reference points and/or legal descriptions. Delineation of the contamination should also be indicated on the site plan.**	
Provide a brief description of the Site:	A former diesel AST (2,200L) associated with the a fuel dispensing facility was present north of building T-5 (Powerhouse / Field Electrical Centre). The fuel dispensing facility was utilized by airport maintenance personnel for vehicle fuelling of vehicles. Agra (1999) indicated in their report that a 2,200 L diesethel AST was installed present supported on a concrete padbase. At the time of the investigation conducted by Franz in 2009, empty drums were observed to be stored in the area. No surficial staining was observed.. The 2,200 L diesel AST was not observed during the field work in 2009.	

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

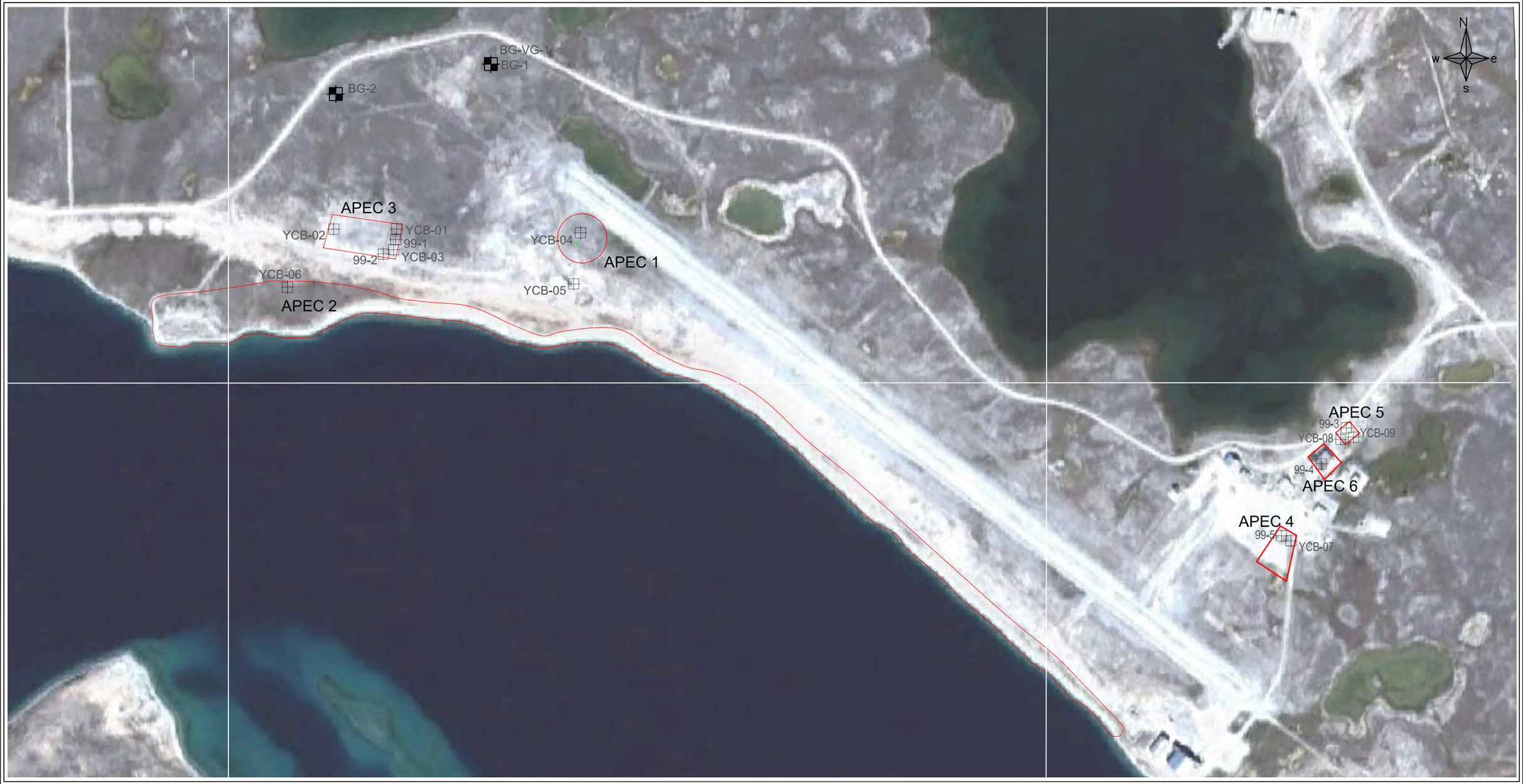
Affected media and Contaminants of Potential Concern (COPC):	Affected Media: Soil and groundwater COPC: BTEX, F1-F4, PAH, VOC and Metals.

Please fill in the "letter" that best describes the level of information available for the site being assessed

Site Letter Grade **C**

If letter grade is F, do not continue, you must have a minimum of a Phase I Environmental Site Assessment or equivalent.

Scoring Completed By:	**Viviane Dubois-Cote**
Date Scoring Completed:	**19-Jan-10**



LEGEND

- Area of Potential Environmental Concern (APEC)
- Background Sampling Location (Franz 2009)
- YCB-01 Soil/Groundwater Sample Location - Dillon 1995
- 99-1 Soil/Groundwater Sample Location - AGRA 1999

[redacted]

SCALE 1:6,600

200 150 100 50 0 200
metres

References:
Google Earth satellite image, 2009
APEC locations based on dGPS coordinates (UTM - NAD 83)
Sampling locations derived from historical reports

Title:
APEC LOCATIONS

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project:
CAMBRIDGE BAY AIRPORT PHASE II/III
ENVIRONMENTAL SITE ASSESSMENT
DRAFT FIELD REPORT

Date:
JANUARY 2010

Client:
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
TRANSPORT CANADA

Scale:
1 : 6,600

FIGURE 2

1748-0901/CAD/Cambridge Bay.dwg DRAFT Jan 29/10

CCME National Classification System for Contaminated Sites (2008)
Pre-Screening Checklist

Question	Response (yes / no)	Comment
1. Are **Radioactive material**, **Bacterial contamination** or **Biological hazards** likely to be present at the site?	No	If yes, do not proceed through the NCSCS. Contact applicable regulatory agency immediately.
2. Are there **no contamination exceedances** (known or suspected)? Determination of exceedances may be based on: 1) CCME environmental quality guidelines; 2) equivalent provincial guidelines/standards if no CCME guideline exists for a specific chemical in a relevant medium; or 3) toxicity benchmarks derived from the literature for chemicals not covered by CCME or provincial guidelines/standards.	No	If yes (i.e., there are no exceedances), do not proceed through the NCSCS.
3. Have **partial/incompleted or no environmental site investigations** been conducted for the Site?	No	If yes, do not proceed through the NCSCS.
4. Is there direct and signficant evidence of **impacts to humans** at the site, or off-site due to migration of contaminants from the site?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
5. Is there direct and significant evidence of **impacts to ecological receptors** at the site, or off-site due to migration of contaminants from the site?	No	Some low levels of impact to ecological receptors are considered acceptable, particularly on commercial and industrial land uses. However, if ecological effects are considered to be severe, the site may be categorized as Class 1, regardless of the numerical total NCSCS score. For the purpose of application of the NCSCS, effects that would be considered severe include observed effects on survival, growth or reproduction which could threaten the viability of a population of ecological receptors at the site. Other evidence that qualifies as severe adverse effects may be determined based on professional judgement and in consultation with the relevant jurisdiction.
6. Are there indicators of significant **adverse effects in the exposure zone** (i.e., the zone in which receptors may come into contact with contaminants)? Some examples are as follows: -Hydrocarbon sheen or NAPL in the exposure zone -Severely stressed biota or devoid of biota; -Presence of material at ground surface or sediment with suspected high concentration of contaminants such as ore tailings, sandblasting grit, slag, and coal tar.	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, regardless of the total score obtained should one be calculated (e.g., for comparison with other Class 1 sites).
7. Do measured concentrations of volatiles or unexploded ordnances represent an **explosion hazard**?	No	If yes, automatically rate the site as Class 1, a priority for remediation or risk management, and do not continue until the safety risks have been addressed. Consult your jurisdiction's occupational health and safety guidance or legislation on exposive hazards and measurement of lower explosive limits.

If none of the above applies, proceed with the NCSCS scoring.

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

Subject Site:	**Former AST Location West of Building T-4 (APEC 6)**	
Civic Address: *(or other description of location)*	Cambridge Bay Airport, Cambridge Bay, NT	
Site Common Name : *(if applicable)*	Former AST Location West of Building T-4	
Site Owner or Custodian: *(Organization and Contact Person)*	Governement of Nunavut Shawn Maley (Director, Nunavut Airports) 867-645-8203	
Legal description *or* metes and bounds:	Lot 1004, QUAD77/D2, 79787 CLSR, 2958LTO	
Approximate Site area:	900 m2	
PID(s) : *(or Parcel Identification Numbers [PIN] if untitled Crown land)*	N/A	
Centre of site: *(provide latitude/longitude or UTM coordinates)*	Latitude: Longitude:	__69__ degrees __06_ min __27.07__ secs __105_ degrees __07__ min __05.30__ secs
	UTM Coordinate:	
Site Land Use:	Current:	Commercial
	Proposed:	Commercial
Site Plan	**To delineate the bounds of the Site a site plan MUST be attached. The plan must be drawn to scale indicating the boundaries in relation to well-defined reference points and/or legal descriptions. Delineation of the contamination should also be indicated on the site plan.**	
Provide a brief description of the Site:	APEC 6 is consists of a former AST installed west of the existing maintenance garage and fire-hall compound (Building T-4). Both Dillon (1995) and Agra (1999) noted that floor drains in Building T-4 drain onto the ground surface below the building. No indicators of contamination were noted.	

CCME National Classification System for Contaminated Sites (2008)
Summary of Site Conditions

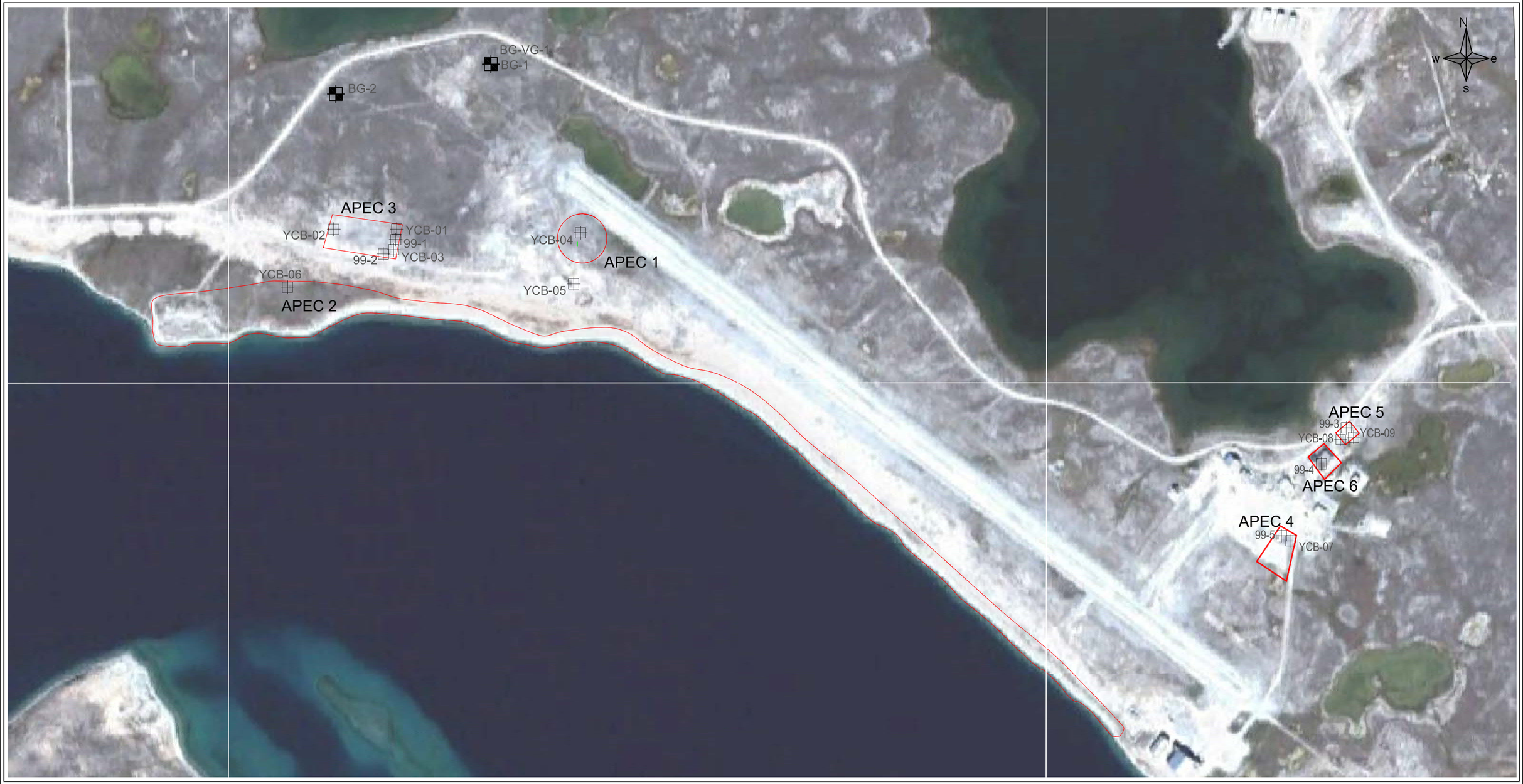
Affected media and Contaminants of Potential Concern (COPC):	Affected Media: Soil and groundwater COPC: BTEX, F1-F4, PAH, VOC and Metals.

Please fill in the "letter" that best describes the level of information available for the site being assessed

Site Letter Grade **C**

If letter grade is F, do not continue, you must have a minimum of a Phase I Environmental Site Assessment or equivalent.

Scoring Completed By:	**Viviane Dubois-Cote**
Date Scoring Completed:	**19-Jan-10**



LEGEND

- Area of Potential Environmental Concern (APEC)
- Background Sampling Location (Franz 2009)
- YCB-01 Soil/Groundwater Sample Location - Dillon 1995
- 99-1 Soil/Groundwater Sample Location - AGRA 1999

[redacted]

SCALE 1:6,600

200 150 100 50 0 200
metres

References:
Google Earth satellite image, 2009
APEC locations based on dGPS coordinates (UTM - NAD 83)
Sampling locations derived from historical reports

Title:
APEC LOCATIONS

FRANZ ENVIRONMENTAL INC.
♦ CONSULTING ♦ ENGINEERING ♦ TECHNOLOGIES ♦

Project:
CAMBRIDGE BAY AIRPORT PHASE II/III
ENVIRONMENTAL SITE ASSESSMENT
DRAFT FIELD REPORT

Date:
JANUARY 2010

Client:
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
TRANSPORT CANADA

Scale:
1 : 6,600

FIGURE 2

1748-0901/CAD/Cambridge Bay.dwg DRAFT Jan 29/10

APPENDIX J

Remedial Options Analysis

Evaluation of Potential Remedial Options for Contamination at Cambridge Bay Airport
Job #: 1748-0901

APEC	Issue	Detail	Location	Estimated Extent (area or volume)	Potential Remedial Options
APEC 1 Screening Plant / Boneyard	**No issues**	**-**	-	-	-
APEC 2 TC Shoreline Disposal Area	**Metal in soil**	**CL+ soil for Copper and Arsenic**	Southeast portion of the TC Shoreline Disposal Area (2-TP-5 and 2-TP-6) between 0-0.6m	**≈ 20 m^3**	A, B
APEC 3 Firefighter Training Area	**PHCs in soil**	**CL+ soil for Benzene, Ethylbenzene and F2 fraction**	Eastern portion of the firefighter training area (3-09-4M, 3-09-5M and 3-09-6M) between 0-2m	**≈ 15,000 m^3**	A, C, D
	PHCs in groundwater	**AW+ groundwater for Benzene and Naphthalene**	Eastern portion of the firefighter training area (3-09-4M, 3-09-5M)	**≈ 2,500 m^2**	C, D, E
	Pb in groundwater	**AW+ groundwater for Pb**	Within firefighter training area (3-09-4M)	**≈ 1,600 m^2**	A, B, C, E
APEC 4 Former F.H. Ross Tank Site	**PHCs in soil**	**CL+ soil for Benzene, Toluene, Ethylbenzene, Xylenes, and F1-F4 fraction**	Western portion of site (4A-09-3M, 4A-09-4, 4A-09-5 and 4A-09-8) Between 0-2m	**≈ 3,500 m^3**	A, C, D
	Metal in soil	**CL+ soil for Pb**	Southwest portion of the site (4A-09-5) Between 0.5 -1.5 m	**≈ 10 m^3**	A, B
	PHCs in groundwater	**AW+ groundwater for Naphthalene, and Toluene**	Northern portion of site (4A-09-3M)	**≈ 300 m^2**	C, D, E
	Metal in groundwater	**AW+ for Zn**	Eastern portion of site (4A-09-2M)	**≈ 300 m^2**	A, B, C, E
APEC 5 Former AST Location North of Building T-5	**No issues**	**-**	-	**-**	-
APEC 6 Former AST Location West of Building T-4	**No issues**	**-**	-	**-**	-

A - Excavation and off-site disposal
B - Risk Assessment
C - Excavation and on-site ex-situ bioremediation (landfarming)
D - In-situ treatment (chemical oxidation)
E - Long-term monitoring (monitored natural attenuation)

Remedial Option Comparison Table

Potential Remedial Option	Effeciveness meeting remediation and/or risk management standards	Applicability	Limitations	Protection of human health and the environment	Reglatory Acceptance	Timeframe	Cost	Ranking Totals
Excavation and Onsite Biological Ex-situ Remediation: Remediation involves excavation of contaminated soil followed by transportation of the soil to the onsite treatment facility. Treatment of the soil typically involves addition of moisture, nutrients and if required a source of carbon to stimulate biological degradation of the organic contaminants. Aeration of the soil can be accomplished using passive aeration, mechanical turning or continuous aeration uses a blower system.	The PHC impacted soil is removed from property and no further action or site restrictions are required.	Soil excavation can be conducted in areas where the excavation will not impact structures during the excavation and backfilling phase. Onsite treatment biological treatment has been successfully employed for hydrocarbons, solvents, and various other organic compounds.	Soil treatment times can often require months to treat the soil to the target levels. Treatment time increases as the temperature decreases. Excavation may be limited by the presence of structures and shoring and replacement of the structures to allow excavation may be prohibitively expensive. Practical maximum excavation depths vary from 6m to 10m depending on site conditions; however, not considered an issue at the Site.	Expected removal of main risks to human health and the environment at the site following site work. Care required during excavation to limit site worker exposure to PHCs in soil.	Regulatory response would probably be largely positive since contaminated soil will be removed from the site.	Years	Typical costs are expected to range from $100 to $300 /cu.m; however, costs could be higher due to the cold climate	**28**
Score (1-5)	**5**	**4**	**3**	**5**	**5**	**3**	**3**	
Risk Assessment	A complete risk assessment might still leave soil to be treated. Elevated F1 and F2 fractions in soil may still require treatment or reduction in concentrations or pathway barriers.	A risk assessment would be specifically tailored to the site.	Additional investigation required to address data-gaps (i.e., requires full delineation). Some contaminant migration models have limited application and permafrost environments.	A risk assessment is tailored specifically to site characteristics and takes into account human health and the environment in the area.	Risk Assessment is likely to be less acceptable to the public and employees than remediation. Risk Management and communication strategy may be required.	Years	Costs are on the order of $60,000. This does not include any additional investigation for data gaps, or soil removal indicated by the Risk Assessment.	**27**
Score (1-5)	**3**	**4**	**3**	**5**	**3**	**4**	**5**	
Excavation and Offsite Disposal: Remediation involves excavation of contaminated soil followed by transportation of the soil to a permitted offsite treatment facility.	The PHC impacted soil is removed from property and no further action or site restrictions are required.	Soil excavation can be conducted in areas where the excavation will not impact structures during the excavation and backfilling phase. Offsite disposal can be conducted for a wide range of organic and inorganic contaminants. Permits may be required to allow offsite transportation.	May require special permitting to transport the soil. Transportation costs can significantly increase the cost of the treatment program if the site is located in a remote area. May require purchasing soil to backfill the excavation as the treated soil is not available to backfill the excavation or borrow pit area. Excavation may be limited by the presence of structures and shoring and replacement of the structures to allow excavation may be prohibitively expensive. Practical maximum excavation depths vary from 6m to 10m depending on site conditions.	Expected removal of main risks to human health and the environment at the site following site work. Care would have to be taken during excavation to limit exposure of site workers to PHCs in soil.	Regulatory response would probably be largely positive since contaminated soil will be removed from the site.	Years	Typical costs range from $200 to $500 /cu.m depending of contamiant type and transporation distance	**22**
Score (1-5)	**5**	**3**	**1**	**5**	**5**	**2**	**1**	
In Situ Treatment: Multi-Phase Extraction: This involves the installation of a vacuum blower to remove both water and air. The water is removed and treated onsite. The water can be re-injected or removed for appropriate disposal. The removal of air enhances airflow into the ground and can be controlled to provide oxygen for biological remediation of organic contaminants found above the water table.	Bioventing and vapour extraction have proven successful in arctic climates in the past but at slower remedial time frames.	Can be conducted in a wide range of locations even within and around various structures. The process can be designed to treat petroleum hydrocarbons, solvents, dissolved metals, pesticides, and wood preservatives.	Construction would be complicated due to the size of the site and installation of piping and wells in the active layer.	Monitoring would be necessary to ensure that the treatment system is protecting human health; especially vapour phase migration or off-gas treatment.	Regulatory and public acceptance may be an issue considering the Site is surrounded by commercial facilities.	Years	Typical costs range from $30 to $300 /cu.m	**17**
Score (1-5)	**2**	**4**	**3**	**2**	**2**	**2**	**2**	
In-situ Chemical Oxidation: A combination of oxidizer and activator is pumped into the ground to react with and convert the organic contaminants to harmless compounds such as carbon dioxide and water.	Many chemicals are highly subject to oxidation, including aromatic compounds like benzene. However, other fractions (like the F2 found on the site) may be more resistant to chemical oxidation. Oxidation is non-chemical selective; and will oxidize other organic materials.	Can be conducted in a wide range of locations even within and around various structures. The process can be designed to treat petroleum hydrocarbons, solvents, pesticides, and wood preservatives.	Additional data gathering and modelling must be conducted to design an injection system appropriate to the site conditions. The oxidizer and activator must be carefully chosen to match the contaminant and the application rate must also be controlled to ensure treatment occurs at the required rate and reaches the appropriate radius of treatment. Chemical oxidation often can not be used when significant free phase hydrocarbon is present. The oxidizer may require specially trained personnel to transport and handle the oxidizer to allow for safe tansportaion, handling and use.	Transport of the chemicals of the type used in *in-situ* oxidation would pose a risk to human health. The reactions are exothermic which have been known to be explosive in some circumstances.	Regulatory and public acceptance may be an issue considering the site is surrounded by residential and commercial facilities.	Years	Typical costs range from $80 to $300 /cu.m	**12**
Score (1-5)	**2**	**2**	**1**	**1**	**2**	**2**	**2**	
Monitored Natural Attenuation: This process relies on naturally occurring biotic and abiotic processes to remove contaminants from the affected media. Application of the process may require determining the dominant degradation process and assessing if this process is active. Usually requires modelling to predict the long term behaviour of the soil impacted area and groundwater plume followed by periodic monitoring to confirm the degradation and migration processes are conforming to the predicted behaviour.	Many chemicals are subject to natural degradation; However, some PHC fractions more resistant to chemical oxidation. Treatment is non-chemical selective; and does not address metals contamination.	Can be conducted in a wide range of locations even within and around various structures. The process is typically used to treat petroleum hydrocarbons, and solvents.	Natural attentuation can not be employed if impacts to receptors are occurring or will occur before natural attenuation degrades the contamination. Long term monitoring is required and degradation process may halt before the remedial target criteria is met. Longer treatment time can increase client liability by managing a contaminated Site for an extended period of time.	Plume migration may be ongoing.	Regulatory and public acceptance may be an issue considering the extended timeframe required and presence of commercial facilities, and nearby ecological receptors.	Years to tens of years	The costs arise from increased assessment and modelling coupled with the cost to conduct periodic monitoring. There is no easy way to predict the remedial cost per unit volume.	**16**
Score (1-5)	**3**	**1**	**2**	**3**	**2**	**1**	**4**	

Scoring Guide	1: Ineffective - 5: Completely Effective	1: Not Applicable - 5: Totally Applicable	1: Very complex - 5: Few limiting factors	1: High Risk - 5: Low Risk	1: Low Regulatory/Public Acceptance - 5: High Regulatory/Public Acceptance	1: Very Slow - 5: Very Fast	1: Very Expensive - 5: Inexpensive	**Total Possible: 35**

Appendix K

Remediation Cost Estimate

(5 year plan)

All estimates in this cost sheet are based on 2009 standing offer rates or and estimates of contractor production from 2009 and previous years. Also, estimated contractor (e.g., drillers, remediation contractor, laboratory) costs are based on prices paid during the 2009 field season. Projected future costs do not factor in inflation and other potential cost increases e.g wages, equipment, regulatory changes or economic factors not in our control. All costs assume economies of scale which require that sites must be remediated on a large scale as previous years.

ASSESSMENT ASSUMPTIONS: time calculations factor into consultant field time and contractor time, mobe and utility locates

2 hours of work are required for each test pit	**2**	hrs.
3 hours of work are required for each monitoring well installed (including drilling time)	**3**	hrs.
3 hours of work are required for each monitoring well to be sampled and developed	**3**	hrs.

REMEDIATION ASSUMPTIONS:

One workday is 12 hours duration

Three people will be on site at all times: one project supervisor, one field supervisors and one junior environmental professional

NB: Remediation volumes are estimated assuming all delineation samples are compliant

The contractor can do the following daily:

Excavation of soil	**500**	m3/day
Transport/compact/backfill	**500**	m3/day

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
ENVIRONMENTAL SERVICES

PROJECT: Cambridge Bay Airport Remediation

SCOPE OF WORK

1.) Cost estimate to conduct remediation 2010/2015 is about $5.1 million. Total estimated costs over 9 years are approximately $8.2 million; about $150,000 (2%) for AEC 2; about $6.5 million (80%) for AEC 3; and, 1.5 million(18%) for AEC 4.

2.) Estimated volume Impacted Soil is 20m^3 (metals) and 18,500 m^3 (hydrocarbons) based on preliminary findings. Contamination not fully delineated in all AECs.

3.) Key tasks/components to Project:
- a.) Remediation Feasability Assessment and Permit Application
- b.) Construction of biopile
- c.) Risk Assessment of areas impacted by metals
- d.) Excavation of PHC-impacted soil and treatment on biopile
- e.) Groundwater monitoring and sampling - during project and post remedial monitoring

4) Reporting

FY Goals

FY 2010/2011	Complete all relevant assessments in order to expedite the remedial program
	Conduct site specific risk assessment at sites impacted by metals
FY 2011/2012	Construction of biopile, excavation of 3,500m3 of contaminated soil and backfill 3,500m3
FY 2012/2013	Excavation of 3,500m3 of contaminated soil and backfill with 3,500m3
FY 2013/2014	Treatment of 3,5000m3 of contaminated soil, excavation of 3,500m3 of contaminated soil and backfill 3,500m3
FY 2014/2015	Treatment of 3,5000m3 of contaminated soil, excavation of 3,500m3 of contaminated soil and backfill 3,500m3

Projected Costs for Fiscal Year 2010/2011

Task #	Description	Probable Cost
1.0	Project Management	$ 45,000.00
2.0	Remediation feasibility assessments	$ 194,310.00
3.0	Laboratory Analytical	$ 50,000.00
4.0	Site Specific Risk Assessments	$ 150,000.00
5.0	Reporting	$ 70,000.00
6.0	Permit application for construction of biopile	$ 50,000.00
7.0	Develop Remedial Action Plan	$ 50,000.00
8.0	Planning for 2011-2012 season	$ 50,000.00
	Contigency	25.00%
	TOTAL COSTS:	**$ 824,137.50**

Projected Costs for Fiscal Year 2011/2012

Task #	Description	Probable Cost
1.0	Project Management	$ 45,000.00
2.0	Construction of biopile, excavation of contaminated soil and backfill	$ 865,450.00
3.0	Groundwater Monitoring and Sampling	$ 20,000.00
4.0	Laboratory Analytical	$ 50,000.00
5.0	Remediation Report	$ 70,000.00
6.0	Planning for 2012-2013	$ 50,000.00
	Contigency	25.00%
	TOTAL COSTS:	**$ 1,375,562.50**

Projected Costs for Fiscal Year 2012/2013

Task #	Description	Probable Cost
1.0	Project Management	$ 45,000.00
2.0	Excavation / Backfill	$ 617,000.00
3.0	Groundwater Monitoring and Sampling	$ 20,000.00
4.0	Laboratory Analytical	$ 50,000.00
5.0	Reporting	$ 70,000.00
6.0	Planning for 2013-2014	$ 50,000.00
	Contigency	25.00%
	TOTAL COSTS:	**$ 1,065,000.00**

Projected Costs for Fiscal Year 2013/2014

Task #	Description	Probable Cost
1.0	Project Management	$ 45,000.00
2.0	Treatment / Excavation / Backfill	$ 518,000.00
3.0	Groundwater Monitoring and Sampling	$ 20,000.00
4.0	Laboratory Analytical	$ 50,000.00
5.0	Remediation Report	$ 70,000.00
6.0	Planning for 2014-2015	$ 50,000.00
	Contigency	25.00%
	TOTAL COSTS:	**$ 941,250.00**

Projected Costs for Fiscal Year 2014/2015

Task #	Description	Probable Cost
1.0	Project Management	$ 45,000.00
2.0	Treatment / Excavation / Backfill	$ 518,000.00
3.0	Groundwater Monitoring and Sampling	$ 20,000.00
4.0	Laboratory Analytical	$ 50,000.00
5.0	Remediation Report	$ 70,000.00
6.0	Planning for 2015-2016	$ 50,000.00
	Contigency	25.00%
	TOTAL COSTS:	**$ 941,250.00**

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
ENVIRONMENTAL SERVICES

PROJECT: **Cambridge Bay Airport Remediation**

Year: **Fiscal Year 2010/2011**

Scope of Works:

1 Project Management
2 Remediation feasibility assessments
3 Laboratory Analytical
4 Site Specific Risk Assessments
5 Reporting
6 Permit application for construction of biopile
7 Develop Remedial Action Plan
8 Planning for 2011-2012 season

	Task	Unit	Quantity	Rate	Total	Subtotal	Total	Comments
1.0	**Consultant Project Management**	LS	1	$ 45,000.00	$ 45,000.00		**$ 45,000.00**	
2.0	**Remediation Feasibility Assessments**							
2.1	***Consultant mob/demob and disbursments***							
		hrs	653	$ 75.00	$ 48,975.00	**$ 48,975.00**		
2.2	***AEC 2***							
2.2.1	**Soil Sampling**							20 new testpits conducted to collect data
	Contractor fees (Excavator)	hrs	60	$ 200.00	$ 12,000.00			for SSRA
	Senior	hrs	30	$ 155.00	$ 4,650.00			10 new testpits conducted to investigate for
	Intermediate	hrs	60	$ 95.00	$ 5,700.00			background metals concentrations at the Airport
	Junior	hrs	60	$ 75.00	$ 4,500.00			
						$ 26,850.00		
2.2.2	**Groundwater Sampling and Monitoring**							
	Senior	hrs	0	$ 155.00	$ -			
	Intermediate	hrs	0	$ 95.00	$ -			
	Junior	hrs	0	$ 75.00	$ -			
						$ -		
2.3	***AEC 3***							
2.3.1	**Soil Sampling**							20 new wells installed
	Contractor fees	hrs	60	$ 200.00	$ 12,000.00			
	Senior	hrs	30	$ 155.00	$ 4,650.00			
	Intermediate	hrs	60	$ 95.00	$ 5,700.00			
	Junior	hrs	60	$ 75.00	$ 4,500.00			
						$ 26,850.00		
2.3.2	**Groundwater Sampling and Monitoring**							
	Senior	hrs	35	$ 155.00	$ 5,425.00			20 new wells and 3 existing wells
	Intermediate	hrs	69	$ 95.00	$ 6,555.00			
	Junior	hrs	69	$ 75.00	$ 5,175.00			
						$ 17,155.00		
2.4	***AEC 4***							
2.4.1	**Soil Sampling**							9 new wells installed
	Contractor fees	hrs	27	$ 200.00	$ 5,400.00			
	Senior	hrs	18	$ 155.00	$ 2,790.00			
	Intermediate	hrs	27	$ 95.00	$ 2,565.00			
	Junior	hrs	27	$ 75.00	$ 2,025.00			
						$ 12,780.00		
2.4.2	**Groundwater Sampling and Monitoring**							9 new wells and 3 existing wells
	Senior	hrs	36	$ 155.00	$ 5,580.00			
	Intermediate	hrs	36	$ 95.00	$ 3,420.00			
	Junior	hrs	36	$ 75.00	$ 2,700.00			
						$ 11,700.00		
2.5	***Bench Scale Testing***							
	Bench Scale Testing	LS	1	$ 50,000.00	$ 50,000.00	**$ 50,000.00**		To evaluate remedial options
						$ 194,310.00	**$ 194,310.00**	
3.0	**Laboratory Analytical**	LS	1	$ 50,000.00	$ 50,000.00		**$ 50,000.00**	
4.0	**Site Specific Risk Assessment**	LS	1	$ 150,000.00	$ 150,000.00	**$ 150,000.00**	**$ 150,000.00**	Where metals exceedences present
5.0	**Remediation Feasability Report**	LS	1	$ 70,000.00	$ 70,000.00		**$ 70,000.00**	
6.0	**Permit Application**	LS	1	$ 50,000.00	$ 50,000.00		**$ 50,000.00**	
7.0	**Develop Remedial Action Plan**	LS	1	$ 50,000.00	$ 50,000.00		**$ 50,000.00**	
8.0	**Planning for 2011-2012**	LS	1	$ 50,000.00	$ 50,000.00		**$ 50,000.00**	
	Costs for 2010/11						**$ 659,310.00**	
	Contingency (25%)						$ 164,827.50	
	TOTAL COSTS:						$ 824,137.50	

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
ENVIRONMENTAL SERVICES

PROJECT: **Cambridge Bay Airport Remediation**

Year: **Fiscal Year 2011/2012**

Scope of Works:

1 Project Management
2 Construction of biopile, excavation of contaminated soil and backfill
3 Groundwater Monitoring and Sampling
4 Laboratory Analytical
5 Remediation Report
6 Planning for 2012-2013 season

	Task	Unit	Quantity	Rate	Total	Subtotal	Total	Comments
1.0	**Consultant Project Management**	LS	1	$ 45,000.00	$ 45,000.00		**$ 45,000.00**	
2.0	**Construction of biopile, excavation of contaminated soil and backfill**							
2.1	***Consultant mob/demob and disbursments***							
	Biopile design	LS	1	$ 15,000.00	$ 15,000.00			
	Tender Package Prep	LS	1	$ 35,000.00	$ 35,000.00			
	Disbursments	LS	1	$ 58,000.00	$ 58,000.00	**$ 108,000.00**		
2.2	***Construction of biopile***							
	Contractor fees and equipment	sq.m.	10,000	$ 27.00	$ 270,000.00		10,000 sq.m facility at $27 /sq.m - generating 7,000 cu.m. backfill	
	Senior	hrs	30	$ 155.00	$ 4,650.00			
	Intermediate	hrs	110	$ 95.00	$ 10,450.00		11 days construction	
	Junior	hrs	110	$ 75.00	$ 8,250.00		11 days construction	
						$ 293,350.00		
2.3	***Excavation of contaminated soil and backfill***							
	Excavation of Impacted Soils							
2.3.1	**Consulting Lumpsum**	LS	1	$ 107,100.00	$ 107,100.00			
2.3.2	**Contractor Fees**							
	Fees	cu.m.	3500	$ 102.00	$ 357,000.00			
						$ 464,100.00		
							$ 865,450.00	
3.0	**Groundwater Monitoring and Sampling**							
	Groundwater Monitoring	LS	1	$ 20,000.00	$ 20,000.00		Assuming 35 wells to be sampled	
							$ 20,000.00	
4.0	**Laboratory Analytical**	LS	1	$ 50,000.00	$ 50,000.00		**$ 50,000.00**	
5.0	**Remediation Report**	LS	1	$ 70,000.00	$ 70,000.00		**$ 70,000.00**	
6.0	**Planning for 2012-2013**	LS	1	$ 50,000.00	$ 50,000.00		**$ 50,000.00**	
	Costs for 2011/12						**$ 1,100,450.00**	
	Contingency (25%)						$ 275,112.50	
	TOTAL COSTS:						$ 1,375,562.50	

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
ENVIRONMENTAL SERVICES

PROJECT: **Cambridge Bay Airport Remediation**

Year: **Fiscal Year 2012/2013**

Scope of Works:

1 Project Management
2 Excavation / Backfilll
3 Groundwater monitoring and sampling
4 Laboratory Analytical
5 Reporting
6 Planning for 2013/2014 season

	Task	Unit	Quantity	Rate	Total	Subtotal	Total	Comments
1.0	**Consultant Project Management**	LS	1	$ 45,000.00	$ 45,000.00		**$ 45,000.00**	
2.0	**Treatment of soil / excavation / backfill**							
2.1	***Consultant mob/demob and disbursments***							
	Consulting	LS	1	$ 99,000.00	$ 99,000.00	**$ 99,000.00**		
2.2	***Excavation and Backfill***							
2.2.1	**Contractor Fees**							3,500m3 excavated
	Excavation and bacfkill	cu.m	3500	$ 102.00	$ 357,000.00			3,500m3 backfill
	Soil Treatment	cu.m	3500	$ 46.00	$ 161,000.00			Treat Soil from previous year and Stockpile at the LTF
						$ 518,000.00		
							$ 617,000.00	
3.0	**Groundwater Monitoring and Sampling**							
	Groundwater Monitoring	LS	1	$ 20,000.00	$ 20,000.00		**$ 20,000.00**	Assuming 20 wells sampled
4.0	**Laboratory Analytical**	LS	1	$ 50,000.00	$ 50,000.00		**$ 50,000.00**	
5.0	**Remediation Report**	LS	1	$ 70,000.00	$ 70,000.00		**$ 70,000.00**	
6.0	**Planning for 2013-2014**	LS	1	$ 50,000.00	$ 50,000.00		**$ 50,000.00**	
	Costs for 2007/08						**$ 852,000.00**	
	Contingency (25%)						$ 213,000.00	
	TOTAL COSTS:						$ 1,065,000.00	

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
ENVIRONMENTAL SERVICES

PROJECT: **Cambridge Bay Airport Remediation**

Year: **Fiscal Year 2013/2014**

Scope of Works:

1 Project Management
2 Treatment / Excavation / Backfill
3 Groundwater monitoring and sampling
4 Laboratory Analytical
5 Reporting
6 Planning for 2014/2015 season

	Task	Unit	Quantity	Rate	Total	Subtotal	Total	Comments
1.0	**Consultant Project Management**	LS	1	$ 45,000.00	$ 45,000.00		**$ 45,000.00**	
2.0	**Treatment of soil**							
2.1	***Consultant mob/demob and disbursments***							
	Consulting	LS	1	$ 150,000.00	$ 150,000.00	**$ 150,000.00**	**$ 150,000.00**	
2.2	***Treatment / Excavation / Backfill***							
2.2.1	**Contractor Fees**							
	Treatment	cu.m.	3500	$ 46.00	$ 161,000.00			3,500 cu.m. treated
2.2.2	**Contractor Fees**							3,500m3 excavated
	Excavation and bacfkill	cu.m	3500	$ 102.00	$ 357,000.00			3,500m3 backfill
							$ 518,000.00	
3.0	**Groundwater Monitoring and Sampling**							
	Groundwater Monitoring	LS	1	$ 20,000.00	$ 20,000.00	**$ 20,000.00**	**$ 20,000.00**	Assuming 20 wells sampled
4.0	**Laboratory Analytical**	LS	1	$ 50,000.00	$ 50,000.00	**$ 50,000.00**	**$ 50,000.00**	
5.0	**Remediation Report**	LS	1	$ 70,000.00	$ 70,000.00	**$ 70,000.00**	**$ 70,000.00**	
6.0	**Planning for 2014-2015**	LS	1	$ 50,000.00	$ 50,000.00		**$ 50,000.00**	
	Costs for 2007/08						**$ 903,000.00**	
	Contingency (25%)						$ 225,750.00	
	TOTAL COSTS:						$ 1,128,750.00	

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
ENVIRONMENTAL SERVICES

PROJECT: **Cambridge Bay Airport Remediation**

Year: **Fiscal Year 2014/2015**

Scope of Works:

1 Project Management
2 Treatment / Excavation / Backfill
3 Groundwater monitoring and sampling
4 Laboratory Analytical
5 Reporting
6 Planning for 2015/2016 season

	Task	Unit	Quantity	Rate	Total	Subtotal	Total	Comments
1.0	**Consultant Project Management**	LS	1	$ 45,000.00	$ 45,000.00		**$ 45,000.00**	
2.0	**Treatment of soil**							
2.1	***Consultant mob/demob and disbursments***							
	Consulting	LS	1	$ 150,000.00	$ 150,000.00	**$ 150,000.00**		
2.2	***Treatment / Excavation / Backfill***							
2.2.1	**Contractor Fees**							
	Treatment	cu.m.	3500	$ 46.00	$ 161,000.00			3,500 cu.m. treated
2.2.2	**Contractor Fees**							3,500m3 excavated
	Excavation and bacfkill	cu.m	3500	$ 102.00	$ 357,000.00			3,500m3 backfill
							$ 518,000.00	
3.0	**Groundwater Monitoring and Sampling**							
	Groundwater Monitoring	LS	1	20000	20000	**$ 20,000.00**	**$ 20,000.00**	Assuming 20 wells sampled
4.0	**Laboratory Analytical**	LS	1	$ 50,000.00	$ 50,000.00	**$ 50,000.00**	**$ 50,000.00**	
5.0	**Remediation Report**	LS	1	$ 70,000.00	$ 70,000.00	**$ 70,000.00**	**$ 70,000.00**	
6.0	**Planning for 2015-2016**	LS	1	$ 50,000.00	$ 50,000.00	**$ 50,000.00**	**$ 50,000.00**	
	Costs for 2014/2015						**$ 753,000.00**	
	Contingency (25%)						$ 188,250.00	
	TOTAL COSTS:						$ 941,250.00	