APPENDIX 4: FOX-C 2008 Construction Clean-up Summary Final Report

AECOM

Public Works and Government Services Canada

FOX-C Ekalugad Fiord
2008 Construction Clean-Up Summary

Prepared by:

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Project Number: 2977-328-04
Date: April 28, 2009

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April 28, 2009 File Name: 2977-328-04

Brad Thompson
Environmental Engineer
Public Works and Government Services Canada
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Edmonton, AB, T5J 1S6

Dear Brad:

Re: FOX-C Ekalugad Fiord - 2008 Year End Report

AECOM Canada Ltd. is pleased to present our year-end report for the FOX-C Ekalugad Fiord site remediation project. This report summarizes the construction clean-up and quality assurance work carried out at this site during the 2008 season.

Please do not hesitate to contact us if you have any questions.

Sincerely,
AECOM Canada Ltd.

David Gilbertson, P.Eng.
david.gilbertson@aecom.com

KS:nlm

Revision Log

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Date Apr 29/09
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NWT/NU Association of Professional Engineers and Geoscientists

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1.0 Introduction

1.1 Background

Public Works and Government Services Canada (PWGSC) have signed a Service Level Agreement with Indian and Northern Affairs Canada (INAC) to deliver the remediation of northern military sites as part of the Northern Contaminated Sites Program. INAC is responsible for the clean-up of intermediate DEW Line sites, including FOX-C, Ekalugad Fiord.

FOX-C is located on the east coast of Baffin Island at 68°42'N, 68°33'W in the Territory of Nunavut. The site is situated on the south shore of Ekalugad Fiord, approximately 260 km south of the community of Clyde River and 240 km northwest of Qikiqtarjuaq.

In 1957, FOX-C was constructed as an intermediate DEW Line site. The site was abandoned in 1963 and responsibility was transferred to INAC. An overall site plan of the FOX-C, DEW Line Site showing the site layout is provided on Figure 1.0 in Appendix A.

The FOX-C site consists of four main areas including the Beach and Water Lake areas at the Lower Site and the Mid Station and Upper Station areas at the Upper Site. A glacier opposite the Mid Station Area feeds a river that flows along the Upper Station access road to the lake. Several areas of the Upper Station access road were impassable prior to the initiation of the work, due to washout from the glacier.

The Lake Area at FOX-C is accessed by a 1.1 km long access road to the southwest of the junction. The Beach Area is located approximately 2.2 km from the junction and included two petroleum, oil, lubricant (POL) tanks, barrel caches, and abandoned construction equipment. The Water Lake included various debris areas and a large area of unexploded blasting caps.

The Mid Station area is located at the base of the summit approximately 500 m to the east of the Upper Station Area. The area consisted of a dump area, barrel storage pad, four former Quonset buildings and other site debris.

The Upper Station is approximately 5.9 km from a junction at the lower site where the access roads from the Water Lake, Beach and Upper Site meet; it is located on a summit at elevation 770 m above mean sea level. The Upper Station facilities included a module train, warehouse, garage, Inuit house, a former Quonset building, two POL tanks, a radar tower, and other site debris.

The FOX-C clean-up contract was tendered as two contracts, a remediation contract and a camp operations contract. Qikitaaluk Corporation (QC) was the successful bidder for both contracts. Mobilization to site took place in 2005 and construction activities began in June 2006.

AECOM Canada Ltd. (AECOM), an amalgamation of Earth Tech, Gartner Lee, TSH and UMA, was retained by PWGSC to provide site supervision, construction contract administration, geotechnical and environmental services for the clean-up of the FOX-C DEW Line site.

This report is a summary of the construction clean-up and quality assurance work carried out during the 2008 construction season.

1.2 Remediation Team

Key personnel involved in the clean-up of the FOX-C site during the 2008 construction season were:

CLIENT

For the purposes of the FOX-C clean-up, INAC is the Owner. PWGSC acts as the Owner's Engineer.

INAC Representative.....Mark Yetman
PWGSC Project Manager.....Brad Thompson

CONTRACTOR

Site Superintendent.....Jean Louis Bertrand
Contractor's Engineer.....Greg Johnson
Camp Superintendent.....Chris Giroux
Hazardous Waste Specialist.....Pierre Bergeron

AECOM

Project Principal .....Rudy Schmidtke
Project Manager.....David Gilbertson
Resident Engineer.....Rob Nichol
Site Geotechnical Support.....Chris Kjarsgaard
Site Environmental Support.....Cathy Corrigan

1.3 Summary of Remediation Plan

A Remedial Work Plan (RWP) was developed in 2005 by AECOM to address remediation strategies for issues of environmental concern that remain as a result of the operation of this DEW Line site. The intent of the remediation plan was to mitigate and/or control contaminant migration to the surrounding environment. A summary of the RWP is presented below:

- Tier I contaminated soils will be excavated and placed in the on-site Non-Hazardous Waste Landfill (NHWL). The NHWL will also be used for disposal of all non-hazardous site debris and demolition materials;
- All Tier II and CEPA/hazardous contaminated soils will be shipped off-site to an approved soil disposal facility. Additionally, all hazardous waste debris and demolition materials will be shipped off-site;
- F1/F2 petroleum hydrocarbon (PHC) contaminated soil on-site will be remediated by landfarming. Soils located at the Beach POL will be excavated and landfarmed at the constructed lower site landfarm. The Upper Station POL F1/F2 soils will be landfarmed in place;
- F3/F4 PHC contaminated soil will be excavated and placed in the NHWL or regraded with a minimum 0.75 m of fill;
- Two main dump areas were identified in the RWP; the Garage Dump and the Mid Station Dump. All site landfills are to have any surface debris removed, contaminated soil excavated and disposed of, as appropriate, buried debris excavated and the dump backfilled and regraded; and
- Barrels on-site will be tested for the INAC incineration criteria. All liquids that meet the incineration criteria will be incinerated on-site; the remainder will shipped off-site for disposal.

2.0 Overall Remediation Summary (2005 - 2008)

A brief summary of construction activities from 2005 - 2008 follows. Work activities for 2006 and 2007 are detailed in *2006 Construction Clean-Up Summary* and *2007 Construction Clean-Up Summary*.

2.1 Schedule

The contractor mobilized equipment and materials via sea lift in 2005.

In 2006, site activities included the partial construction of the Lower Site non-hazardous waste landfill (NHWL), the landfarm, the sewage lagoon, part of the Mid Station NHWL, and the access road. The camp opened on June 19, 2006 and closed for the season September 18, 2006.

The 2007 construction season began with mobilization to site on July 12, 2007 and was completed on September 13 2007. Main construction activities in 2007 included continued work on the Lower Site NHWL, debris collection at the Upper Site and Mid Station, Upper Site building demolition and some contaminated soil excavation.

The project was extended an additional year due to a number of factors. In 2008 NHWL capping, in-situ landfarm operation, contaminated soil excavation and Lobe B excavation were completed.

2.2 Non-Hazardous Waste Landfill Construction

Construction began on the Lower Site Non-Hazardous Waste Landfill (NHWL) in 2006. In 2007, the east and south berms were realigned to accommodate waste from the Mid Station and the Upper Site. Landfill construction was completed at the end of the 2008 season. Five monitoring wells were installed around the perimeter of the landfill for future monitoring.

Berm construction for the Mid Station NHWL began in 2006; however, limited sources of suitable borrow for landfill berm construction was available. A decision was made to forgo the construction of the Mid Station NHWL and place the waste designated for the Mid Station NHWL in the Lower Site NHWL.

The landfill was redesigned to accommodate 18,400 m^3 of waste. The total volume of non-hazardous waste collected from the site was less than anticipated and field adjustments to the east berm and final cap grades were required to account for the smaller volume of waste placed in the landfill.

Waste was placed in the landfill throughout the three construction seasons. Waste was placed in 0.5 metre lifts with a 0.15 m layer of intermediate fill between each layer of waste. Intermediate fill consisted of Type 6 material, Tier I or F3/F4 hydrocarbon contaminated soil. The waste was compacted between each lift. A 1.0 m thick cap was placed on the landfill.

2.3 Landfarm Construction

The landfarm was constructed to initial design capacity in 2006. Further expansion was required in 2006 to accommodate additional PHC (petroleum hydrocarbon) soils identified at the Beach POL and Water Lake; however, the landfarm expansion was not commissioned until 2008 when the additional soils were excavated from the Beach POL.

The landfarm was tilled using a backhoe by excavating the contaminated soil and replacing it within the landfarm. Approximately 1,238 m^3 F1/F2 hydrocarbon contaminated soil was treated at the landfarm.

Samples were collected from the landfarm in an approximately 10 m by 5 m grid. Grab samples were collected at 0.3 m intervals and composited over the depth of the sample location.

The landfarm was closed at the end of the 2008 season after confirmatory sample results indicated that the PHC soils within the landfarm were below criteria limits. The landfarm was decommissioned by flattening the berms and recontouring the area to match the surrounding terrain.

2.4 Remediation of Contaminated Soil

Beach POL (BP-PHC-01)

Additional investigations were conducted in 2006 to further delineate the PHC contaminated soil area. Testing indicated that the area was larger than previous investigations had identified, and F1 fraction hydrocarbons were detected in the area, in addition to the F2 fraction hydrocarbons that were found during the initial investigations. No clean edge was identified during 2006, no work was completed in the area in 2007 and the excavation was completed in 2008. In total, 1,013 m^3 PHC soil was excavated from the Beach POL, and taken to the landfarm for treatment.

Water Lake (WL-PHC-01 and WL-PHC-02 and LD-PHC-01 through 04)

Investigations in 2006 identified approximately 225 m^3 of F2 hydrocarbon contaminated soil in two areas at the Water Lake. This soil was excavated and transported to the landfarm in 2006. Confirmatory sampling and additional test pitting in the area in 2007 increased the volume of soil for treatment to 1500 m^3. Due to capacity limitations of the landfarm and the generally lower contaminant levels of the soil, in-situ treatment of the areas was considered a viable alternative to ex-situ treatment. Approval was obtained from the Nunavut Water Board and Nunavut Impact Review Board, and in-situ landfarming began on July 6, 2008. Samples obtained in August 2008 indicated that the area met site clean-up criteria and it was subsequently regraded.

Samples of the in-situ treatment area were taken on an approximately 5 m by 6 m grid. Composite samples were taken over to a 1.0 m depth at 0.3 m intervals.

Three debris areas (labelled LD-PHC-01 through 03) were identified during the 2008 construction activities and were regraded. One area of F3/F4 hydrocarbons (LD-PHC-04) had been identified during the site investigation. The four areas were regraded with 0.5 m of Type 2 material.

River Debris Area

Surficial debris from an area of debris located near the river was removed in 2006. In 2008, confirmatory samples were taken from the area and results of analyses were below the clean-up criteria. The remaining scattered surficial debris was removed and the area was accepted as complete.

Mid Station Barrel Dump (MBD-PHC-01)

The Mid Station Barrel Dump was regraded in 2006 after additional delineation sampling indicated that hydrocarbon impacts extended further than the original limits. A 0.5 m layer of Type 2 material was placed on the area. In 2007, a second lift of 0.5 m of Type 1 material was placed on top of the regrade to increase its stability. A small stained area to the north of the regrade that had been covered with barrels in previous years was regraded in 2008 with 0.5 m of Type 2 material. The final regrade area was 1,655 m^2 with a regrade thickness of 1.0 m over the original regrade area and 0.5 m over the extension.

Quonset Hut (QH-MET-01, QH-PHC-01 and QH-PHC-02)

In 2006, both Quonset Hut regrade areas were expanded to include additional staining found in the area. Delineation sampling was conducted on the Tier II area to define the excavation limits. Thirty-six cubic metres of Tier II soil was excavated in 2008 and packaged in Quatrex bags for off-site shipment. Stained soils located on a bedrock outcrop near the middle of the north regrade were placed into the lower portion of the contaminated soil area and regraded with 0.5 m Type 2 fill. A total area of 1,336 m^2 was regraded with 0.5 m Type 2 material. A small area of staining was identified after regrading activities in 2008 at the north regrade and additional fill was placed for cover.

The southern Quonset Hut regrade (QH-PHC-02) was resized based on sample results from 2006 and 2007. It was regraded in 2008. The area was reduced in size to 31 m^2 and was regraded with a 0.5 m layer of Type 2 fill.

Upper Site POL (UP-PHC-01 and UP-PHC-02)

Delineation sampling at the Upper Site F1/F2 contaminated soil area indicated that there was a small impacted soil area located down-gradient of the main area. This was partially excavated in 2007 and placed within the larger area located up-gradient. Regrading of the main (up-gradient) contaminated soil area and the partially excavated smaller area was completed in 2008. The final regrade area was 615 m^2 and was covered with 0.7 m of Type 2 fill.

The Upper Site F1/F2 contaminated soil near the POL was intended to be landfarmed in-situ. However, due to the location of the soil on bedrock that was not conducive to landfarming, there was greater than 2000 m to the nearest water source, a lack of vegetation and fauna and no human receptors, the area was regraded instead.

Tower (T-PHC-01)

The Tower F3/F4 contaminated soil areas were expanded to be one area instead of three separate areas.

The RWP recommended excavating and backfilling the area, and work commenced in 2007. Wet conditions persisted throughout the 2007 season and into 2008 and made completing the excavation difficult. The portion that could be excavated was backfilled in 2007. The size of the area (<200 m^2) and the low mobility of the F3/F4 hydrocarbons made regrading a more feasible option. The final regrade area was 172 m^2 with a 0.5 m layer of Type 2 fill.

Warehouse (WH-PHC-01 and WH-MET-01)

The Warehouse F1/F2 PHC soil area was reduced in size in 2006 based on delineation and regraded with a minimum 0.5 m Type 2 material in 2007. Regrading the area was considered an acceptable remedial option instead of landfarming based on the small area of impacted soil (<25 m^2), the surface concentration of hydrocarbons being only slightly elevated above the criteria limit of 900 mg/kg at 1,100 mg/kg F2 and the low likelihood of exposure from the impacted area.

There were 3.2 m^3 Tier II soil excavated from the south end of the Warehouse and placed in Quatrex bags for off-site shipment in 2007. The excavation was backfilled in 2008.

Three sides of the Warehouse foundation were regraded with Type 2 material in 2007 and the remaining side was regraded in 2008. The total regrade area was 112 m^2 with a depth of 1.0 m.

Garage (G-MET-01, 02 and 03 and G-PHC-01)

The Tier II/F3/F4 excavation was extended both laterally and at depth to account for additional Tier II PCBs detected during confirmatory sampling. The Tier I lead area and F3/F4 area were excavated and placed within the Garage Dump regrade limits, which was then covered with a minimum 0.7 m fill. Following confirmatory sampling, the excavation areas were backfilled and regraded with the garage pad. The final regrade area was 2,256 m^2.

Soil contaminated with leachable lead located in the Garage Dump was excavated and packaged for disposal off-site in 2007. Approximately 8 m^3 was excavated and placed in Quatrex bags for off-site shipment. The area was backfilled with the Garage Dump regrade.

The garage pad slab was also regraded to cover some staining that was identified during the 2008 construction activities.

The Garage Debris Area F1/F2 PHC soil area was regraded in 2007 as per the RWP.

Module Train (MT-PHC-01, 02, MT-MET-01 and MT-PCB-01, 02)

The Module Train F3/F4 (MT-PHC-01) area identified for scarification was regraded with 0.7 m Type 1 material over an area of 245 m^2 in 2007 due to the rocky terrain and difficulty of scarification. The F1/F2 PHC (MT-PHC-02) area was also regraded with 0.7 m Type 2 material instead of being excavated based on low likelihood of exposure (distance to nearest water source, lack of terrestrial/bird habitat and minimal vegetation). The final Module Train regrade area was 1,618 m^2.

Tier II area MT-PCB-01 was excavated in 2007 and 15 m^3 of contaminated soil was placed in Quatrex bags for off-site disposal. MT-PCB-02 was excavated in 2007 and approximately 4.5 m^3 Tier II soil was excavated and placed in Quatrex bags. Tier I soil remained along the west wall of the excavation as well as at depth after excavation was complete.

The Tier I soil remaining after the excavation of the Tier II material was regraded with MT-PHC-02. Tier I soil does not pose a leachate risk, therefore, is only excavated to a depth of 0.3 m and backfilled with clean fill. This remediation strategy limits potential exposure. Leaving the Tier I soil in placed and regrading with a minimum 0.3 m clean fill is considered an equivalent remedial option.

Main Landfill (ML-MET-01 and ML-PCB-01, 02, 03, 04, 05)

The Main Landfill Tier II area was excavated in 2007 and backfilled with clean fill in 2008. A total of 15 m^3 Tier II soil was excavated and placed in Quatrex bags.

The Main Landfill Tier I areas were originally to be excavated; however, the areas were only slightly elevated above the Tier I criteria for PCBs, there was only a small amount of soil medium in the area, the receptor risk was low and excavation in the area would have been difficult, regrading was deemed a more viable option. In 2008, additional delineation sampling was conducted on the Main Landfill Tier I area resulting in the area being revised to five smaller areas. The five Main Landfill areas were regraded with 0.5 m of Type 2 material covering 219 m^2.

Upper Site Debris Areas

Both the West Laydown and East Laydown debris areas were regraded in 2007 with 0.7 m of Type 2 material. The West Laydown debris area covered 433 m^2 and the East Laydown debris area covered 520 m^2.

2.5 Collection of Site Debris

The major debris areas on-site included: the Main Dump, Main Tower, Quonset building, Inuit House, Mid Station Dump Lobe A, Mid Station Barrel Dumps, Quonset Hut, Water Lake, AST (above ground storage tank) Site, and Vehicle and Equipment Debris Areas. Debris collection was completed at the Lower Site in 2006, at the Upper Site in 2007 and the Mid Station in 2008. Non-hazardous debris was placed in the landfill, while hazardous debris was containerized for off-site disposal. In addition to these areas, debris was also removed from within 50 m of existing roadways or site infrastructure and watercourses.

Non-hazardous debris consisted of empty barrels, wood, scrap metal and domestic waste. Hazardous debris consisted of batteries, asbestos and hydrocarbons from barrels.

Debris collection from the original FOX-C camp, along the river and from below Lobe B was slung from these difficult to reach areas with the assistance of a 206 and a 212 helicopter. River debris was collected during low water periods and before September 1 each year.

Decommissioning of Unexploded Ordnance

Six areas were identified in 2006 as having unexploded ordnance (UXO) consisting of blasting caps and dynamite. During the 2007 field season, Notra Inc. (Notra) was retained by PWGSC to decommission the UXO. In total, 15,015 blasting caps and 3 sticks of dynamite were destroyed by Notra.

Additional blasting caps were found in 2007 after Notra left site as well as in 2008. Kudlik Construction Ltd. was contracted to decommission the additional caps. Blasting cap disposal was completed by July 16, 2008. Remaining wires from the blasting caps were incinerated under the supervision of the site health and safety officer in a restricted-access area.

2.6 Demolition of Infrastructure

Hazardous material was removed from the Module Train, the Garage and the Warehouse in 2006 and 2007. Asbestos abatement was completed in 2006 and PAP (PCB amended paint) material removal was completed in 2007. PAP materials were placed into marine shipping containers for off-site disposal and asbestos materials were double wrapped and placed in the northeast corner of the NHWL at the Lower Site. All non-hazardous building materials were placed in the NHWL. Additional site infrastructure removed was the Upper Site POL and the Beach POL and was completed in 2007.

Foundation pads for the Garage and the Warehouse remain at site. They were regraded with Type 2 material. Six anchor blocks remain on-site. Three anchor blocks were regraded, or partially regraded with Type 2 material. The remainder were left untouched due to their location on-site and the quantity of fill that would have been required for the regrades.

2.7 Summary of Borrow Areas

Material for the 2006 through 2008 construction seasons was obtained from Borrow Areas 1 through 7. The following table outlines the volume of material excavated from each borrow area each season.

Table 1.0: Borrow Volumes (in m^3)

Borrow Area	2006	2007	2008	Total
1	1,365	1,586	288	**3,239**
1B	0	716	0	**716**
1C	0	982	45	**1,027**
1D	2,173	126	2,780	**5,079**
2	152	0	582	**734**
3	1,087	2,661	0	**3,748**
3A	2,346	821	3,160	**6,327**
3B	763	0	311	**1,074**
4	2,372	0	0	**2,372**
5	0	0	0	**0**
6	0	0	0	**0**
7	16,992	9,977	9,161	**36,130**
Total	**27,250**	**16,869**	**16,327**	**60,446**
Crown Subtotal	**6,822**			
IOL Subtotal	**53,624**			

Both the Crown and the Qikiqtaaluk Inuit Association (QIA) manage surface mineral rights at FOX-C. Crown land is administered by INAC and generally comprises the Mid Station and Upper Site. Inuit Owned Land (IOL) is administered by the QIA and generally consists of areas below the Mid Station. Borrow areas used during construction were reshaped to match natural ground conditions and to promote positive drainage.

2.8 Remediation Support Activities

Sewage Lagoons

In 2006, a temporary lagoon was established to support the camp while construction of the permanent lagoon was underway. The lagoon was pumped out to the permanent lagoon during the 2007 season and the lagoon was decommissioned and reshaped to match the surrounding ground.

The original two-celled synthetically lined design of the permanent lagoon was altered to a single cell design with a natural liner due to wet ground conditions. Low permeability native soils at the proposed location were suitable to use as liner material. Work proceeded intermittently during the 2006 season and soft ground precluded the completion of the berms to design grade. The lagoon was commissioned with the condition that the levels of wastewater remain at least 300 mm below the top of the north berm.

The lagoon berms were completed to design grade in 2007 and the lagoon was used throughout the 2007 and 2008 field seasons. The lagoon was decommissioned at the end of the 2008 season by removing the berms and covering and shaping the area.

Helicopter

A helicopter was used throughout construction as the main means of transportation. A Bell-212 helicopter was dedicated to the project during all three construction seasons.

2.9 Access Road

Reconstruction and maintenance constituted the majority of road work done in the 2006 season. A portion of the road between Borrow Area 2 and River Crossing 1 (RC1) was slumping and had to be rerouted. Nine culverts were installed in locations where the road crossed streams.

Site roads were upgraded during 2006 to an extent that only river crossing reconstruction, culvert installation, and road maintenance were required for subsequent seasons.

River Crossing 1 was constructed in early July 2006 as a porous embankment. As flow increased in the river throughout July, water began to back up behind RC1. River flow commonly overtopped the embankment, sometimes by up to 0.5 m. Based on observations of the downstream side of the embankment, the porosity of the embankment was being reduced over time as sand and silt filled pore spaces between the boulders and cobbles. The contractor installed a 900 mm culvert and a 600 mm culvert in the river crossing in 2006 until the sealift arrived and more large culverts were available. At the end of August 2006 a night of heavy rainfall resulted in the washout of the 600 mm culvert and a subsequent failure of RC1. The crossing was redesigned to incorporate nine 1,200 mm culverts. This design worked adequately throughout the 2007; no problems were encountered. Warm weather and rainfall in late July 2008 lead to RC1 being breached twice to prevent the culverts from washing downriver. The culverts were removed at the end of the season in 2008 and the rocks and fill from the river crossing were reshaped to match the riverbanks.

River Crossing 2 (RC2) originally incorporated a porous embankment similar to the one employed at RC1; however, when it became evident that the embankment at RC1 was not performing adequately, RC2 was redesigned in 2006 as a conventional culvert crossing with two of the nine 1,200 mm culverts installed. In 2007, seven additional 1,200 mm culverts were installed at RC2. The river crossing performed adequately in 2007. The crossing was breached twice in late July 2008 to prevent culvert washout. The culverts were removed at the end of the season in 2008 and the rocks and fill from the river crossing were reshaped to match the riverbanks.

The culverts removed from the road between the Mid Station and RC1 were placed in the NHWL and all culverts between RC1 and the camp were shipped off-site for disposal.

Drainage ditches were excavated on both sides of the road between the camp and the non-hazardous landfill and along one or both sides of the road between RC1 and the Mid Station landfill. The road required on-going maintenance throughout the season. A portion of the drainage ditch excavated on the upslope side of the road between RC1 and River Crossing 2 exposed permafrost at the base of the ditch. Slumping of the slope occurred approximately 160 m beyond the second RC1 switchback. Large boulders were placed on the slumped portions of the slope to provide support. Freeze back of the area stabilized the slope in 2007 and limited movement was noted in 2008.

At the end of construction in 2008, a portion of the road between the Mid Station and the junction between the main road and the road to the Water Lake was scarified as per an agreement between INAC and the Qikiqtanni Inuit Association. The road from the former camp to the water lake was left intact at the request of the local inhabitants. Roadside ditches excavated throughout construction were backfilled with material from the sides of the ditches and the road.

2.10 Mid Station Dump Lobe B Excavation

Lobe B was located approximately 450 m to the east of the Upper Station within an elevated u-shaped saddle on the north side of the access road. The dump was located over a ridge on a steep slope. The dump area consisted of concentrated debris including barrels, domestic waste and miscellaneous wood and metal. Dump excavation began in 2007. A thaw and excavate approach was implemented, where debris was removed and the underlying material allowed to thaw; however, generally cool temperatures slowed the melt of Lobe B and only 31 loads of surficial debris and landfill material was removed.

Several options for the remediation of Lobe B were considered for the 2008 season; continuing the strip and thaw technique, melting the ice and using explosives to loosen the debris. The use of explosives was considered the quickest option and the one most likely to allow complete excavation in one season and was implemented in 2008.

A total of 2,196 m^3 of debris a soil was removed from Lobe B in 2008. The debris and soil were sorted, sampled and either containerized for off-site disposal or placement in the NHWL based on the sample results. The excavation base of Lobe B was sampled and an area of Tier I soil was regraded with 0.3 m Type 2 material before the boulders that were moved to side during landfill excavation were placed in the excavation to match the existing terrain.

2.11 Disposal of Hazardous Waste

Hazardous waste containerized at FOX-C was removed during September 2008. PWGSC contracted QC to ship and facilitate disposal/destruction of this waste at suitable disposal facilities, through a Change Order.

A summary of the hazardous waste details, including dates, number of loads, disposal location and weight of loads is given in Section 4.0. A total of 86,160 kg of hazardous materials, including PCB-Amended Painted (PAP), CEPA soils and leachable lead painted waste from the FOX-C site was containerized and disposed of. Additionally, 1,201,200 kg of Tier II contaminated soil, 4 Quatrex bags of lead batteries and 315 drums of barrel contents was shipped off-site for disposal.

2.12 Construction Challenges

The challenges at FOX-C are typical of northern site restoration construction activities. Generally, the remedial measures implemented were successful in mitigating challenges encountered. Some challenges overcome during construction were:

- Site conditions during mobilization, 2005 - soft, wet silty soils at the beach landing area hindered efforts to unload barges during mobilization. Construction of a barge landing area using free-draining soils provided a stable staging area to support subsequent sealift access to the site;
- Site road conditions, 2006 - deteriorating permafrost within the roads contributed to soft conditions necessitating increased on-going maintenance on the roads. Preventative maintenance, ditches and berms on the road improved drainage and maintained permafrost conditions for subsequent seasons;
- River crossings, 2006 - high sediment loads from the river clogging pore spaces contributed to breaches in the permeable rock fill temporary crossings during high flow events. Replacement of the permeable rock fill with large-diameter culverts capable of carrying the glacial sediment improved performance of the river crossings in subsequent seasons;
- Lack of suitable borrow material at the Mid Station and Upper Site, 2006 and 2007 - soils were often significantly wet of optimum moisture and finer-grained than anticipated, limiting the quantity of borrow materials suitable for construction. Additional borrow sources were identified, and minor changes to the design were made to better utilize the material available on-site;
- Late seasonal access to the site, 2007 - late spring in 2007 delayed the start of work. Scheduling for 2008 took inclement weather into account;
- Poor weather impacting re-supply, 2007 - inclement weather during the 2007 limited operation of the helicopter, the main mode of transportation to site. Alternative modes of accessing the site were arranged for 2008;
- Frozen conditions preventing the excavation of Lobe B, 2007 - cool weather and late-season conditions in 2007 limited the effectiveness of the strip-and-thaw method envisioned for excavating Lobe B. Lobe B was drilled and blasted to break the frozen ground in 2008; and
- Larger than anticipated PHC soil volumes requiring in-situ treatment - the landfarm was designed to accept the volume of PHC soil identified during the site investigations; however the contaminated soil areas were generally larger than anticipated. Therefore, soils identified as having higher contamination or in locations of higher environmental risk were moved and treated in the landfarm, and lesser-contaminated and lower-risk soils were remediated in place, consistent with the intent of the RWP.

3.0 2008 Site Activities

3.1 Environment, Health, and Safety

Health and Safety

Prior to mobilization in 2005, the contractor submitted a detailed health and safety plan. The plan outlined the policies and safe work practices that all personnel on-site were to follow and personal protective equipment to be worn. A medic and health and a safety officer were on-site for the duration of the field season.

A site orientation was given to all personnel upon arrival at site. The orientation was presented by the contractor and consisted of an overview of the site activities, locations of safety and medical supplies on-site, and requirements for personal protective equipment to be worn on-site.

The contractor established a health and safety committee and held meetings twice during the season. Copies of the meeting minutes are in Appendix G on the CD.

Spill kits and fire suppression supplies were located near key work areas on-site. The supplies consisted of fire extinguishers and sorbent pads and booms.

Copies of all incident and accident reports and spill reports received are in Appendix G, on the CD. A summary of the weekly medic's reports are in Appendix G, on the CD.

Two unauthorized sewage lagoon discharges were reported in 2008. A summary of unauthorized discharges occurring during the 2008 field season follows in the wastewater summary of Section 3.2.

A summary of health and safety incidents that occurred in 2008 follows:

- An employee injured his leg when tightening a turn buckle strap;
- An ATV rollover;
- An employee amputated his left middle fingertip while removing a tire from its rim;
- A dump truck was damaged after the box of the truck flipped; and
- Injuries were sustained from a blasting cap detonation during debris clean-up (cuts to face and upper body).

Temporary PCB Storage Area

The temporary PCB storage area was relocated closer to the barge landing area to facilitate PCB-amended paint (PAP) removal from site. The old storage area located in Borrow Area 3 was confirmatory sampled and six results exceeded PCB Tier I criteria. The six areas with exceedances were excavated to 0.3 m and backfilled. The Tier I soil was placed in the NHWL. Sample results are in Table 1.0 in Appendix B.

The relocated PCB storage area was baseline sampled prior to commissioning. No repackaging was conducted in the area; therefore, the baseline samples were not submitted.

3.2 Camp Operation

Camp

The camp at FOX-C consisted of 18 modular trailers with living, eating and sleeping quarters, one mechanical / water storage trailer, one recreation room and two gensets. The maximum occupancy of camp during the field season was 48.

The camp wastes were incinerated and the ash was deposited in the non-hazardous waste landfill located at 68°43'21" N 68°38'56" W, as shown on Figure 5.0 in Appendix A.

Camp dismantling was completed on September 6, 2008. The camp was shipped off-site with the rest of the contractor's equipment on September 14, 2008. The sea-lift arrived on September 13, 2008. All Tier II soil and hazardous materials, along with the contractor's camp and equipment were loaded on September 13 and September 14. The sea-lift left site on September 14, 2008 and final demob was completed on September 15, 2008.

Potable Water

The source of the camp's potable water supply was located at 68°43'38" N 68°39'10" W. The location has been marked on Figure 1.0 in Appendix A. Typically, 11 m^3 of water was hauled to camp per day. Full water supply logs are on the CD in Appendix G.

Potable water samples were taken on June 30, July 21, and August 4, 2008. All potable water samples met Health Canada Guidelines for Canadian Drinking Water Quality. Sample results are in Table 2.0 in Appendix B and on the CD in Appendix G.

Small organisms were discovered within the potable water source on August 18, 2008 and the contractor immediately switched to bottled water for consumption of camp personnel until an alternate source of water could be found and analysis confirming the water quality could be shown. Due to the short time remaining in the season, the contractor decided to switch to bottled water as potable water for the remainder of the season. The water source was still used for non-potable water and for use in the kitchen; however, the water was boiled before use in the kitchen.

The QIA visited site on September 2 and requested that the water quality of the lake and river be tested. Samples were taken from three different areas around site; glacier runoff to the Water Lake, the river from the Water Lake to the Fiord and the Fiord near the river discharge. The results were compared to the Canadian Water Quality Guidelines for the Protection of Aquatic Life (Marine and Freshwater).

Several parameters exceeded guidelines for aluminum, chromium, copper, nickel, lead, and hexavalent chromium in the sample obtained from the glacier runoff toward the Water Lake (sample 1257). This sample was taken from the glacier runoff toward the Water Lake. High suspended solids in the sample likely contributed to the exceedances. The river sample taken between the Water Lake and the Fiord exceeded guideline values for aluminum, chromium, and copper, also likely due to high suspended solids. Sample results are in Table 3.0 in Appendix B.

Wastewater

Camp grey water and sewage was directed to the sewage lagoon at 68°44'43" N 68°39'11" W as shown on Figure 1.0 in Appendix A.

Lagoon discharges were completed in accordance with recommendations provided by INAC inspectors. Wastewater samples were taken during discharge events on July 28, August 16, and August 27, 2008. The first discharge event (July 28) met all discharge criteria, the August 16 discharge event did not meet the total suspended solids (TSS) criteria and the August 27, 2008 discharge did not meet the biological oxygen demand (BOD) or the TSS criteria. In total, 150,000 L of camp grey water and sewage were discharged in 2008. Spill reports were filed for the two discharge events that did not meet criteria and are in Appendix D. Wastewater sample results are in Table 4.0 in Appendix B.

The sewage discharge location is at 68°44'35" N 68°38'58" W as shown on Figure 1.0 in Appendix A and is located approximately 120 m east of the sewage lagoon.

3.3 Site Remediation Activities

3.3.1 Wildlife

There were two bear sightings in 2008; on July 27 and August 2. Neither incident resulted in human-bear interactions. Several foxes were sighted near Lobe B during the season.

A dedicated wildlife monitor was on-site throughout the majority of the construction season. Toward the end of the season, when camp occupancy was reduced and workers were staying closer to camp, a labourer was designated as the wildlife monitor.

3.3.2 Process Water

Process water was treated by running it through oil / water separator and then through a granular activated carbon filter. The water was then stored in one of seven 1.2 m^3 steel vessels referred to as "flower pots".

Of the 39 process water samples collected, 12 met the discharge criteria and were discharged. Approximately 300,000 L of process water were discharged in 2008. The discharge location is shown on Figure 1.0 in Appendix A. Twenty-seven samples failed on one or more of the following parameters: pH, oil and grease, zinc and/or phenols. Water that did not meet the discharge criteria was placed in cleaned barrels for off-site disposal. In total, 170 barrels of process water that did not meet the discharge criteria were shipped off-site. Sample results are located in Table 5.0 in Appendix B.

The location of the process water discharge is 68°344'18.071" N 68°39'49.296' N and is shown on Figure 1.0 in Appendix A.

3.3.3 Borrow Summary

Sources of granular fill materials were located during previous site investigations and were summarized in EBA Engineering Consultants' report *DEW Line Clean Up Project, FOX-C (Ekalugad Fjord), DEW Line Site, 2004 Geotechnical Investigation*, 2004.

The general description of available granular fill types for use during the clean-up activities at FOX-C is as follows:

- ***Type 1 Granular Fill***.... Large granular material used for erosion protection.
- ***Type 2 Granular Fill***.... Well graded sand and gravel for use in berm construction and for cover and regrading requirements.
- ***Type 3 Granular Fill***.... General fill for excavation backfill.
- ***Type 4 Granular Fill***.... Silty sand and gravel for use as freeze back landfill berms.
- ***Type 5 Granular Fill***.... Sand for geomembrane bedding.
- ***Type 6 Granular Fill***.... Sand and gravel for intermediate landfill debris cover.

Material for the 2008 construction season was obtained from Borrow Areas 1 and 7. Additional borrow areas were identified across the site and were denoted as 1A, 1B, 1C, and 1D. Locations of borrow sources are shown on Figure 1.0. Borrow Areas 1A, 1B, 1C, 4, 5, and 6 were not used during the 2008 construction season.

Sieve analyses completed in 2008 are in Appendix C.

Borrow areas were reshaped to promote positive drainage and shaped to blend into the surrounding terrain prior to demobilization in 2008.

3.3.3.1 Borrow Area 1

Borrow Area 1 was located below the Mid Station adjacent to the access road. Although initial estimates indicated that Borrow Area 1 would yield approximately 49,000 m^3 of Type 2 and Type 3 fill (combined), the material was generally finer than the Type 2 specification and high in moisture.

One sieve analysis that was completed during the 2008 season indicated that the material contained more sand than the Type 2 specification. The material was approved for use as the initial lift for regrades; however, Type 1 or Type 2 material meeting the specifications was required on top as final cover. The material was used as the first lift of regrades at the Upper Site and Mid Station. The material was not suitable for construction of the NHWL.

Approximately 288 m^3 of material was utilized from this borrow source during the 2008 construction season.

Reclamation of this Borrow Area was completed in early August 2008.

3.3.3.2 Borrow Area 1A, 1B, and 1C

Borrow area investigations identified three potential sources of Type 2 material at the Mid Station as shown on Figure 1.0. These borrow areas showed signs of previous disturbance that they had been used as borrow sources during the original construction of the FOX-C facilities. Over the course of the 2006 and 2007 construction seasons, the material was found to be too fine and contained wet areas. Sieve analyses conducted in 2006 showed the material to be only marginally suitable as Type 2.

Borrow areas 1A and 1B were not used during construction and reclamation of test pits dug in the areas was completed in early August 2008. A small amount of material was used from Borrow Area 1C (45 m^3) for roadway maintenance.

3.3.3.3 Borrow Area 1D

Borrow Area 1D is located at the Mid Station on the west slope of the adjacent peak as shown on Figure 1.0. Material from Borrow Area 1D was slightly outside the Type 2 specifications on the 0.425 mm sieve, but was deemed acceptable for use in the Upper Site and Mid Station regrades. Sieve results are located in Appendix C. Material from this borrow area was used for Upper Site and Mid Station regrades and backfills.

Approximately 2,780 m^3 of material was extracted from this area in 2008.

An extension to Borrow Area 1D was excavated adjacent to the road to the Upper Site. A nearby source of material was needed to regrade the Tier I area remaining at the base of the Lobe B excavation.

The borrow area was reshaped at the end of August 2008. An area at the upper portion of the borrow area was left untouched as wet conditions made it unsafe for equipment to work in the area.

3.3.3.4 Borrow Area 3

Borrow Area 3 was developed to provide a gravel source close to the Lower Site; however, the area contained predominantly sand and was thus used as Type 6 fill in 2006 and 2007. This borrow area was not utilized in 2008.

Reclamation work was completed on this borrow area at the end of August 2008.

3.3.3.5 Borrow Area 3A

Borrow Area 3A was located near Borrow Area 3 to supplement Type 2 material from Borrow Area 7. The source provided significant volumes of fill for the NHWL and road work for the lower site in 2007. In 2008, the material from this area was used as intermediate fill in the NHWL, as backfill material in the Beach POL and as the first 250 mm lift of the final cover of the NHWL.

Approximately 3,160 m^3 of material was excavated from this borrow area during the 2008 field season.

Borrow reclamation was completed at the beginning of September 2008.

3.3.3.6 Borrow Area 3B

Borrow Area 3B was developed near Borrow Area 3 and provided Type 1 material for maintenance of RC 1 and road repairs in 2007. Approximately 311 m^3 of material was used from this borrow area in 2008 and was most likely used for roadway maintenance.

Borrow reclamation was completed at the beginning of September 2008.

3.3.3.7 Borrow Area 4

Type 4 material came primarily from Borrow Area 4 and was used for the construction of the landfarm and the sewage lagoon in 2006. This borrow area was not used in subsequent years.

Borrow reclamation was completed early in August 2008.

3.3.3.8 Borrow Area 7

Borrow Area 7 provided the bulk of the Type 2 material used throughout the Lower Site, Upper Site, and along the road to the Mid Station. A sieve analysis completed on a sample from the borrow source, indicated that the material met specifications in 2008. A total of 9,161 m^3 of material was excavated from this borrow area in 2008. Sieve analysis results are in Appendix C. Material from this borrow area was used for roadway maintenance, NHWL berm and final cap construction, Beach POL excavation backfill and regrades at the Lower Site, Midstation and Upper Site.

Borrow Area 7 reclamation was completed at the beginning of September 2008.

3.3.3.9 Access Road Improvements

The majority of the road upgrade work was completed in 2006. The main road construction activities in 2008 consisted of re-installation of the 9 culverts removed the previous year and general road maintenance. Road construction and snow removal began on June 20, 2008 with substantial completion on June 28, 2008.

The road performed adequately throughout the season with exception of two river crossing breaches on July 22 and 23, 2008. Several days of rainfall and warm weather in 2008 lead to high water levels at both river crossings. Both crossings were breached and additional culverts were installed (two at RC1 and one at RC2). No other issues with the road were encountered in 2008.

Road decommissioning began on August 26, 2008 at the Mid Station. Ditches that had been excavated during the previous two seasons were filled. Final road decommissioning and scarification was completed by the time camp was closed on September 6, 2008.

3.4 Lower Site Remediation Activities

3.4.1 Landfarm Operation

Soil from the Beach POL (BPOL) excavation was added to the landfarm on June 29, July 11, 27 - 29, and 30, 2008. In total, 1013 m^3 of hydrocarbon contaminated soil was added to the landfarm. Seven tilling events were completed between July 5 and August 9 at which time sampling was conducted at the landfarm. After the first sampling event, two areas (samples 1083, 1084, 1085 and 1091, 1092, and 1093) in the landfarm were above the F2 criteria. The two areas were marked off and subsequent tilling events concentrated on these areas. One additional tilling event was conducted on August 17 and the landfarm was sampled. One sample (1195) was above the F2 criteria limit at 1100 ppm; however, the average results from the landfarm were below criteria limits and the landfarm was considered sufficiently remediated.

Regrading of the landfarm was completed on August 28 and 29, 2008. The berms were knocked down and the landfarm was regraded to match surrounding terrain.

Two landfarm wells were sampled on August 26, 2008 for petroleum hydrocarbons (PHC). Results were below detection limits. The remaining two wells were dry at the time of sampling. All four monitoring wells were decommissioned on August 28, 2008. Two landfarm discharge events took place during the 2008 season and approximately 5,000 to 10,000 L of water was discharged.

Sample results are in Tables 5.0 and 6.0 in Appendix B.

3.4.2 Non-Hazardous Waste Landfill

Berm construction began June 29, 2008 at the NHWL and was completed August 28, 2008. Debris placement in the NHWL began the week of July 6 - 12, 2008.

A survey of the east berm following construction indicated that it was not constructed according to design - the inside slope was too steep and the outside slope was too flat. The inside slope was field fit to a revised 1.5H:1V and the outside slope although flatter than the designed 3H:1V, met the design intent and was left as-is. The west berm was under built; fill was added to meet the 3H:1V design. The final 1.0 m thick cap was placed on the landfill in sections covering approximately one-third of the surface area. Type 2 fill was placed by a bulldozer and compacted in lifts using a smooth drum vibratory compactor.

The revised capacity of the landfill is 18,403 m^3 and the revised location is shown on Figure 5.0 in Appendix A. Proof roll testing logs are in Appendix C.

The contractor requested permission from PWGSC to place some of their camp infrastructure in the NHWL. Approval was given by PWGSC to place the additional material in the NHWL once it was determined there was sufficient capacity in the landfill. QC placed the roof of their garage, break trailer and camp recreation room in the NHWL.

Three new monitoring wells were installed around the NHWL in 2008. The locations of these wells are on Figure 5.0 in Appendix A. The monitoring well installation logs are in Appendix C. Soil samples were collected from the base of the five wells. No water samples were collected as the wells were dry during the 2008 field season. Soil sample results are in Table 7.0 in Appendix B.

3.4.3 Barrel Processing

There were 899 barrels processed during the 2008 season. Barrels with contents that appeared to be similar (fuel oil, transmission fluid, aqueous or a mixture of any of the previous) were consolidated and those that appeared to contain black oil were sampled according to the INAC Abandoned Military Site Remediation Protocol (AMSRP). Any barrels that had contents that were too viscous to incinerate on-site were tested only for flashpoint and PCBs for shipping purposes. Barrels that did not meet the barrel incineration criteria or could not otherwise be incinerated on-site were placed in cleaned barrels and packaged for off-site disposal. The 145 barrels of contents that could not be incinerated were shipped off-site. Barrels that contained only water or a combination of hydrocarbons and water were consolidated into a flowerpot and the water was decanted and processed through the oil / water separator and tested for discharge criteria and glycol. Process water sampling details are in Section 3.3.2.

After consolidation, empty barrels were washed, crushed and placed in the NHWL.

Barrel content incineration was conducted by a hazardous waste specialist with the assistance of several laborers using a dedicated fuel incinerator. Approximately 50,000 L of barrel contents were incinerated in 2008.

Barrel sampling results are in Table 8.0 in Appendix B.

Confirmatory sampling was conducted in the barrel processing area (BPA) after barrel processing was complete. All sample results were below detection limits. The area was reshaped to match existing terrain. Sample results are in Table 9.0 in Appendix B.

3.4.4 Lower Site Material Processing Area

Thirty-eight 20 m^3 stockpiles consisting of soil, debris, rocks and ice were placed in the Lower MPA. Five composite samples were taken from each stockpile and analyzed for PCBs and metals. The stockpiles were classified as Tier I, Tier II, or CEPA according to the most contaminated sample result from each pile. After final results were received, 30 stockpiles were classified as Tier II, 7 as Tier I, and 1 as CEPA.

The CEPA and Tier II soils were packaged for off-site shipment and Tier I soils were placed in the NHWL. Sample results are located in Table 14.0 in Appendix B.

The Lower Site material processing area (MPA) was located adjacent to the NHWL and was used for sorting and sampling debris piles excavated from Lobe B. The area was bermed on the west and south sides, the north was abutting the NHWL and the east side bordered the road and was the access point for vehicles. Half of the MPA had a geomembrane lining the base; however, the contractor ran out of liner on-site to line the entire area.

After stockpile classifying and packaging was completed, confirmatory samples were taken from the base of the area. One sample result (1205) exceeded Tier II copper criteria and one sample exceeded PCB Tier I criteria. The Tier II area was excavated and packaged in Quatrex bags for off-site shipment. Confirmatory samples were taken from the Tier II area and results were below criteria limits. The Tier I area was excavated to 0.3 m and the soil was placed in the NHWL. A total of 30 m^3 of Tier I soil was excavated. The excavations were backfilled and the area shaped to match the surrounding terrain.

Sample results are in Table 10.0 in Appendix B.

3.4.5 Debris Collection and Disposal

Debris collection was on going throughout the 2008 season with large debris in less accessible areas being slung out with the helicopter on August 24, 2008. Debris from RC1 to RC2 and a portion of the debris from RC1 to the Water Lake were removed using the helicopter. The remainder of the debris between RC1 and the Water Lake was removed with a front-end loader. Debris remaining at the Upper Site and Mid Station was hand-collected by the debris crew and was conducted over the length of the field season. All non-hazardous waste (consisting of crushed/empty barrels, domestic waste, wood and metal debris) was placed in the NHWL.

Wire bundles remaining from blasting cap disposal were burned on-site by the site health and safety officer. They were incinerated on the ground in a secure area and the remnants consisting of ashes, wires and other debris were placed in the NHWL. The explosive contractors on-site during the 2007 construction season (Notra Inc.) indicated that this would be a safe method of disposal.

The camp area debris removal was completed during final camp decommissioning.

3.4.6 Remediation of Contaminated Soil Areas

Beach POL (BP-PHC-01)

Contaminated soil excavation resumed on June 29, 2008. One area in the middle of the excavation was left in place to contain contact water for testing. The initial excavation limits were laid out incorrectly and additional excavation was conducted on July 11, 2008 along with the area left in place to hold the contact water. The contact water was drained into the main portion of the excavation, pending sample results. Coordinate locations for the Beach POL (BPOL) extension were based on hand held GPS coordinates, which did not correspond with the sample tag locations in the field. The excavation was extended to the sample tag locations.

Confirmatory sampling conducted on July 12, 2008 showed one impact remained along the west wall of the excavation. Excavation continued from July 27 -29, 2008 along the west wall and south from the west wall exceedance. Confirmatory sample results taken on July 27 and 29 were all below criteria. The contact water remaining in the BPOL excavation was sampled by the contractor on August 14; all results were below the discharge criteria and the water was discharged on August 23, 2008. Backfilling and reshaping of the area was completed on August 24, 2008.

Final confirmatory sample locations and excavation limits are on Figure 6.0 in Appendix A. Sample results are located in Table 11.0 in Appendix B.

Water Lake (WL-PHC-01 and WL-PHC-02)

The estimated amount of F2 hydrocarbon contaminated soil (greater than 900 mg/kg) remaining at the Water Lake after excavation and test pitting in 2007 was 1000 m^3. As estimated soil quantities were larger than the volume of space remaining in the landfarm, a decision was made to treat the soil in-situ.

The in-situ treatment area was tilled using a backhoe excavating the soil to depth and place back in the treatment area four times between July 12 and July 27, 2008. The first round of confirmatory sampling was conducted on July 27, 2008. The in-situ treatment area was tilled twice more and sampled once before the initial round of sample results from July 27 was received. Four samples from the first round of sampling were above the F2 criteria (1001, 1002, 1013, and 1020). The tilling area was reduced to four smaller area based on initial results and was tilled once more on August 14 before the second round of confirmatory samples results were received. The second round of confirmatory testing (conducted on August 10) indicated only one sample was slightly above the F2 criteria and one sample was at criteria. As the average results for the in-situ treatment area were below the F2 criteria the in-situ treatment area was considered remediated.

Samples were taken from the base of the in-situ treatment area (at approximately 1.0 - 1.2 m depth). No hydrocarbon exceedances were found below the treated soil.

Four small areas of F3/F4 PHC impacted soil and buried debris were regraded at the Water Lake with 0.5 m of Type 2 fill. The debris areas were less than 250 m^2 each with minimal exposed debris. These areas were regraded instead of excavated.

Sample results are in Table 12.0 in Appendix B.

River Debris Area

Surficial debris from an area located near the river was removed in 2006. Some buried debris remained. In 2008, confirmatory samples were taken from the area and results of analyses (metals and PCBs) were below the clean-up criteria. The remaining scattered surficial debris was removed by hand or with rakes. No further work was done at the River Debris Area.

Sample results are in Table 13.0 in Appendix B.

3.5 Upper Site and Mid Station Remediation Activities

3.5.1 Lobe B Excavation

In 2007, temperature conditions at the Mid Station remained cool throughout the construction season and Lobe B did not thaw to depth. After a portion of the surficial debris was removed during 2007, the remainder of the soil and debris was frozen and could not be excavated. Several options for the remediation of Lobe B were considered such as continuing with the strip and thaw technique, melting the ice and blasting. Blasting was considered the quickest option and the one most likely to allow excavation completion in one season.

A blasting crew was mobilized to site to loosen frozen buried debris at Lobe B. Blasting took place during the night shift from July 13, 2008 until July 22, 2008. Boreholes were drilled from the lower part of Lobe B to the upper part at a minimum of 1.2 m depth. Hauling of loosened material to the material processing area (MPA) located near the NHWL and to the Mid Station MPA was completed during the day shift. The material was placed in piles for sampling and debris sorting. A total of 2196 m^3 of debris and soil was removed from the dump. The amount of explosives used for Lobe B excavation was significantly smaller than the estimated required volume.

Confirmatory sampling was conducted after the excavation was completed. Two results were obtained that were above the PCB Tier I criteria and one result was above the Tier I lead criteria. These areas were regraded with 0.3 m of Type 2 material. The remainder of the landfill excavation was regraded with boulders to match the existing terrain.

Sample results are in Table 15.0 in Appendix B.

3.5.2 Upper Site Material Processing Area

Thirteen 20 m^3 stockpiles consisting of soil, debris, rocks, and ice were placed in the Upper MPA. Five composite samples were taken from each stockpile and analyzed for PCBs and metals. The stockpiles were classified as Tier I, Tier II, or CEPA according to the most contaminated sample result from each pile. After final results were received, 10 stockpiles were classified as Tier II and 3 as Tier I.

The Tier II soils were packaged for off-site shipment and Tier I soils were placed in the NHWL. One stockpile (Upper MPA Stockpile 50) had one sample that slightly exceeded the PCB Tier II criteria; however, the sample duplicate was below detection limits and the average of the two samples was below Tier II criteria. This stockpile was subsequently classified as Tier I and placed in the NHWL.

The Upper Site MPA was located adjacent to the Lobe B excavation on the old helicopter pad. A bermed area was constructed and lined with geomembrane. An area adjacent to the original area was also used as the amount of soil excavated from Lobe B was more than could be contained in the original area.

Confirmatory sampling was conducted in the area after all stockpiles had been classified and removed. One base sample (994) exceeded Tier I PCB criteria.

The impacted area was located in an area of low receptor sensitivity. Since risks associated with Tier I contamination are mainly respiratory, excavating impacts to 0.3 m depth and backfilling or covering with 0.3 m of clean fill are both considered adequate for mitigating exposure. The area was regraded with 0.3 m of fill using the material from the MPA berms. Sample results are located in Table 16.0 in Appendix B.

3.5.3 Debris Collection and Disposal

The main debris areas at the Upper Site and Mid Station were the Main Dump Area, Main Tower Debris Area and the Quonset Hut Debris Area. The Upper Site debris clean-up was mostly completed in 2007; however, additional areas of scattered debris remained and required removal in 2008. Debris removed in 2008 consisted mainly of domestic waste, wood and scrap metal.

The Main Dump Lobe A debris area was originally to be removed; however, in 2008 regrading the area was deemed a more suitable option. The debris areas was in a geologically stable area and sample results from impacted areas located down-gradient of the dump indicated it was not leaching. This area would be classified as a Class C landfill according to INAC AMSRP which allowed for regrading as a remedial option. This area was covered by extending a Tier I regrade to include Lobe A and was covered with a minimum of 0.5 m Type 2 fill. The regrade was completed July 13, 2008.

Mid Station debris removal was completed in 2008 and consisted of removal of domestic waste, wood materials and scrap metal. Barrels removed from six identified barrel dumps and scattered barrels were consolidated and removed in 2006 to 2007.

All non-hazardous debris was transported to the NHWL. Hazardous debris (battery debris, some asbestos and barrel contents that did not meet incineration criteria) was packaged for off-site disposal.

3.5.4 Remediation of Contaminated Soil Areas

Laboratory results are in Tables 17.0 through 20.0 in Appendix B. Final regrade limits are on Figures 2.0 through 4.0 and excavation limits are on Figures 6.0 through 8.0 in Appendix A.

Upper POL

The Upper Site F1/F2 contaminated soil near the POL was intended to be landfarmed in-situ; however, the soil was located on bedrock and the area was not conducive to landfarming. Therefore, since the area is more than 2,000 m from the nearest water source, there is no vegetation and fauna and no human receptors, the area was regraded instead.

Delineation sampling at the Upper Site F1/F2 contaminated soil area indicated that there was a small impacted soil area located down-gradient of the main area. This was partially excavated in 2007 and placed within the larger area located up-gradient. Regrading of the main (up-gradient) contaminated soil area and the partially excavated smaller area was completed in 2008.

The culvert located between the two contaminated soil areas was removed on July 11, 2008 in preparation for regrading. The Upper POL F1/F2 PHC regrade was started July 13, 2008 and completed on July 29, 2008. The area was regraded with a minimum 0.7 m Type 2 fill and covered an area of 615 m^2.

The contaminated areas are labelled UP-PHC-01 (up-gradient contaminated soil area) and UP-PHC-02 (down-gradient contaminated soil area) on Figure 2.0 in Appendix A.

West Laydown Debris (WL-PHC-01)

The West Laydown Debris Area regrade was completed in 2007.

East Laydown Debris (EL-PHC-01)

The East Laydown Debris Area regrade was completed in 2007.

Warehouse

The warehouse PHC area (WH-PHC-01) was regraded with the foundation regrade in 2007. The Tier II area (WH-MET-01) was excavated in 2007. The excavation area was backfilled and the south side of the garage foundation was regraded in 2008. The sides of the foundation were regraded with Type 2 fill.

Tower

The tower PHC area (T-PHC-01) was partially excavated in 2007, but the area was too wet to complete the excavation. There were 317 m^3 of PHC F3/F4 of contaminated soil excavated in 2007. It was decided to regrade the area instead because wet conditions persisted into the 2008 season. Regrading began on July 12, 2008 and was finished by July 28, 2008. The area was covered with 0.3 m Type 2 material instead of 0.5 m of Type 1 material as indicated on the drawings. Regrading with 0.3 m Type 2 is considered sufficient to prevent water infiltration equally to regrading with 0.5 m of Type 1 material.

Module Train

Hydrocarbon F3/F4 area MT-PHC-01 was regraded with Type 1 material in 2007 and Sewage Outfall Tier II (MT-PCB-01) area was excavated in 2007. The MT-PHC-02 F1/F2 area was regraded with 0.7 m Type 2 material in 2007 and the area was extended to include additional PHC impacted soil found based on olfactory observation in 2008. The additional area extended underneath where the Module Train had been located.

MT-PCB-01 (Sewage Outfall Tier I) area was regraded with the Main Dump Lobe A debris area located to the south of the impacted soil area. A 0.5 m layer of Type 2 material was used for regrading. MT-PCB-02 was excavated in 2007 and partially backfilled. Tier I soil (samples 510, 511, 512, and 513) remaining was excavated in 2008. Four confirmatory samples exceeded the Tier I PCB criteria and the MT-PHC-02 regrade was extended to cover remaining Tier I impacts. In 2008, 2.3 m^3 of Tier I soil was excavated. The area was regraded with a minimum 0.5 m Type 2 material.

Main Landfill

Additional delineation sampling was conducted at the Main Landfill main contaminated soil area at the beginning of July 2008. The original contaminated soil area was revised to five smaller contaminated soil areas (samples 543, 544, 545, 553, and 554) based on additional sample data. As the Tier I areas were only slightly elevated above the Tier I criteria, there was only a small amount of actual soil medium and there was a low receptor risk, regrading was considered an equivalent remedial strategy.

ML-PCB-01 remained unchanged. The revised Main Landfill contaminated soil areas are labelled ML-PCB-02 through 05.

The Main Landfill Tier II area (ML-MET-01) was excavated in 2007 and backfilled along with the ML-PCB-02 regrade. The Main Landfill Tier I contaminated soil areas were regraded with a minimum 0.5 m of Type 2 material.

Garage

Garage Tier II area G-MET-01 was excavated to a depth of 0.2 m on July 2, 2008. Confirmatory sampling was conducted. Sample results indicated that metal concentrations were below criteria; however, Tier II PCB impacts were detected in the excavation. The excavation was extended to the north and south, and at depth to address the exceedances found at samples 502 and 507.

The second round of confirmatory sampling indicated one Tier II exceedance at the base of the excavation at duplicate sample 580 and 581 in the southern extension. The third round of excavation extended the depth an additional 0.3 m. The confirmatory sample result was below detection limits. Remaining Tier I impacts along the northeast corner of the north extension were regraded with 0.7 m Type 2 material. At total of 67 m^3 Tier II soil was excavated at the garage in 2008.

G-PHC-01 area F3/F4 soil and G-MET-02 Tier I lead impacted area was excavated and placed within the Garage Dump regrade limits. The excavations were subsequently backfilled. A total of 15 m^3 was excavated from the Garage area and placed in the Garage Dump regrade.

Garage Dump regrading began on July 7, 2008. A small area of soil stained located on a bedrock outcrop was hand excavated and placed with the main portion of the regrade allowing the western extent of the regrade to be brought in. The regrade was completed on August 9, 2008 with 0.7 m of Type 2 material and additional Type 1 material placed on the side slopes as erosion protection.

G-MET-03 was excavated in 2007 and was backfilled with the Garage Dump regrade in 2008.

Garage Debris (GD-PHC-01)

This regrade was completed in 2007.

Mid Station Barrel Dump (MBD-PHC-01)

This regrade was completed in 2007.

Quonset Hut

The Tier II soil area (QH-MET-01) was extended to include an area of debris along the bedrock outcrop to capture probable Tier II contamination. Excavation was conducted on July 28, 2008 and confirmatory sampling was subsequently completed. Analyses indicated that sample 970 (taken along the south wall of the excavation) was above Tier II criteria limits, but duplicate sample 971 was below. The average of the two samples was below Tier II limits. An additional three Quatrex bags of soil was excavated from the south wall of the original excavation at the location of samples 970/71. No confirmatory sampling was conducted after the second round of excavation as the additional soil removed would have captured remaining impacted soil. A total of 36 m^3 soil was excavated from the Quonset Hut. The area was backfilled and regraded to cover remaining Tier I impacts.

Hydrocarbon area QH-PHC-01 limits were extended to include additional staining to the east of the area and reduced in an area with no staining. QH-PHC-01 and QH-PHC-02 were regraded with 0.5 m of Type 2 material.

Mid Station Pad (MP-PHC-01)

The southern portion of MP-PHC-01 was regraded during construction activities in 2006. The northern portion was resized in 2008 to cover only visibly stained areas of F3/F4 hydrocarbons and a small area of buried debris. The total regrade was 686 m^2 and was covered with 0.5 m of Type 2 material.

4.0 Disposal of Hazardous Waste

Hazardous waste containerized at FOX-C was removed during September 2008. PWGSC contracted QC to ship and facilitate disposal / destruction of this waste at suitable disposal facilities through a Change Order.

The Hazardous Waste was shipped off-site on September 15, 2008 and arrived in Sainte-Catherine on October 5. The materials were then transferred to various disposal facilities as indicated in the Table 4.0 below.

A total of 86,160 kg of hazardous materials, including PCB-Amended Painted (PAP), CEPA soils and leachable lead painted waste from the FOX-C site was containerized and disposed of. Additionally, 1,201,200 kg of Tier II contaminated soil, 4 Quatrex bags of lead batteries and 315 drums of barrel contents was shipped off-site for disposal.

The contractor's hazardous waste disposal report with a detailed inventory is located in Appendix D.

Table 2.0: FOX-C Final Hazardous Waste Disposal Locations

Type of Waste	Disposed Quantity	Disposal Facility
Tier II Contaminated Soil	1,201,200 kg	Horizon Environment, Grandes-Piles, QC
CEPA Contaminated Soil	30,860 kg	Recupere Sol, St. Ambrose, QC
PAP Demolition Debris	47, 685 kg	Material Resource Recovery, Cornwall, ON
PAP Asbestos	7,615 kg	Material Resource Recovery, Cornwall, ON
Hazardous Barrel Contents	125 drums	Ecolocycle, St. Hyacinthe, QC
Water exceeding the discharge criteria	170 drums	Ecolocycle, St. Hyacinthe, QC
Lube oil/oil and grease	20 bags/drums	Ecolocycle, St. Hyacinthe, QC
CFC Cylinder	8 kg	Fielding Chemical Technologies Inc., Mississauga, ON
Nitrogen Cylinder	Almost Empty	Linde Canada Limited, St. Hubert, QC

5.0 Quality Assurance/Quality Control

Quality Control measures used in the collection, preservation, shipment, and analysis of samples included the following:

- Sampling techniques were performed in accordance with standard scientific protocols;
- Rigorous field notes were taken during the investigation;
- Volatile samples were kept cool prior to shipment to the laboratory;
- Samples were assigned unique sample control numbers and transported under chain of custody procedures; and
- The analytical laboratory has proficiency certification issued by the Canadian Association for Environmental Analytical Laboratories (CAEAL) for the specific analyses conducted.

Quality Assurance measures established for the investigation included collection of duplicate field samples at the rate of approximately 10%. A blind duplicate sample consisted of a second sample collected from the same location as another sample and submitted to the analytical laboratory under a separate label such that the analytical laboratory has no prior knowledge that it is a duplicate. Duplicate samples from numerous locations were submitted to the laboratory for analysis.

The relative percent difference (RPD) between duplicate results was used to assess overall sampling precision. The RPD is a measure of the variability between two duplicate analyses and is calculated by the following equation:

$$RPD = 100 \times ((2 \times (x_1 - x_2))/(x_1 + x_2))$$

Where x_1 is the primary result and x_2 is the blind duplicate result.

Tables 21.0 to 23.0 in Appendix B compare sample results between the original samples and their duplicates. Laboratory acceptable RPD values vary based on the analytical parameters, the sample matrix and the concentrations of analytes in the samples. For metals in soils acceptable RPD values are 35% and for organics in soils (PHCs and PCBs), the acceptable RPD values are 50%. Only when concentrations are at least 10 times the method detection limit are RPD calculations considered valid.

Maxxam Analytics Ltd. in Ottawa was used for barrel content analyses and hydrocarbons in soil analyses, ASU in Iqaluit analysed for PCBs and some hydrocarbons in soil and ASU in Kingston analyzed metals in soil and all water analyses. Laboratory Quality Assurance and Quality Control (QA/QC) results are included with the laboratory results and are in Appendix G on the CD.

5.1 Field Duplicate Samples

During the 2008 field program, 52 field duplicates for soil samples were collected and analyzed. RPDs were calculated for all parameters analyzed in each sample. The results of these calculations are summarized in Table 21.0 in Appendix B.

The majority of parameters were below 35% for metals and 50% for PCBs and PHCs. Many of the results that were outside acceptable limits were from the Lobe B excavation stockpiles where there were large volumes of debris. The variance is attributed to small pieces of debris admixed within the soil samples. Additionally, sample results that were less than 10 times the method detection limit (MDL) are not strictly valid and have been identified in the summary table. One RPD result taken from the BD-6 Tier II excavation exceeded the variance criteria for lead. The excavation was within a dump area and was located in significant amounts of debris. It is likely this sample also had debris admixed in the soil contributing to the high RPD.

One field duplicate was collected for the barrel samples (Table 22.0). The PCB result was at the criteria limit of 50%; however, the two results were less than 10 times the MDL and the result is not necessarily valid.

Two water field duplicates were collected (Table 23.0). Two metals results were outside the recommended limit of 25% (zinc and nickel). Both samples were less than 10 times the MDL.

5.2 Laboratory QA/QC

Several laboratory duplicates were outside the acceptable RPD limits. The samples were either from landfill stockpile samples, where small pieces of debris could potentially have been mixed in with samples, or one or more of the results were less than 10 times the method detection limits, in which case the results may not be valid. As results outside the RPD limits were not considered valid, the laboratory results are considered reliable.

Four sets of oil samples had a possible high bias in the results of between 4 - 7% for PCBs. The results these biases apply to were either below detection limits, higher than the criterion or the result plus the bias was still below the criterion. All results are still considered valid.

6.0 Regulatory Compliance

AECOM monitored contractor compliance with the Water License, Land Use Permit, and the contractor's own Health and Safety Plan by tracking site activities. Water use logs, helicopter flights, wildlife sightings, accident reports and construction activities were recorded and reported to PWGSC in weekly reports. Health and safety committee meetings were attended by AECOM. Copies of the above mentioned reports for the 2008 season are in Appendix G on the CD.

AECOM completed sampling of water associated with barrel treatment processes and provided analytical data and recommendations to the contractor as to whether water could be discharged on-site. For sewage water discharge, AECOM collected water samples at the time of discharge and alerted the contractor when analytical results exceeded the criteria outlined in the Water License necessitating the submission of a spill report by the contractor. In such instances, AECOM provided information required for the spill report to the contractor, and subsequently reviewed the spill report for accuracy. For cases of contact water in excavation areas, the landfarm or other areas potentially needing water discharge, AECOM provided assistance and recommendations to the contractor as required so that samples were collected and tested according to wastewater discharge criteria. The analytical results were then reviewed, and recommendations for discharge were given if the water met criteria. Results of drinking water potability analyses were reviewed with reference to drinking water criteria for the camp water supply. Where exceedances were noted, AECOM alerted the contractor that alternative drinking water sources must be provided.

INAC was granted land and water use permits and an Exemption Certificate for camp operations and clean-up activities at FOX-C. Land Use Permit Application #N2005X0009 was issued by Indian and Northern Affairs Canada Land Administration; NWB License No. 1BR-EKA0607 was issued by the Nunavut Water Board; Exemption Certificate Number Q05XX17 was issued by the Qikiqtanni Inuit Association. Conditions outlined in these permits governed the method of operation for the site remediation.

Copies of the permits are in Appendix E.

A copy of the Quarry Permit Report is located in Appendix E.

7.0 References

Environmental Study of Abandoned DEW Line Sites: II. Six Intermediate Sites in the Eastern Arctic, Environmental Services Group, March 1994.

Engineering Design (95% submission) and Cost Estimates for the Clean-Up of Ekalugad Fiord (FOX-C), Intermediate DEW Line Site, Sinanni Inc. and Qikiqtaaluk Corporation, Revision 1, October 2001.

FOX-C DEW Line Site, Phase III Environmental Site Assessment and Waste Audit, Earth Tech 2004.

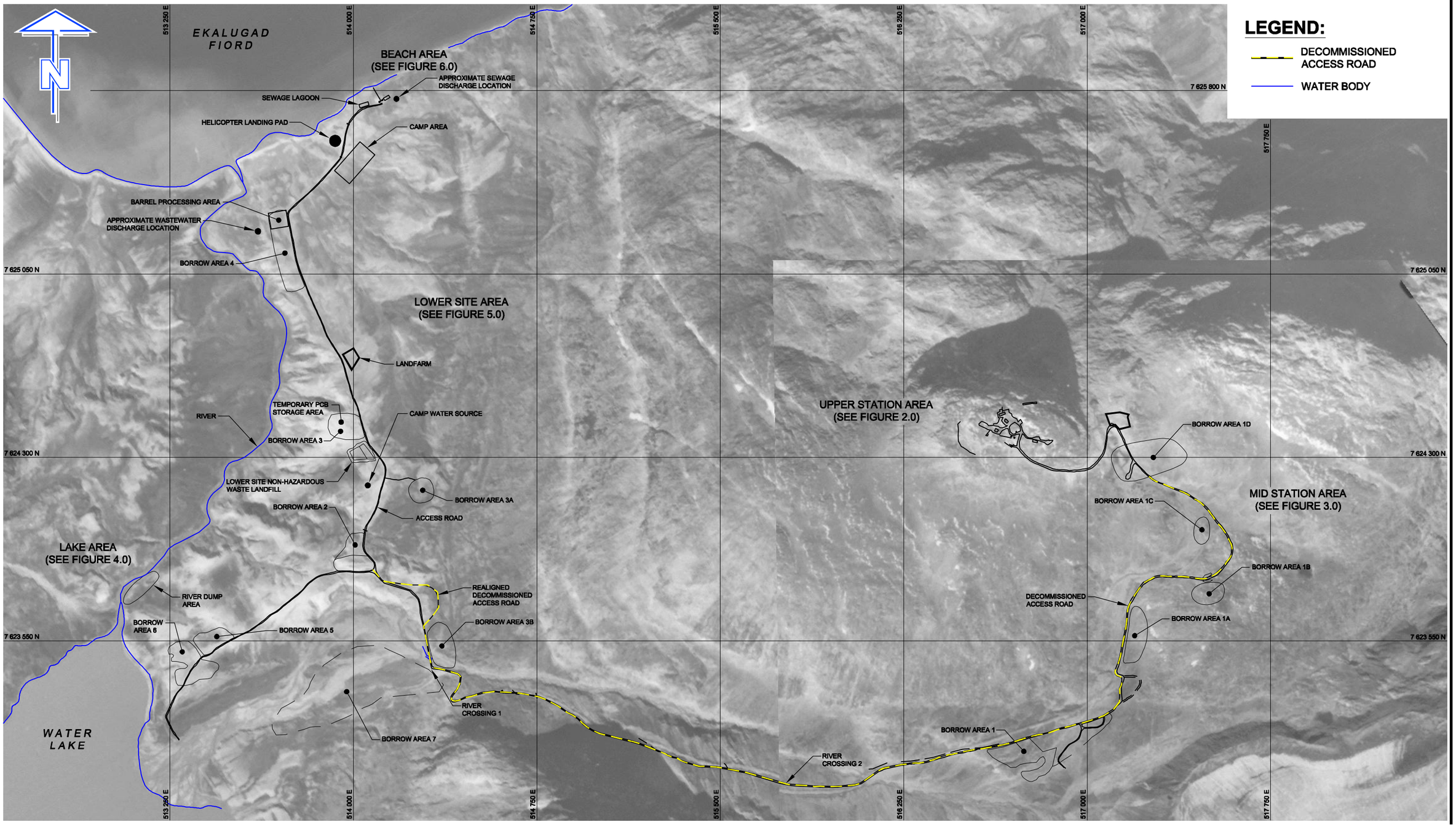
Culvert Assessment, FOX-C DEW Line Site, Ekalugad Fjord, NU, EBA Engineering Consultants Ltd., April 26, 2006.

DEW Line Clean Up Project, FOX-C (Ekalugad Fjord) DEW Line Site, 2004 Geotechnical Investigation, EBA Engineering Consultants Ltd., November 2004.

Abandoned Military Site Remediation Protocol, Indian and Northern Affairs Canada (INAC), 2005.

Remediation Work Plan, FOX-C Ekalugad Fiord Intermediate DEW Line Site, UMA Engineering Ltd., January 2005.

Appendix A
Figures



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Public Works and Government Services Canada
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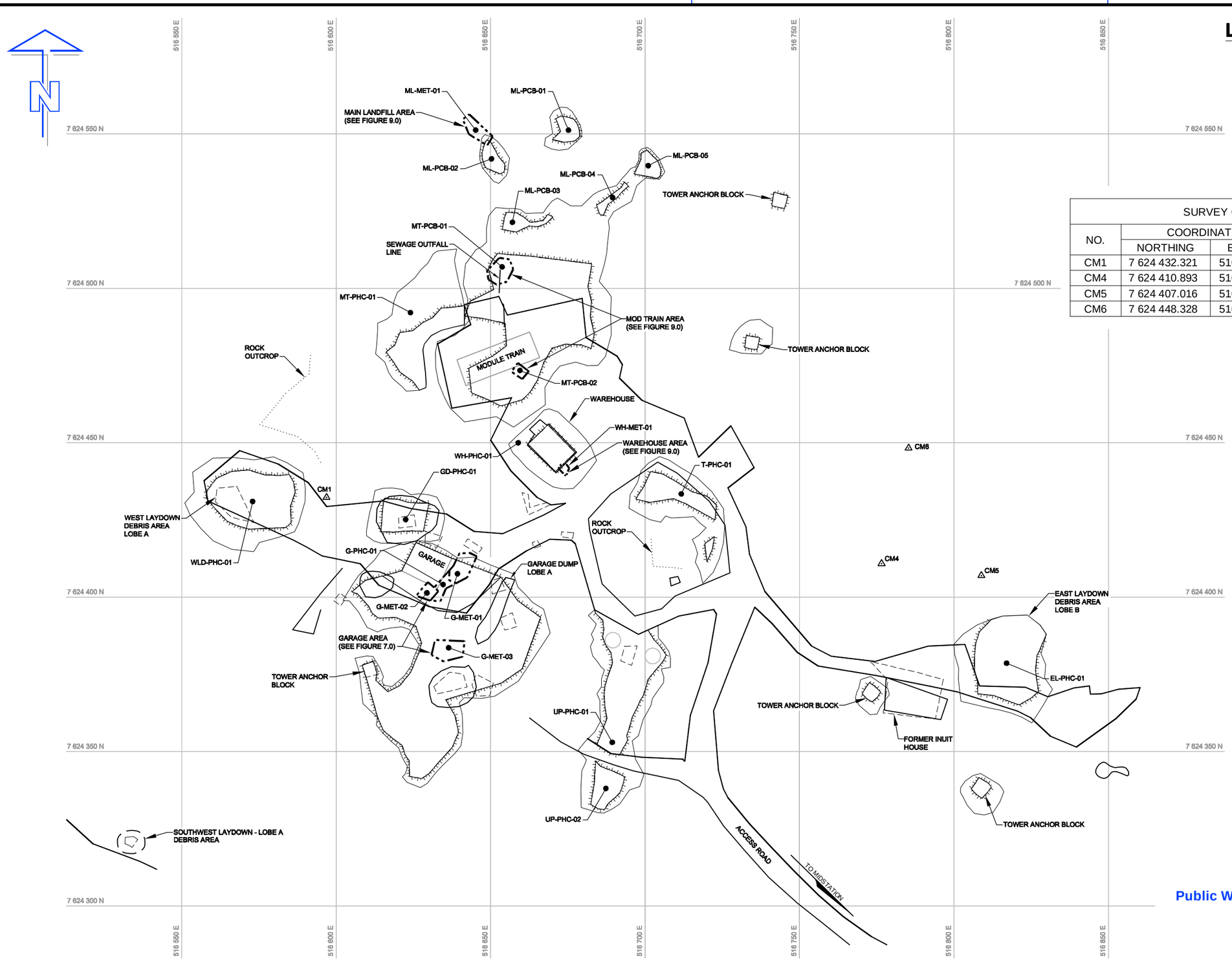
FOX-C 2008 Services

Site Overview
2008 Field Season
Figure 1.0

AECOM



LEGEND:

- CM1 — SURVEY CONTROL MONUMENTS
- REGRADE LINE
- FINAL EXCAVATION LIMITS

SURVEY CONTROL MONUMENTS				
NO.	COORDINATES		ELEV.	DESCRIPTION
	NORTHING	EASTING		
CM1	7 624 432.321	516 596.827	768.094	BASELINE STA. 0+00
CM4	7 624 410.893	516 776.496	771.323	BASELINE STA. 5+93.9
CM5	7 624 407.016	516 808.826	770.798	BASELINE STA. 7+00.9
CM6	7 624 448.328	516 785.256	778.874	DND CONTROL 72A58

0 12.5 25 m SCALE 1:1250

AECOM

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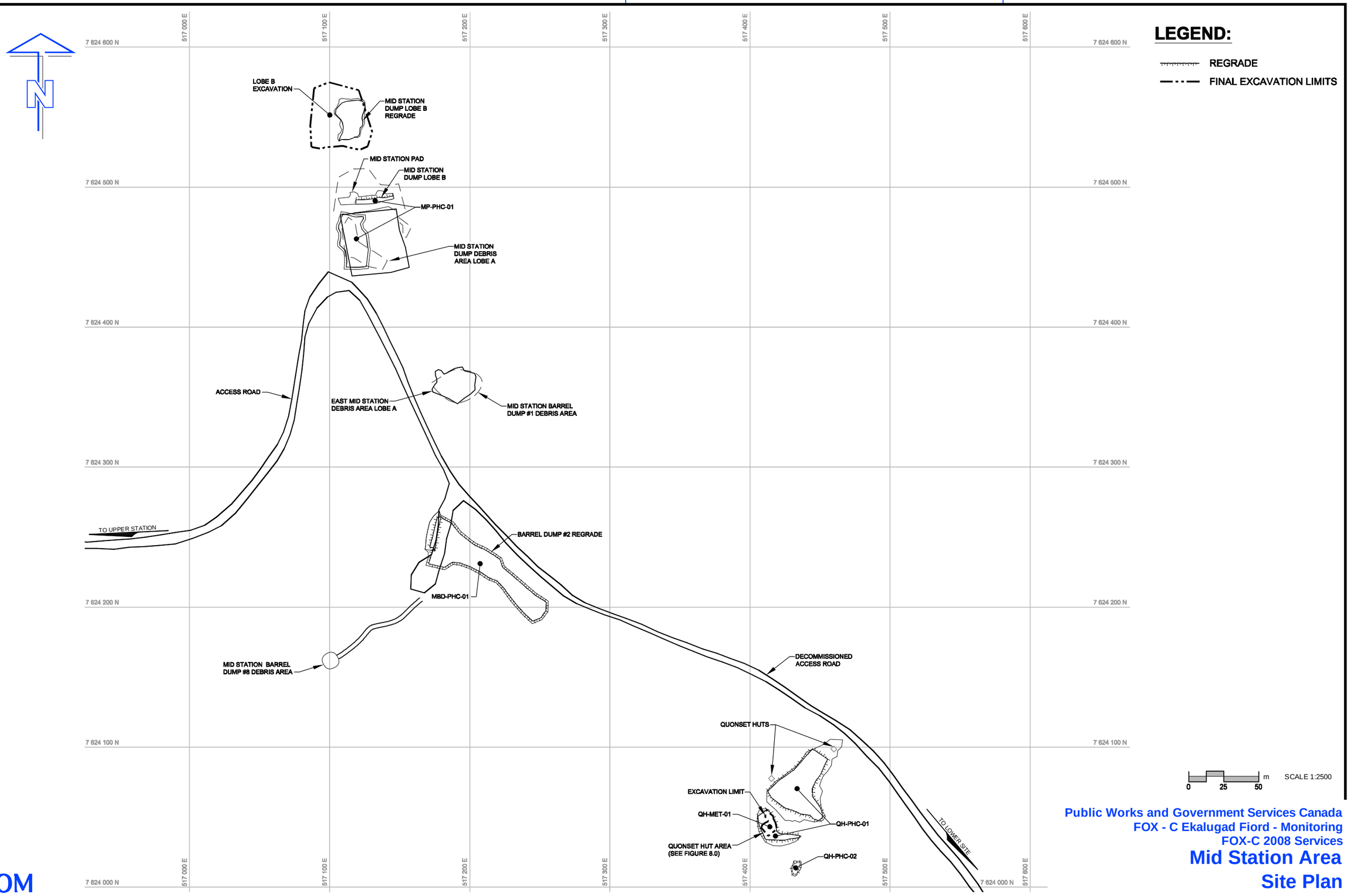
FOX-C 2008 Services

Upper Station Area
Site Plan
Figure 2.0



AECOM

Public Works and Government Services Canada
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FOX-C 2008 Services

Mid Station Area
Site Plan
Figure 3.0

513 000 E | 513 050 E | 513 100 E | 513 150 E | 513 200 E | 513 250 E | 513 300 E | 513 350 E | 513 400 E

7 623 700 N | 7 623 650 N | 7 623 600 N | 7 623 550 N | 7 623 500 N | 7 623 450 N | 7 623 400 N

LD-PHC-01
APPROXIMATE TOP OF BANK
LD-PHC-02
LD-PHC-03
LD-PHC-04
WATER LAKE
WATER LAKE AREA (FIGURE 8.0)
WL-PHC-01
IN-SITU TREATMENT AREA
WL-PHC-02
ACCESS ROAD

LEGEND:

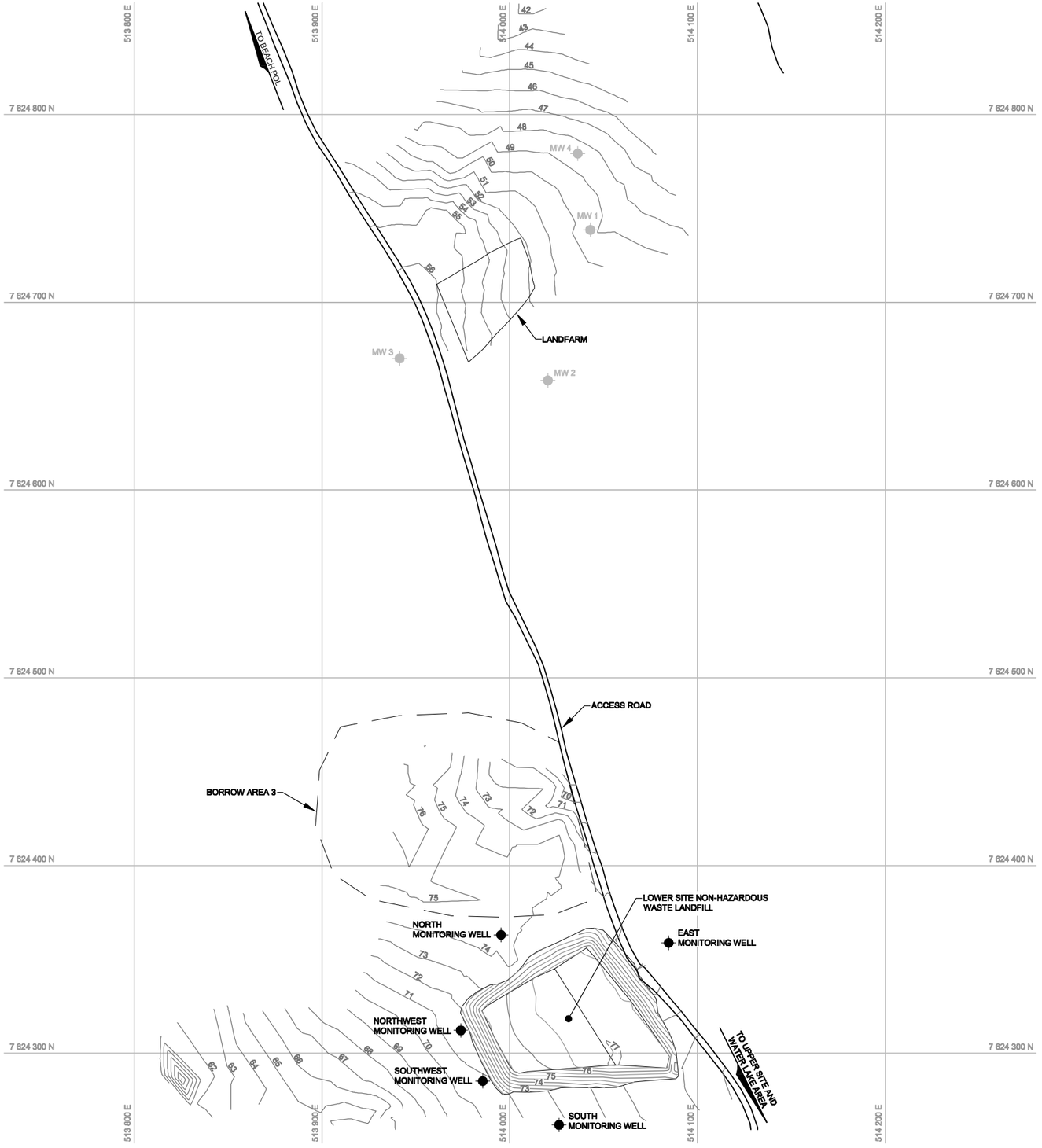
- REGRADE
- FINAL EXCAVATION LIMITS
- IN-SITU LANDFARM AREA
- WATER BODY

0 10 20 m SCALE 1:1000

Public Works and Government Services Canada
FOX - C Ekalugad Fiord - Monitoring
FOX-C 2008 Services

Lake Area Site Plan Figure 4.0

AECOM



GENERAL NOTES:

1. GROUND CONTOURS ARE SHOWN AT AN INTERVAL OF 1m.
2. LANDFILL CONTOURS ARE SHOWN AT AN INTERVAL OF 0.5m.

LEGEND:

- 71 — GROUND CONTOURS
- 71 — LANDFILL CONTOURS
- MONITORING WELL LOCATION
- MW 2 — FORMER MONITORING WELL LOCATION

0 25 50 m SCALE 1:2500

AECOM

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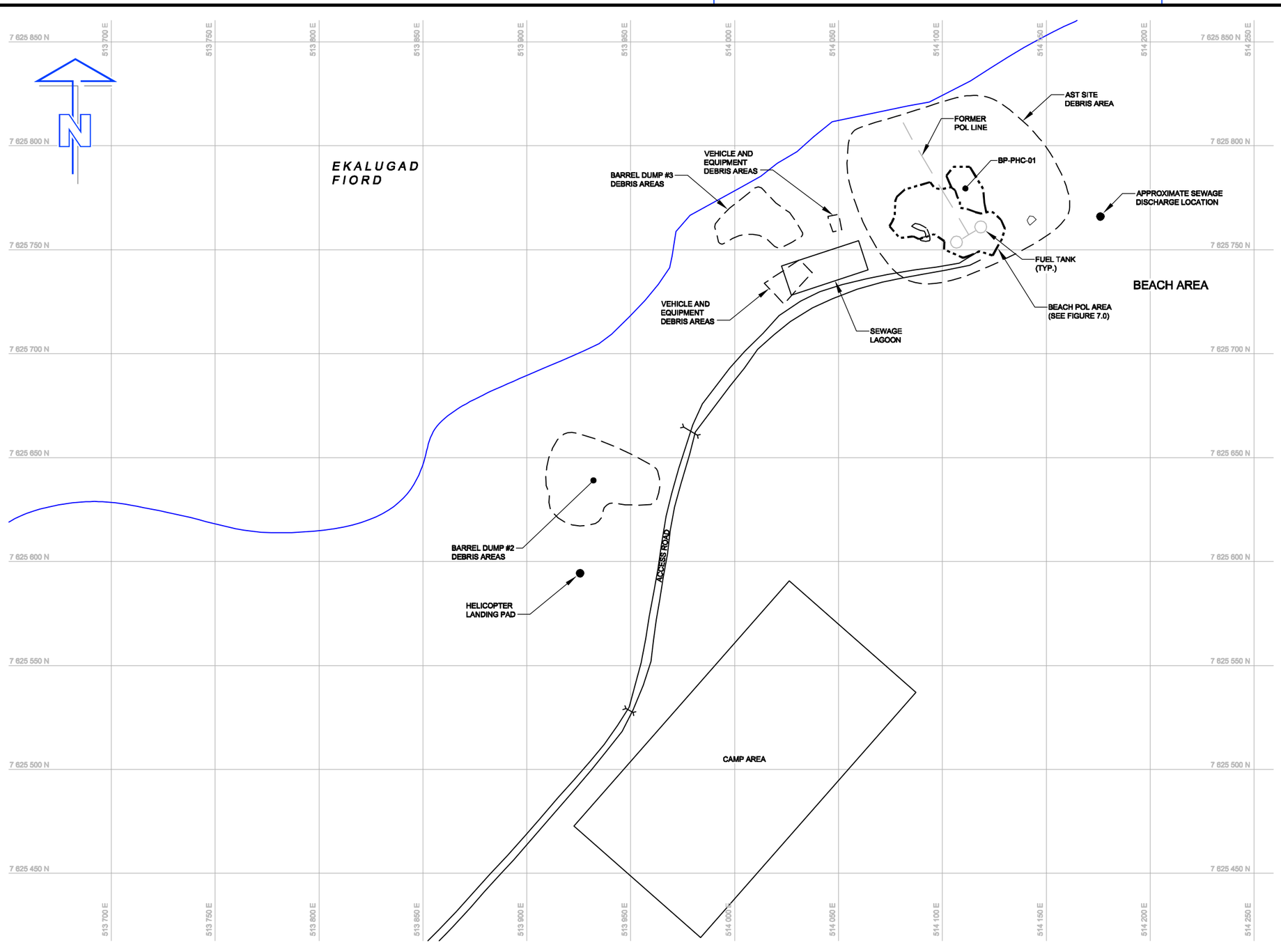
Lower Site Landfill Area
Site Plan
Figure 5.0



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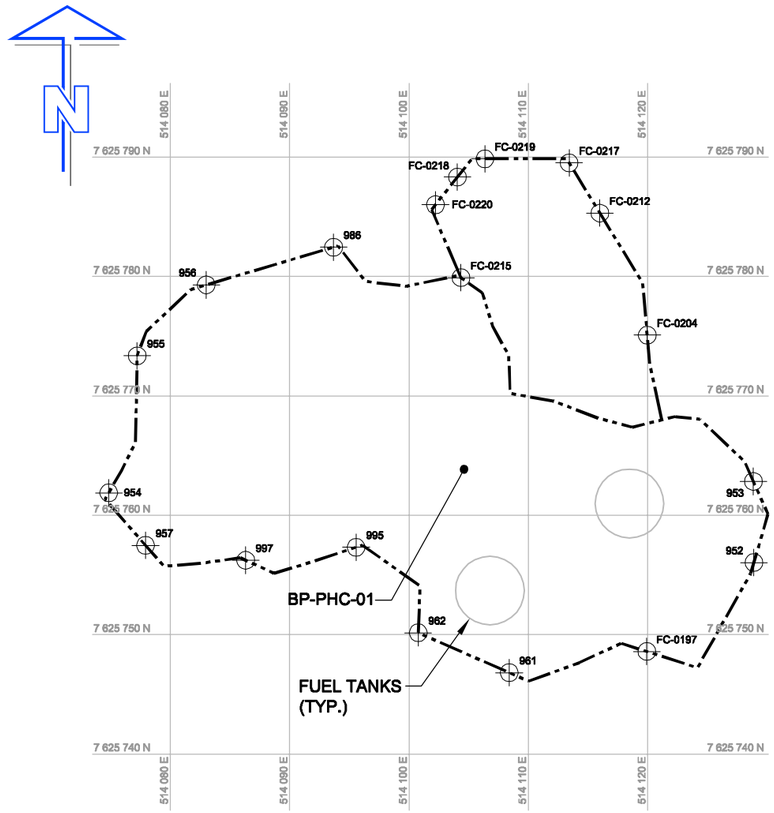
AECOM

Beach Area
Figure 6.0

LEGEND:

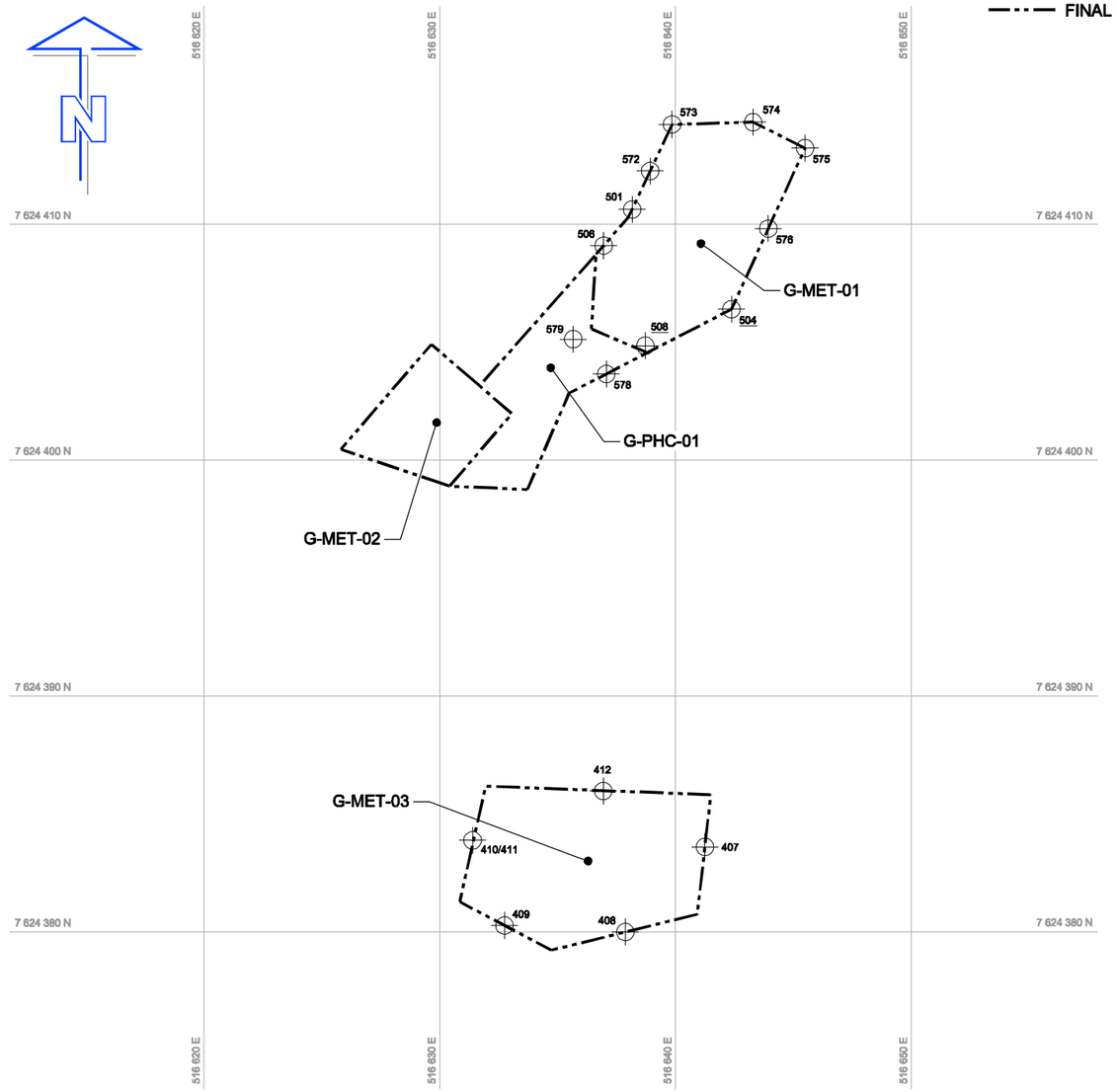
- 954 APPROXIMATE SAMPLE LOCATION
- 504 APPROXIMATE SAMPLE LOCATION WITH A TIER I EXCEEDANCE
- FINAL EXCAVATION LIMITS



BEACH POL AREA

0 5 10 m SCALE 1:500

SEE FIGURE 6.0



GARAGE AREA

0 2.5 5 m SCALE 1:250

SEE FIGURE 2.0

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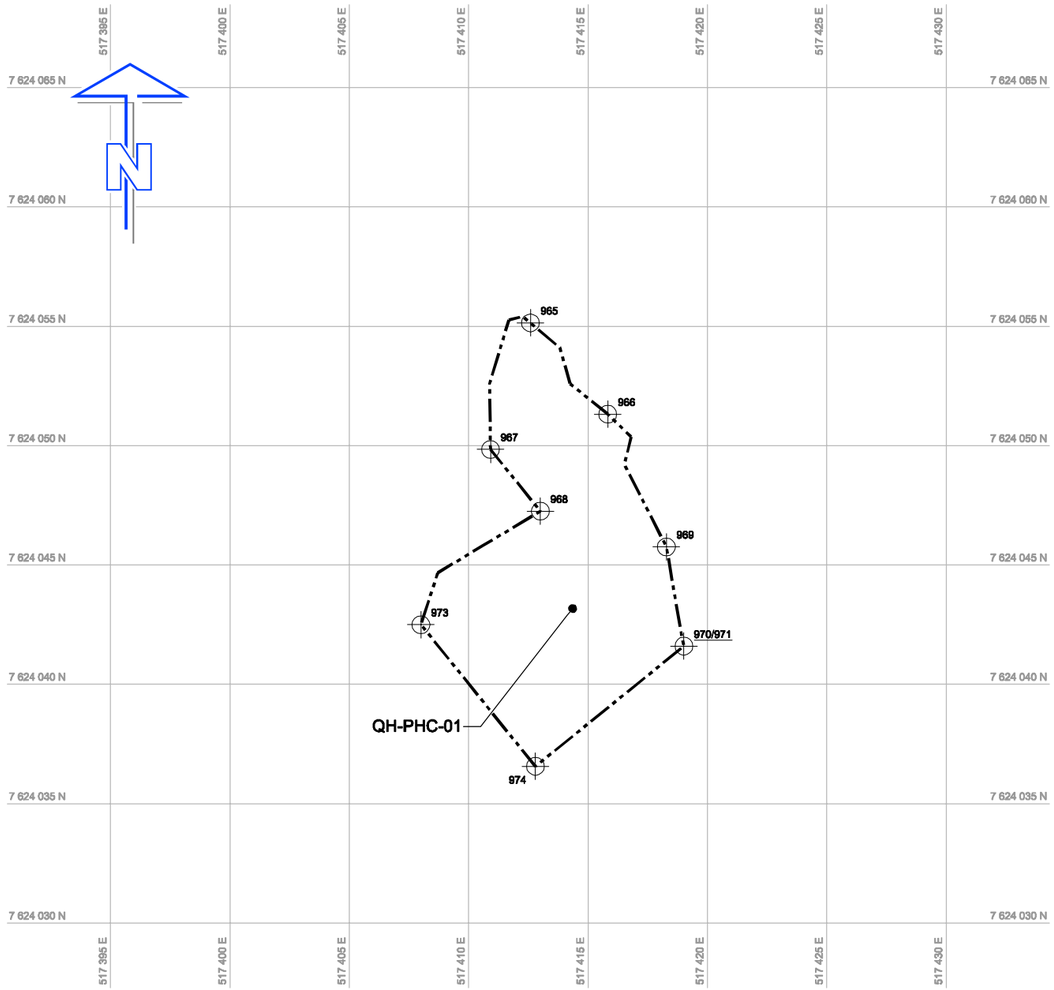
FOX-C 2008 Services

AECOM

Contaminated Soil Areas
Figure 7.0

LEGEND:

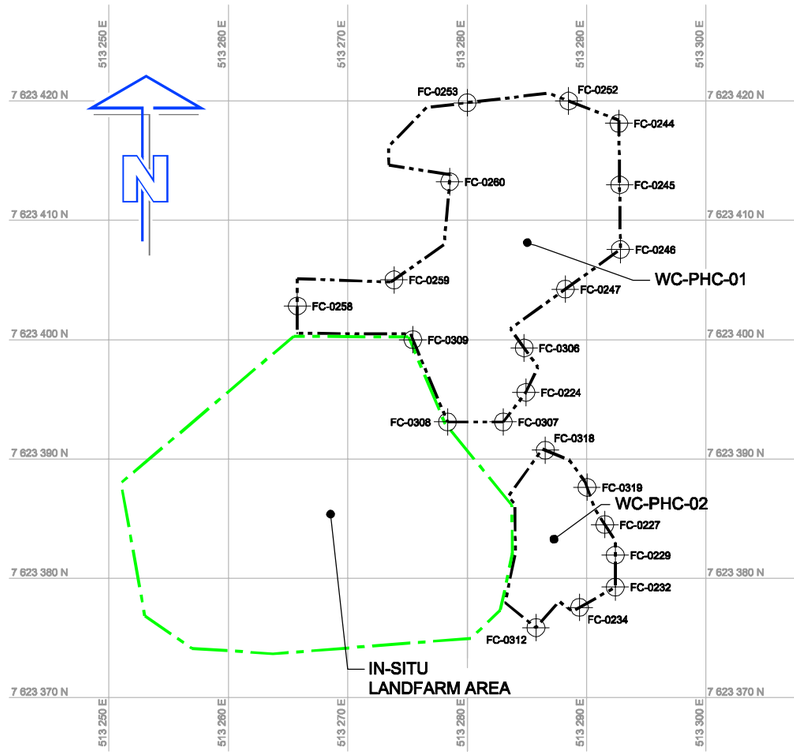
- 973 — APPROXIMATE SAMPLE LOCATION
- 970/971 — APPROXIMATE SAMPLE LOCATION WITH A TIER I EXCEEDANCE
- FINAL EXCAVATION LIMITS
- IN-SITU LANDFARM AREA



QUONSET HUT AREA

0 2.5 5 m SCALE 1:250

SEE FIGURE 3.0



WATER LAKE AREA

0 5 10 m SCALE 1:500

SEE FIGURE 4.0

Public Works and Government Services Canada
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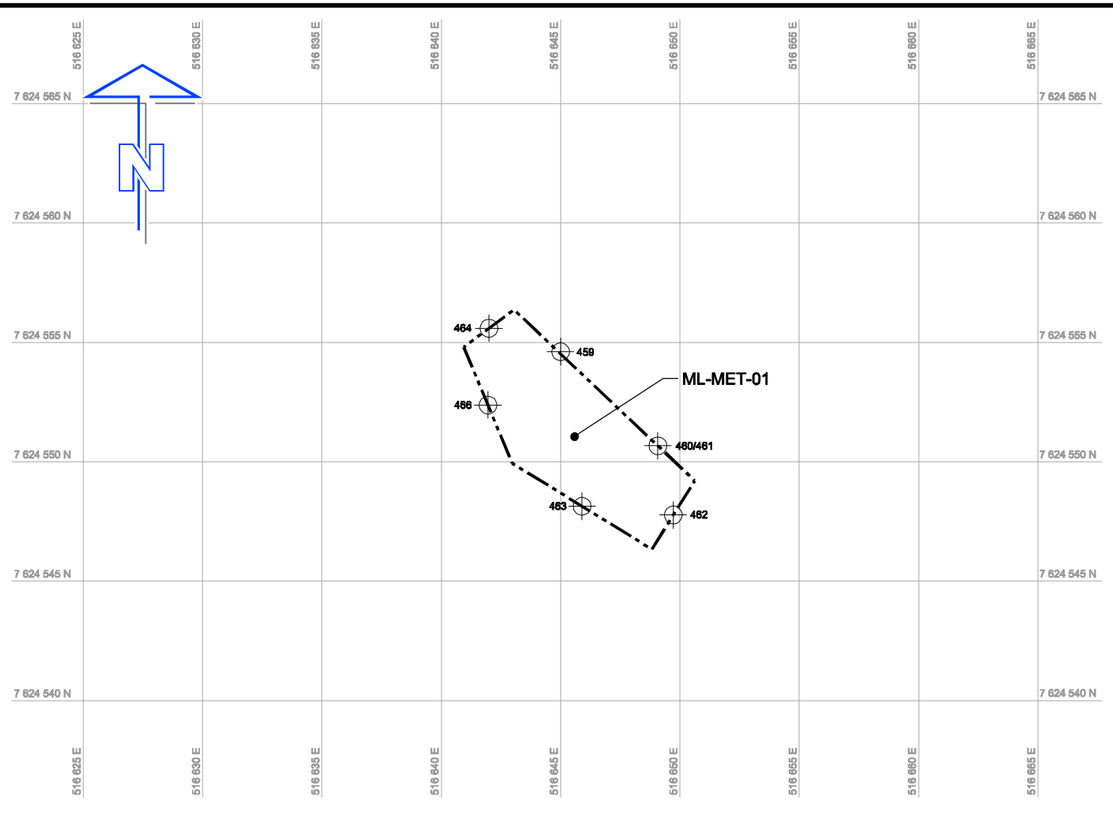
FOX-C 2008 Services

AECOM

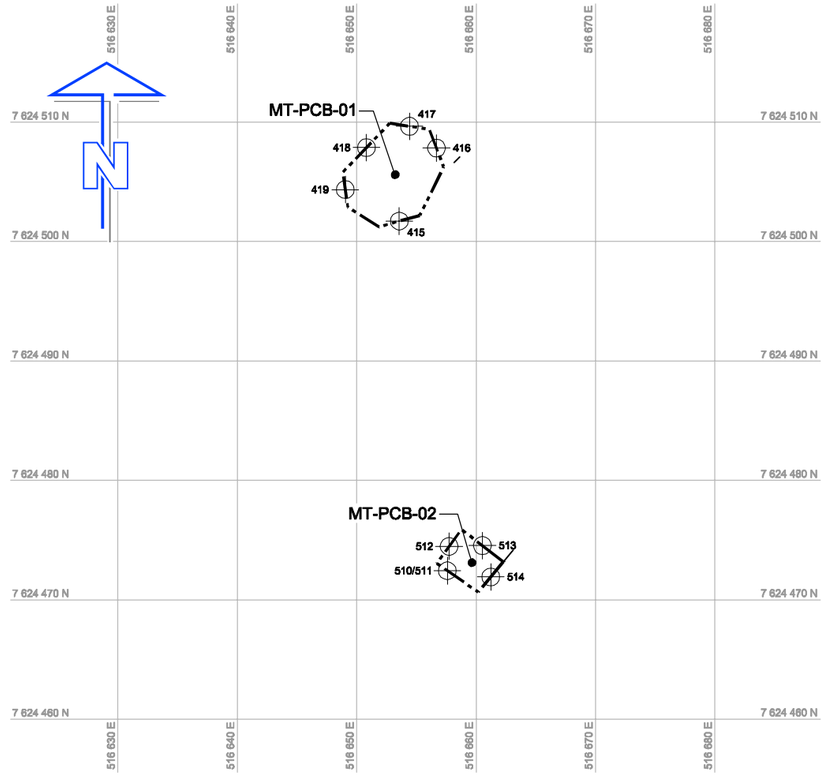
Contaminated Soil Areas
Figure 8.0



MAIN LANDFILL AREA

0 2.5 5 m SCALE 1:250

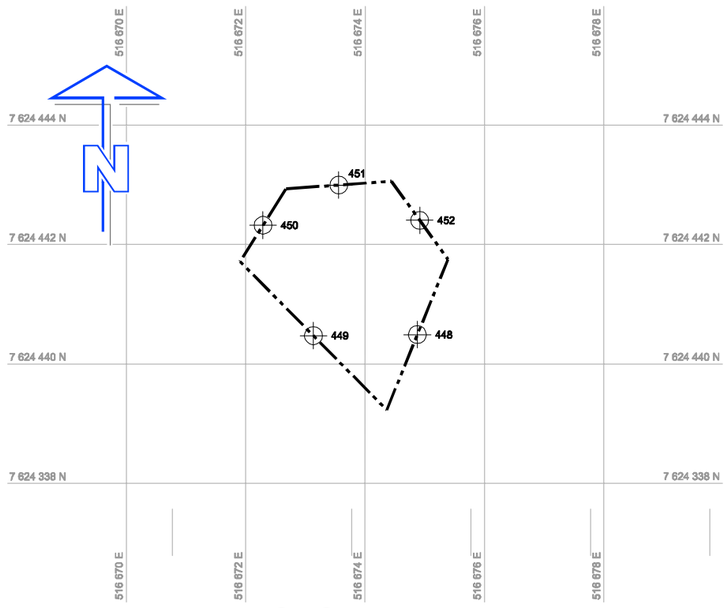
SEE FIGURE 2.0



MOD TRAIN AREA

0 5 10 m SCALE 1:500

SEE FIGURE 2.0



WAREHOUSE AREA

0 1 2 m SCALE 1:100

SEE FIGURE 2.0

LEGEND:

514 APPROXIMATE SAMPLE LOCATION

FINAL EXCAVATION LIMITS

ISS/REV: C
UMA FILE NAME: 2977-328-04_00-B-F009_RC.dwg Saved By: chaob

AECOM

Public Works and Government Services Canada
FOX - C Ekalugad Fiord - Monitoring
FOX-C 2008 Services

Contaminated Soil Areas
Figure 9.0

Appendix B
Tables

Table 1.0: Temporary PCB Storage Area

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	PCB Total
Soil and Paint CEPA Criteria							*50*
Soil Tier II							**5**
Soil Tier I							1
Units							**mg/kg**
1146	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1147	Old PCB Storage Area	confirmatory		soil	0	Aug-09	2.7
1148	Old PCB Storage Area	confirmatory		soil	0	Aug-09	1.3
1149	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1150	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1151	Old PCB Storage Area	confirmatory	1152	soil	0	Aug-09	1.7
1152	Old PCB Storage Area	confirmatory	1151	soil	0	Aug-09	1.7
1153	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1154	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1155	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1156	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1157	Old PCB Storage Area	confirmatory		soil	0	Aug-09	4.5
1158	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1159	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1160	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1161	Old PCB Storage Area	confirmatory	1162	soil	0	Aug-09	<1.0
1162	Old PCB Storage Area	confirmatory	1161	soil	0	Aug-09	<1.0
1163	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1164	Old PCB Storage Area	confirmatory		soil	0	Aug-09	1.3
1165	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1166	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0
1167	Old PCB Storage Area	confirmatory		soil	0	Aug-09	<1.0

* indicates a laboratory duplicate result

Table 2.0: Drinking Water Results

Sample #	Sampling Program	Sample Matrix	Date Collected	pH	Nitrate + Nitrite	Hg	Cd	Cr	Cu	Zn	Fe	Mg	Pb	TSS	Fecal Coliforms
Water Discharge				**<6, >8.5**	**-**	**0.001**	**0.005**	**0.05**	**1**	**5**	**0.3**	**-**	**0.01**	**-**	**0**
Units					**mg/L**		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
EK-080630-DW	drinking water	water	Jun-30	6.1	0.04	<0.0001	<0.0002	<0.0005	0.057	0.02	0.097	0.45	0.002	<2	<1
EK-080630-DW	drinking water	water	Jul-21	7.6	<0.02	<0.0001	<0.0002	<0.0005	0.042	0.021	0.084	0.78	0.0038	<2	<1
EK-080804-DW	drinking water	water	Aug-04	5.6	<0.02	<0.0001	<0.0002	<0.0005	0.062	0.026	<0.03	1.3	0.0016	<2	<1

* indicates a laboratory duplicate result

Table 3.0: QIA Water Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Date Collected	pH	Ag (total)	Al (total)	As (total)	B (total)	Ba (total)	Be (total)	Ca (total)	Cd (total)	Co (total)	Cr (total)	Cu (total)	Fe (total)	K (total)	Mg (total)	Mn (total)	Mo (total)
CWQG for the Protection of Aquatic Life - Freshwater						**<6.5, >9**	**0.0001**	**0.1**	**0.005**					**0.000017**		**0.0089**	**0.002**	**300**				**0.073**
CWQG for the Protection of Aquatic Life - Marine						**<7.0, >8.7**	**-**	**-**	**0.0125**					**0.00012**		**0.056**	**-**	**-**				**-**
Units							**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
1257	Glacier Runoff to Water Lake	water quality		water	Sep-02	7.69	<0.005	44.1	<0.003	<0.05	0.30	<0.003	7.8	<0.001	0.027	0.13	0.070	64.8	16.3	21.1	0.52	<0.005
1258	River from Water Lake to Fjord	water quality		water	Sep-02	7.47	<0.005	3.4	<0.003	<0.05	0.029	<0.003	<2.0	<0.001	0.003	0.011	0.007	5.3	1.5	1.9	0.048	<0.005
1259	Fjord near River Discharge	water quality		water	Sep-02	7.03	<0.005	0.35	<0.003	0.098	0.014	<0.003	17.9	<0.001	0.003	<0.005	<0.005	0.63	12.3	37.5	0.029	<0.005

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Date Collected	Na (total)	Ni (total)	P (total)	Pb (total)	S (total)	Sb (total)	Se (total)	Sn (total)	Sr (total)	Ti (total)	Tl (total)	U (total)	V (total)	Zn (total)	PCBs (total)	Cr (VI)	Hardness
CWQG for the Protection of Aquatic Life - Freshwater							**0.025**		**0.001**			**0.001**				**0.008**			**0.03**		**0.001**	
CWQG for the Protection of Aquatic Life - Marine							**-**		**-**			**-**				**-**			**-**		**0.0015**	
Units						**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	
1257	Glacier Runoff to Water Lake	water quality		water	Sep-02	2.1	0.066	0.39	0.017	1.9	<0.01	<0.01	<0.005	0.031	3.9	<0.005	<0.01	0.13	0.14		0.13	28
1258	River from Water Lake to Fjord	water quality		water	Sep-02	<1.0	0.010	<0.1	<0.01	1.1	<0.01	<0.01	<0.005	0.007	0.26	<0.005	<0.01	0.010	0.018	<0.003	<0.05	8
1259	Fjord near River Discharge	water quality		water	Sep-02	298	0.016	<0.1	0.028	29.2	<0.01	<0.01	<0.005	0.21	0.040	<0.005	<0.01	<0.003	0.013	<0.003	<0.05	215

* indicates a laboratory duplicate result

Table 4.0: Sewage Discharge Results

Sample #	Area	Sampling Program	Sample Matrix	Date Collected	BOD	TSS	Fecal Coliforms	pH	Oil and Grease
Sewage Discharge					**120**	**180**	**10,000**	**<6, >9**	**none visible**
Units					**mg/L**	**mg/L**	**CFU/100 mL**		**mg/L**
1029	Sewage Lagoon	sewage discharge	water	Jul-28	31.9	79	>150	6.5	3.5
1177	Sewage Lagoon	sewage discharge	water	Aug-16	85	**790**	>150	6.86	none visible
1269	Sewage Lagoon	sewage discharge	water	Aug-27	**136**	**223**	>150	7.31	14.6

* indicates a laboratory duplicate result

Table 5.0: Water Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Date Collected	pH	Oil & Grease	As (total)	Zn (total)	Hg (total)	Cd (diss)	Cr (diss)	Co (diss)	Cu (diss)	Pb (diss)	Ni (diss)	Phenols	PCBs (total)	Total Glycol	F1 Reported	F2 Reported	F3 Reported	F4 Reported
Water Discharge						**<6, >9**	**5**	**0.1**	**0.5**	**0.6**	**0.01**	**0.1**	**0.05**	**0.2**	**0.05**	**0.2**	**20**	**1000**	**2**				
Units							**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**µg/L**	**%**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
565	BPA-FP5	discharge		water	Jul-09	6.90	**24.9**	<0.003	0.429	<0.05	<0.001	<0.005	0.006	<0.005	<0.010	0.016	2.1	<3.0	<2				
566	BPA-FP6	discharge		water	Jul-09	6.91	**15.1**	<0.003	0.421	<0.05	<0.001	<0.005	0.006	<0.005	<0.010	0.018	2.2	<3.0	<2				
567	BPA-FP7	discharge		water	Jul-09	6.88	**8.5**	<0.003	0.388	<0.05	<0.001	<0.005	0.004	<0.005	<0.010	0.013	2.0	<3.0	<2				
568	BPA-FP8	discharge		water	Jul-09	6.84	**10.1**	<0.003	**0.623**	<0.05	<0.001	<0.005	0.006	<0.005	<0.010	0.034	16.3	<3.0	<2				
569	BPA-FP9	discharge		water	Jul-09	6.83	**9.9**	<0.003	**0.696**	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.010	9.5	<3.0	<2				
570	BPA-FP12	discharge		water	Jul-09	7.22	**26.7**	<0.003	0.219	<0.05	<0.001	<0.005	0.007	<0.005	<0.010	0.015	4.5	<3.0	<2				
571	BPA-FP10	discharge		water	Jul-09												**328**						
799	BPA-FP 5	discharge		water	Jul-20		<2.0		0.181														
800	BPA-FP 6	discharge	801	water	Jul-20		3.3		0.169														
801	BPA-FP 6	discharge	800	water	Jul-20		3.2		0.188														
802	BPA-FP 7	discharge		water	Jul-20		<2.0		0.181														
803	BPA-FP 8	discharge		water	Jul-20		<2.0		0.175														
834	BPA FP 11	discharge		water	Jul-24	**9.28**	2.6	0.004	0.080	<0.05	<0.001	<0.005	<0.003	0.006	0.011	<0.010	**31.6**	<3.0	<2				
835	BPA FP 13	discharge		water	Jul-24	**9.61**	2	<0.003	0.079	<0.05	<0.001	<0.005	<0.003	0.006	0.013	<0.010	**87.2**	<3.0	<2				
852	BPA-FP 10	discharge		water	Jul-22	7.89	3.3	<0.003	0.068	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.019	4.7	<3.0	<2				
853	BPA-FP 9	discharge		water	Jul-22	10.79	**6.7**	0.005	0.108	<0.05	<0.001	<0.005	<0.003	0.011	0.039	<0.010	**334**	<3.0	<2				
854	BPA-FP 12	discharge		water	Jul-22	10.01	**14.4**	0.007	0.079	<0.05	<0.001	<0.005	<0.003	0.008	0.014	<0.010	**120**	<3.0	<2				
976	Flower Pot 12	discharge		water	Aug-18	9.74	36.9	<0.003	1.01	<0.05							612	<3.0	<2				
1025	BPA FP 5	discharge		water	Jul-27	7.01*	**8.1**	0.003	0.060	<0.05	<0.001	<0.005	<0.003	0.005	<0.010	0.007	**51.2***	10*	<2				
1026	BPA FP 6	discharge		water	Jul-27	7.38	**20.5**	<0.003	0.074	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.005	**49.6**	6.3	<2				
1027	BPA FP 7	discharge		water	Jul-27	7.38	3.3	<0.003	0.069	<0.05	<0.001	0.009	<0.003	<0.005	<0.010	0.017	**31.0**	26	<2				
1028	BPA FP 8	discharge		water	Jul-27	6.40	2.8	<0.003	0.079	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.005	**24.8**	16	<2				
1040	Beach POL contact water	discharge	no dup	water	Jul-30	7.18	**135**	<0.003	<0.010	<0.05	<0.001	<0.005	<0.003	<0.005	0.018	<0.010	1.5	<3.0	<2				
1045	BPA FP 11	discharge		water	Aug-03	7.40	**11.2**	<0.003	0.104	<0.05	<0.001	<0.005	<0.003	<0.005	0.011	<0.010	**54.3**	<3.0	<2				
1048	BPA FP 12	discharge		water	Aug-03	7.52	<2.0	<0.003	0.049	<0.05	<0.001	<0.005	<0.003	<0.005	0.006	<0.010	**62.0**	<3.0	<2				
1049	BPA FP 13	discharge		water	Aug-03	7.56	<2.0	<0.003	0.028	<0.05	<0.001	<0.005	<0.003	<0.005	0.005	<0.010	**40.3**	<3.0	<2				
1051	BPA FP 9	discharge	no dup	water	Aug-03	7.48*	3.5	<0.003	0.023	<0.05	<0.001	<0.005	<0.003	<0.005	0.011	<0.010	**58.9***	<3.0	<2				
1168	Flower Pot 5	discharge		water	Aug-15	7.48	<2.0	<0.003	0.034	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	<0.005	13.7	<3.0	<2				
1169	Flower Pot 6	discharge		water	Aug-15	7.51	<2.0	<0.003	0.028	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.005	17.1	<3.0	<2				
1170	Flower Pot 7	discharge	1171	water	Aug-15	7.41	<2.0	<0.003	0.024	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.013	15.4	<3.0	<2				
1171	Flower Pot 7	discharge	1170	water	Aug-15	7.40	<2.0	<0.003	0.036	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.006	18.5	<3.0	<2				
1172	Flower Pot 8	discharge		water	Aug-15	7.37	<2.0	<0.003	0.019	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.006	15.4	<3.0	<2				
1173	Flower Pot 13	discharge		water	Aug-15	7.22	3.5	<0.003	**0.618**	<0.05	<0.001	<0.005	<0.003	<0.005	0.025	0.019	**755**	<3.0	<2				
1197	Flower Pot 11	discharge		water	Aug-18	7.15	**89.6**	<0.003	**1.15**	<0.05							**698**	<3.0	<2				
1198	Flower Pot 5	discharge		water	Aug-18	7.50	**96.4**	<0.003	**0.564**	<0.05							**737**	<3.0	<2				
1199	Flower Pot 6	discharge		water	Aug-18	7.13	**67.6**	<0.003	**0.674**	<0.05							**674**	<3.0	<2				
1200	Flower Pot 9	discharge	no dup	water	Aug-18	7.00	**75.9**	<0.003	**0.881**	<0.05							**659**	<3.0	<2				
1201	Flower Pot 7	discharge	no dup	water	Aug-19	7.19	**76.9**	<0.003	0.288	<0.05							**737**	<3.0	<2				
1202	Flower Pot 8	discharge		water	Aug-19	7.08*	**65.6**	<0.003	0.093	<0.05*							**863***	<3.0	<2				
1203	landfarm	monitoring	S MW	water	Aug-26															< 0.05	< 0.5	< 1.0	< 1.0
1204	landfarm	monitoring	N MW	water	Aug-26															< 0.05	< 0.5	< 1.0	< 1.0

* indicates a laboratory duplicate result

Table 6.0: Landfarm Sampling Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	F1 Reported	F2 Reported	F3 Reported	F4 Reported
Soil Tier II							**260**	**900**	**800**	**5600**
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
1060	Landfarm	confirmatory	1061	soil	0-50	Aug-05	<60	72	<10	<10
1061	Landfarm	confirmatory	1060	soil	0-50	Aug-05	<60	78	<10	<10
1062	Landfarm	confirmatory		soil	0-50	Aug-05	<60	65	<10	<10
1063	Landfarm	confirmatory		soil	0-50	Aug-05	<60	157	<10	<10
1064	Landfarm	confirmatory		soil	0-50	Aug-05	<60	<10	<10	<10
1077	Landfarm	confirmatory		soil	0-50	Aug-09	14	450	55	<10
1078	Landfarm	confirmatory		soil	0-50	Aug-09	11	380	33	<10
1079	Landfarm	confirmatory		soil	0-50	Aug-09	<60	700	51	<10
1080	Landfarm	confirmatory	1081	soil	0-50	Aug-09	16	780	63	<10
1081	Landfarm	confirmatory	1080	soil	0-50	Aug-09	16	580	45	<10
1082	Landfarm	confirmatory		soil	0-50	Aug-09	10	590	54	<10
1083	Landfarm	confirmatory		soil	0-50	Aug-09	13	**1100**	120	<10
1084	Landfarm	confirmatory		soil	0-50	Aug-09	<60	**1000**	97	<10
1085	Landfarm	confirmatory		soil	0-50	Aug-09	140	**910**	90	<10
1086	Landfarm	confirmatory		soil	0-50	Aug-09	15	820	100	<10
1087	Landfarm	confirmatory		soil	0-50	Aug-09	21	670	66	<10
1088	Landfarm	confirmatory		soil	0-50	Aug-09	16	650	53	<10
1089	Landfarm	confirmatory		soil	0-50	Aug-09	<60	570	54	<10
1090	Landfarm	confirmatory	1091	soil	0-50	Aug-09	91	890	110	<10
1091	Landfarm	confirmatory	1090	soil	0-50	Aug-09	27	**1000**	53	<10
1092	Landfarm	confirmatory		soil	0-50	Aug-09	35	**1100**	70	<10
1093	Landfarm	confirmatory		soil	0-50	Aug-09	24	**1000**	40	<10
1094	Landfarm	confirmatory		soil	0-50	Aug-09	29	750	40	<10
1190	landfarm	confirmatory	1191	soil	0-50	Aug-17	15	790	115	<10
1191	landfarm	confirmatory	1190	soil	0-50	Aug-17	11	690	68	<10
1192	landfarm	confirmatory		soil	0-50	Aug-17	<60	510	96	<10
1193	landfarm	confirmatory		soil	0-50	Aug-17	10	660	78	<10
1194	landfarm	confirmatory		soil	0-50	Aug-17	<60	540	280	<10
1195	landfarm	confirmatory		soil	0-50	Aug-17	22	**1100**	82	<10
1196	landfarm	confirmatory		soil	0-50	Aug-17	27	630	33	<10

* indicates a laboratory duplicate result

Table 7.0: Non-Hazardous Wate Landfill 2008 Monitoring Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Metals								PCB Total	F1-F4 PHC			
							Cu	Cd	Cr	Co	Pb	Ni	Zn	As		F1 Reported	F2 Reported	F3 Reported	F4 Reported
Soil and Paint CEPA Criteria															*50*				
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**	**260**	**900**	**800**	**5600**
Soil Tier I											200				1				
Units							**mg/kg**												
1178	Non-Haz Landfill	landfill monitoring		soil	0	Aug-26	10.2	<1.0	21	<5.0	<10	7.6	20	<4.0	<1.0	<60	20	<10	<10
1179	Non-Haz Landfill	landfill monitoring		soil	30	Aug-26	10.4	<1.0	<20	<5.0	<10	5.8	18	<4.0	<1.0	<60	235	<10	<10
1180	Non-Haz Landfill	landfill monitoring	1181	soil	0	Aug-26	13.7	<1.0	28	<5.0	<10	9.0	24	<4.0	<1.0	<60	28	61	<10
1181	Non-Haz Landfill	landfill monitoring	1180	soil	0	Aug-26	13.7	<1.0	26	<5.0	<10	9.1	23	<4.0	<1.0	<60	18	<10	<10
1182	Non-Haz Landfill	landfill monitoring		soil	30	Aug-26	7.3	<1.0	<20	<5.0	<10	<5.0	<15	<4.0	<1.0	<60	11	<10	<10
1183	Non-Haz Landfill	landfill monitoring		soil	0	Aug-26	7.9	<1.0	<20	<5.0	<10	<5.0	<15	<4.0	<1.0	<60	<10	112	<10
1184	Non-Haz Landfill	landfill monitoring		soil	30	Aug-26	10.7	<1.0	21	<5.0	<10	7.5	19	<4.0	<1.0	<60	18	90	73
1185	Non-Haz Landfill	landfill monitoring		soil	0	Aug-26	8.6	<1.0	<20	<5.0	<10	6.1	17	<4.0	<1.0	<60	<10	303	<10
1186	Non-Haz Landfill	landfill monitoring		soil	30	Aug-26	12.1	<1.0	24	<5.0	<10	7.0	21	<4.0	<1.0	<60	*20	*36	*<10
1187	Non-Haz Landfill	landfill monitoring		soil	0	Aug-26	12.0	<1.0	30	<5.0	<10	8.9	25	<4.0	<1.0	<60	<10	149	<10
1188	Non-Haz Landfill	landfill monitoring		soil	33	Aug-26	16.1	<1.0	29	<5.0	<10	8.9	26	<4.0	<1.0	*<60	*<10	*<10	*<10

* indicates a laboratory duplicate result

Table 8.0: Barrel Sampling Results

Sample #	Area	Sampling Program	Field Dup TN	Date Collected	Glycol	Cd	Cr	Pb	TOX (as Cl)	PCBs (total)	Flashpoint
Soil and Paint CEPA Criteria										*50*	
Barrels					**20,000**	**2**	**10**	**100**	**1000**	**2**	**<25, >225**
Units					**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**°C**
676	BPA barrel sample	barrel protocol		Jul-18						<2	>99
677	BPA barrel sample	barrel protocol		Jul-18						**2**	96
678	BPA barrel sample	barrel protocol		Jul-18						**18**	191
679	BPA barrel sample	barrel protocol		Jul-18						<2	>99
963	BPA barrel sample	barrel protocol		Jul-30		<1	<1	<1	117	<1	193
1030	BPA barrel sample	barrel protocol	1031	Jul-30						**5**	81
1031	BPA barrel sample	barrel protocol	1030	Jul-30						**3**	>99
1032	BPA barrel sample	barrel protocol		Jul-30						<2	164
1033	BPA barrel sample	barrel protocol		Jul-30					<2	<2	>99
1034	BPA barrel sample	barrel protocol		Jul-30		<1	<1	<1	333	<1	152
1035	BPA barrel sample	barrel protocol		Jul-30						<1	>99
1036	BPA barrel sample	barrel protocol		Jul-30	**510,000**	<2	<10	<100	<1000	<2	
1037	BPA barrel sample	barrel protocol		Jul-30					<2	**<3**	47
1038	BPA barrel sample	barrel protocol		Jul-30						**19**	>99
1039	BPA barrel sample	barrel protocol		Aug-03		<1	<1	**1202**	359	**2**	<40
1041	BPA barrel sample	barrel protocol	no dup	Aug-02		<1	<1	**1033**	422	<1	<40
1042	BPA barrel sample	barrel protocol		Aug-02		<1	<1	**745**	336	<1	<40
1043	BPA barrel sample	barrel protocol		Aug-02						<1	>99
1044	BPA barrel sample	barrel protocol		Aug-02						<1	213
1046	BPA barrel sample	barrel protocol		Aug-02						<2	>99
1047	BPA barrel sample	barrel protocol		Aug-02						<1	>99
1049	BPA barrel sample	barrel protocol		Aug-02					<2	<2	>99
1050	BPA barrel sample	barrel protocol	no dup	Aug-02		<1	<1	41	<2	<1	<40
1052	BPA barrel sample	barrel protocol		Aug-04						*58*	<143
1053	BPA barrel sample	barrel protocol		Aug-02		<1	<1	15	<2	<1	58
1054	BPA barrel sample	barrel protocol		Aug-03		<1	<1	94	<2	<1	64
1055	BPA barrel sample	barrel protocol		Aug-03						<1	
1174	BPA barrel sample	barrel protocol		Aug-15						<1	<40
1175	BPA barrel sample	barrel protocol		Aug-15						<1	59
1176	BPA barrel sample	barrel protocol		Aug-15						<1	>95
1189	BPA barrel sample	barrel protocol		Aug-17						<1	>95

* indicates a laboratory duplicate result

Table 9.0: Barrel Processing Area Confirmatory Sampling Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total	F1 Reported	F2 Reported	F3 Reported	F4 Reported
Soil and Paint CEPA Criteria															*50*				
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**	**260**	**900**	**800**	**5600**
Soil Tier I											200				1				
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
1233	BPA	confirmatory		soil	0	Aug-27	21.0	<1.0	64	12.5	<10	27.8	66	<4.0	<1.0	<10	<10	<10	<10
1234	BPA	confirmatory		soil	0	Aug-27	31.2	<1.0	82	15.6	<10	36.7	88	<4.0	<1.0	<10	<10	<10	<10
1235	BPA	confirmatory		soil	0	Aug-27	28.8	<1.0	79	14.7	<10	35.7	85	<4.0	<1.0	<10	<10	<10	<10
1236	BPA	confirmatory		soil	0	Aug-27	20.9	<1.0	62	12.2	<10	27.8	66	<4.0	<1.0	<10	<10	<10	<10
1237	BPA	confirmatory		soil	0	Aug-27	31.8	<1.0	86	16.9	11	39.7	93	<4.0	<1.0	<10	<10	33	<10
1238	BPA	confirmatory		soil	0	Aug-27	30.7	<1.0	82	15.6	13	37.5	91	<4.0	<1.0	<10	<10	50	<10
1239	BPA	confirmatory		soil	0	Aug-27	25.1	<1.0	68	13.1	37	29.4	76	<4.0	<1.0	<10	21	110	<10
1240	BPA	confirmatory	1241	soil	0	Aug-27	38.1	<1.0	86	17.4	<10	40.1	98	<4.0	<1.0	<10	<10	<10	<10
1241	BPA	confirmatory	1240	soil	0	Aug-27	29.7	<1.0	83	16.0	10	38.3	89	<4.0	<1.0	<10	<10	<10	<10
1242	BPA	confirmatory		soil	0	Aug-27	25.3	<1.0	59	12.4	<10	28.6	66	<4.0	<1.0	<10	<10	<10	<10
1243	BPA	confirmatory		soil	0	Aug-27	29.2	<1.0	74	15.0	23	34.2	88	<4.0	<1.0	<10	<10	64	<10
1244	BPA	confirmatory		soil	0	Aug-27	33.5	<1.0	84	16.8	17	39.2	100	<4.0	<1.0	<10	25	120	67
1245	BPA	confirmatory		soil	0	Aug-27	28.6	<1.0	73	15.4	12	35.3	89	<4.0	<1.0	<10	83	37	<10
1246	BPA	confirmatory		soil	0	Aug-27	41.3	<1.0	90	18.7	18	45.3	135	4.7	<1.0	<10	<10	150	57
1247	BPA	confirmatory		soil	0	Aug-27	21.9	<1.0	59	11.6	39	26.9	66	<4.0	<1.0	<10	<10	18	<10
1248	BPA	confirmatory		soil	0	Aug-27	10.3	<1.0	24	<5.0	15	11.4	28	<4.0	<1.0	<10	17	66	<10
1249	BPA	confirmatory		soil	0	Aug-27	14.2	<1.0	22	<5.0	19	11.4	25	<4.0	<1.0	<10	<10	<10	<10
1250	BPA	confirmatory	1251	soil	0	Aug-27	17.2	<1.0	26	5.7	<10	14.0	29	<4.0	<1.0	<10	<10	<10	<10
1251	BPA	confirmatory	1250	soil	0	Aug-27	15.3	<1.0	23	5.2	<10	12.6	26	<4.0	<1.0	<10	<10	<10	<10
1252	BPA	confirmatory		soil	0	Aug-27	22.3	<1.0	52	10.9	<10	28.3	59	<4.0	<1.0	<10	<10	29	<10
1253	BPA	confirmatory		soil	0	Aug-27	21.3	<1.0	56	11.6	<10	26.4	62	<4.0	<1.0	<10	35	76	<10
1254	BPA	confirmatory		soil	0	Aug-27	27.3	<1.0	75	14.3	15	33.1	77	<4.0	<1.0	<10	60	71	<10
1255	BPA	confirmatory		soil	0	Aug-27	24.9	<1.0	69	13.4	25	31.8	71	<4.0	<1.0	<10	<10	33	<10
1256	BPA	confirmatory		soil	0	Aug-27	28.3	<1.0	83	14.9	13	40.8	87	<4.0	<1.0	<10	<10	<10	<10

* indicates a laboratory duplicate result

Table 10.0: Lower Material Processing Area Confirmatory Samples

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total
Soil and Paint CEPA Criteria															*50*
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**
Soil Tier I											200				1
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
515	MPA	baseline		soil	0	Jul-02	16.7	<1.0	27	5.0	<10	10.7	31	<4.0	
516	MPA	baseline		soil	0	Jul-02	12.0	<1.0	21	<5.0	<10	7.3	21	<4.0	
517	MPA	baseline		soil	0	Jul-02	14.5	<1.0	<20	<5.0	10	7.7	18	4.7	
518	MPA	baseline		soil	0	Jul-02	14.0	<1.0	<20	<5.0	<10	7.8	19	<4.0	
519	MPA	baseline		soil	0	Jul-02	12.3	<1.0	<20	<5.0	<10	6.8	18	<4.0	
520	MPA	baseline		soil	0	Jul-02	12.3	<1.0	<20	<5.0	<10	7.4	18	<4.0	
521	MPA	baseline		soil	0	Jul-02	11.8	<1.0	<20	<5.0	<10	7.2	19	<4.0	
522	MPA	baseline		soil	0	Jul-02	11.0	<1.0	<20	<5.0	<10	6.0	16	<4.0	
523	MPA	baseline		soil	0	Jul-02	11.8	<1.0	<20	<5.0	<10	6.9	18	<4.0	
524	MPA	baseline		soil	0	Jul-02	15.9	<1.0	29	5.1	<10	10.3	27	<4.0	
525	MPA	baseline		soil	0	Jul-02	8.6	<1.0	<20	<5.0	<10	5.1	<15	<4.0	
526	MPA	baseline		soil	0	Jul-02	9.3	<1.0	<20	<5.0	<10	6.5	16	<4.0	
527	MPA	baseline		soil	0	Jul-02	11.2	<1.0	21	<5.0	<10	7.9	20	<4.0	
528	MPA	baseline		soil	0	Jul-02	9.3	<1.0	<20	<5.0	<10	6.2	16	<4.0	
529	MPA	baseline		soil	0	Jul-02	7.9	<1.0	<20	<5.0	<10	<5.0	15	<4.0	
530	MPA	baseline	531	soil	0	Jul-02	9.3	<1.0	<20	<5.0	<10	5.7	16	<4.0	
531	MPA	baseline	530	soil	0	Jul-02	9.6	<1.0	<20	<5.0	<10	6.1	18	<4.0	
532	MPA	baseline		soil	0	Jul-02	19.6	<1.0	26	<5.0	<10	9.2	26	<4.0	
533	MPA	baseline		soil	0	Jul-02	18.7	<1.0	29	<5.0	<10	8.8	28	<4.0	
534	MPA	baseline		soil	0	Jul-02	13.7	<1.0	41	5.5	<10	10.8	28	<4.0	
535	MPA	baseline		soil	0	Jul-02	12.2	<1.0	21	<5.0	<10	7.4	20	<4.0	
536	MPA	baseline		soil	0	Jul-02	14.2	<1.0	29	<5.0	<10	9.8	27	<4.0	
537	MPA	baseline		soil	0	Jul-02	12.8	<1.0	25	<5.0	<10	9.6	23	<4.0	
538	MPA	baseline		soil	0	Jul-02	15.8	<1.0	28	<5.0	<10	9.6	27	<4.0	
539	MPA	baseline		soil	0	Jul-02	17.0	<1.0	32	6.2	<10	15.9	34	<4.0	
540	MPA	baseline	541	soil	0	Jul-02	13.8	<1.0	26	<5.0	<10	9.7	26	<4.0	
541	MPA	baseline	540	soil	0	Jul-02	13.5	<1.0	25	<5.0	<10	9.4	25	<4.0	
542	MPA	baseline		soil	0	Jul-02	14.4	<1.0	27	<5.0	<10	9.4	26	<4.0	
1205	MPA	confirmatory		soil	0	Aug-26	**118.2**	<1.0	24	<5.0	196	19.4	147	<4.0	3.2
1206	MPA	confirmatory		soil	0	Aug-26	20.6	<1.0	21	<5.0	20	10.1	29	5.0	<1.0
1207	MPA	confirmatory		soil	0	Aug-26	20.2	<1.0	<20	<5.0	94	8.5	34	<4.0	<1.0
1208	MPA	confirmatory		soil	0	Aug-26	23.0	<1.0	22	<5.0	77	11.2	69	<4.0	<1.0
1209	MPA	confirmatory		soil	0	Aug-26	25.5	<1.0	<20	<5.0	73	8.5	53	<4.0	<1.0
1210	MPA	confirmatory	1211	soil	0	Aug-26	15.4	<1.0	<20	<5.0	32	16.0	39	<4.0	<1.0
1211	MPA	confirmatory	1210	soil	0	Aug-26	15.4	<1.0	<20	<5.0	45	8.9	37	<4.0	<1.0
1212	MPA	confirmatory		soil	0	Aug-26	20.4	<1.0	21	<5.0	98	11.7	60	<4.0	1.8
1213	MPA	confirmatory		soil	0	Aug-26	17.2	<1.0	<20	<5.0	60	8.5	52	<4.0	<1.0
1214	MPA	confirmatory		soil	0	Aug-26	11.2	<1.0	<20	<5.0	<10	8.0	25	<4.0	<1.0
1215	MPA	confirmatory		soil	0	Aug-26	9.9	<1.0	<20	<5.0	<10	5.3	18	<4.0	<1.0
1216	MPA	confirmatory		soil	0	Aug-26	12.2	<1.0	<20	<5.0	22	6.2	25	<4.0	<1.0
1217	MPA	confirmatory		soil	0	Aug-26	12.6	<1.0	<20	<5.0	24	7.8	31	<4.0	<1.0
1218	MPA	confirmatory		soil	0	Aug-26	20.1	<1.0	21	<5.0	11	8.9	29	<4.0	<1.0
1219	MPA	confirmatory		soil	0	Aug-26	12.7	<1.0	<20	<5.0	30	7.6	32	<4.0	<1.0
1220	MPA	confirmatory	1221	soil	0	Aug-26	33.9	<1.0	20	<5.0	<10	8.4	24	<4.0	<1.0
1221	MPA	confirmatory	1220	soil	0	Aug-26	16.3	<1.0	25	<5.0	<10	9.9	28	<4.0	<1.0
1222	MPA	confirmatory		soil	0	Aug-26	16.3	<1.0	25	<5.0	<10	9.3	26	<4.0	<1.0
1223	MPA	confirmatory		soil	0	Aug-26	15.7	<1.0	29	5.0	20	10.0	31	<4.0	<1.0
1224	MPA	confirmatory		soil	0	Aug-26	11.3	<1.0	<20	<5.0	14	7.4	23	<4.0	<1.0
1225	MPA	confirmatory		soil	0	Aug-26	12.4	<1.0	23	<5.0	<10	11.0	24	<4.0	<1.0
1226	MPA	confirmatory		soil	0	Aug-26	18.2	<1.0	27	5.0	19	14.2	38	<4.0	<1.0
1227	MPA	confirmatory		soil	0	Aug-26	16.3	<1.0	25	<5.0	26	10.8	37	<4.0	<1.0
1228	MPA	confirmatory		soil	0	Aug-26	17.7	<1.0	26	<5.0	<10	11.0	30	<4.0	<1.0
1229	MPA	confirmatory		soil	0	Aug-26	16.2	<1.0	27	<5.0	<10	11.3	31	<4.0	<1.0
1230	MPA	confirmatory	1231	soil	0	Aug-26	13.5	<1.0	23	<5.0	<10	9.4	26	<4.0	<1.0
1231	MPA	confirmatory	1231	soil	0	Aug-26	19.4	<1.0	31	6.6	<10	16.2	37	<4.0	<1.0
1232	MPA	confirmatory		soil	0	Aug-26	13.0	<1.0	<20	<5.0	28	7.3	39	<4.0	<1.0
1260	MPA	confirmatory-round 2	1261	soil	wall/base	Sep-02	<40								
1261	MPA	confirmatory-round 2	1260	soil	wall/base	Sep-02	<40								
1262	MPA	confirmatory-round 2		soil	wall/base	Sep-02	<40								
1263	MPA	confirmatory-round 2		soil	base	Sep-02	<40								
1264	MPA	confirmatory-round 2		soil	wall/base	Sep-02	<40								
1265	MPA	confirmatory-round 2		soil	wall/base	Sep-02	<40								

* indicates a laboratory duplicate result

Table 11.0: Beach POL Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	F1 Reported	F2 Reported	F3 Reported	F4 Reported
Soil Tier II							**260**	**900**	**800**	**5600**
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
582	Beach POL	confirmatory		soil	0-100	Jul-12	<60	115	119	<10
583	Beach POL	confirmatory		soil	0-100	Jul-12	<60	<10	<10	<10
584	Beach POL	confirmatory		soil	0-60	Jul-12	<60	413	17	<10
585	Beach POL	confirmatory		soil	0-60	Jul-12	<60	**1219**	<10	<10
586	Beach POL	confirmatory		soil	0-60	Jul-12	<60	<10	<10	<10
587	Beach POL	confirmatory		soil	0-60	Jul-12	<60	<10	<10	<10
588	Beach POL	confirmatory		soil	0-60	Jul-12	<60	<10	<10	28
589	Beach POL	confirmatory		soil	0-60	Jul-12	<60	873	<10	<10
590	Beach POL	confirmatory		soil	0-60	Jul-12	<60	<10	<10	<10
591	Beach POL	confirmatory		soil	0-60	Jul-12	<60	13	<10	<10
592	Beach POL	confirmatory		soil	0-60	Jul-12	<60	<10	<10	<10
593	Beach POL	confirmatory		soil	0-100	Jul-12	<60	<10	<10	<10
594	Beach POL	confirmatory		soil	70	Jul-12	<60	<10	<10	<10
595	Beach POL	confirmatory		soil	60	Jul-12	<60	<10	<10	<10
596	Beach POL	confirmatory		soil	60	Jul-12	<60	<10	<10	<10
597	Beach POL	confirmatory		soil	60	Jul-12	<60	48	<10	<10
598	Beach POL	confirmatory		soil	70	Jul-12	<60	225	<10	<10
599	Beach POL	confirmatory		soil	70	Jul-12	<60	160	23	<10
600	Beach POL	confirmatory		soil	70	Jul-12	<60	76	527	<10
601	Beach POL	confirmatory		soil	70	Jul-12	<60	419	<10	<10
602	Beach POL	confirmatory		soil	100	Jul-12	<60	<10	<10	<10
603	Beach POL	confirmatory		soil	100	Jul-12	<60	374	<10	<10
952	Beach POL	confirmatory		soil	40-80	Jul-27	<60	<10	<10	<10
953	Beach POL	confirmatory		soil	40-80	Jul-27	<60	<10	<10	<10
954	Beach POL	confirmatory		soil	40-80	Jul-27	<60	<10	<10	<10
955	Beach POL	confirmatory		soil	40-80	Jul-27	<60	<10	<10	<10
956	Beach POL	confirmatory		soil	40-80	Jul-27	<60	<10	<10	<10
957	Beach POL	confirmatory		soil	0-60	Jul-29	<60	<10	<10	<10
958	Beach POL	confirmatory		soil	0-100	Jul-29	<60	173	<10	<10
959	Beach POL	confirmatory		soil	0-100	Jul-29	<60	43	<10	<10
960	Beach POL	confirmatory	961	soil	0-100	Jul-29	<60	197	<10	<10
961	Beach POL	confirmatory	960	soil	0-100	Jul-29	<60	<10	<10	<10
962	Beach POL	confirmatory		soil	0-100	Jul-29	<60	<10	<10	<10
995	Beach POL	confirmatory		soil	0	Jul-29	<60	105	<10	<10
996	Beach POL	confirmatory		soil	0	Jul-29	<60	<10	<10	<10
997	Beach POL	confirmatory		soil	0	Jul-29	<60	70	<10	<10
998	Beach POL	confirmatory		soil	0-100	Jul-29	<60*	163	<10	<10
999	Beach POL	confirmatory		soil	0	Jul-29	<60	<10	<10	<10
1000	Beach POL	confirmatory	no dup	soil	0	Jul-29	<60	27	<10	<10

* indicates a laboratory duplicate result

Table 12.0: In-Situ Lanfarm Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	F1 Reported	F2 Reported	F3 Reported	F4 Reported
Soil Tier II							**260**	**900**	**800**	**5600**
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
1001	Water Lake Landfarm	confirmatory	no dup	soil	0-100	Jul-27	62	**1044**	<10	<10
1002	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	**946**	<10	<10
1003	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	612	<10	<10
1004	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	83*	<10*	<10*
1005	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	68	863	<10	<10
1006	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	325	<10	<10
1007	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	51	<10	<10
1008	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	93	<10	<10
1009	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60*	51	<10	<10
1010	Water Lake Landfarm	confirmatory	1011	soil	0-100	Jul-27	<60	458	<10	<10
1011	Water Lake Landfarm	confirmatory	1010	soil	0-100	Jul-27	<60	326	<10	<10
1012	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	341	<10	<10
1013	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	**1051**	<10	<10
1014	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	403	<10	<10
1015	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	280	<10	<10
1016	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	185	<10	<10
1017	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	<10	<10	<10
1018	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	<10	<10	<10
1019	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	262	<10	<10
1020	Water Lake Landfarm	confirmatory	1021	soil	0-100	Jul-27	<60	**1004**	<10	<10
1021	Water Lake Landfarm	confirmatory	1020	soil	0-100	Jul-27	<60	756	<10	<10
1022	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	<10	<10	<10
1023	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60	392	<10	<10
1024	Water Lake Landfarm	confirmatory		soil	0-100	Jul-27	<60*	227	<10*	<10*
1096	Water Lake Landfarm	base		soil	0-100	Aug-10	<10	<10	<10	<10
1098	Water Lake Landfarm	base		soil	0-100	Aug-10	<10	70	<10	<10
1100	Water Lake Landfarm	base	1101	soil	0-100	Aug-10	<10	45	<10	<10
1101	Water Lake Landfarm	base	1100	soil	0-100	Aug-10	<10	34	<10	<10
1102	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	22	420	<10	<10
1103	Water Lake Landfarm	base		soil	0-100	Aug-10	17	350	<10	<10
1104	Water Lake Landfarm	base		soil	0-100	Aug-10	22	260	<10	<10
1105	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	26	510	<10	<10
1106	Water Lake Landfarm	base		soil	0-100	Aug-10	24	540	<10	<10
1107	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	73	840	19	<10
1108	Water Lake Landfarm	base		soil	0-100	Aug-10	45	400	<10	<10
1112	Water Lake Landfarm	base		soil	0-100	Aug-10	<10	120	<10	<10
1113	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	27	520	<10	<10
1114	Water Lake Landfarm	base		soil	0-100	Aug-10	24	570	<10	<10
1116	Water Lake Landfarm	base		soil	0-100	Aug-10	<10	<10	<10	<10
1118	Water Lake Landfarm	base		soil	0-100	Aug-10	44	670	72	<10
1119	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	39	770	37	<10
1120	Water Lake Landfarm	base	1121	soil	0-100	Aug-10	<10	190	<10	<10
1121	Water Lake Landfarm	base	1120	soil	0-100	Aug-10	11	150	<10	<10
1122	Water Lake Landfarm	base		soil	0-100	Aug-10	<10	110	<10	<10
1124	Water Lake Landfarm	base		soil	0-100	Aug-10	<10	90	<10	<10
1126	Water Lake Landfarm	base		soil	0-100	Aug-10	<10	64	<10	<10
1127	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	58	750	20	<10
1128	Water Lake Landfarm	base		soil	0-100	Aug-10	45	54	<10	<10
1129	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	41	**930**	61	<10
1130	Water Lake Landfarm	confirmatory	1131	soil	0-100	Aug-10	39	700	45	<10
1131	Water Lake Landfarm	confirmatory	1130	soil	0-100	Aug-10	59	750	53	<10
1132	Water Lake Landfarm	base		soil	0-100	Aug-10	34	290	<10	<10
1133	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	34	**900**	86	<10
1134	Water Lake Landfarm	base		soil	0-100	Aug-10	<10	14	<10	<10
1135	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	31	800	80	<10
1136	Water Lake Landfarm	base		soil	0-100	Aug-10	<10	87	<10	<10
1138	Water Lake Landfarm	base		soil	0-100	Aug-10	72	720	42	<10
1139	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	<10	<10	<10	<10
1140	Water Lake Landfarm	base	1141	soil	0-100	Aug-10	<10	15	96	<10
1141	Water Lake Landfarm	base	1140	soil	0-100	Aug-10	11	10	43	<10
1142	Water Lake Landfarm	base		soil	0-100	Aug-10	29	200	<10	<10
1143	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	15	330	29	<10
1144	Water Lake Landfarm	base		soil	0-100	Aug-10	18	270	<10	<10
1145	Water Lake Landfarm	confirmatory		soil	0-100	Aug-10	82	220	<10	<10

* indicates a laboratory duplicate result

Table 13.0: River Debris Area Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total
Soil and Paint CEPA Criteria															*50*
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**
Soil Tier I											200				1
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
932	River Debris Area	assessment		soil	0	Jul-28	9.1	<1.0	<20	<5.0	<10	8.6	66	<4.0	<1.0
933	River Debris Area	assessment		soil	0	Jul-28	7.7	<1.0	<20	<5.0	<10	7.8	23	<4.0	<1.0
934	River Debris Area	assessment		soil	0	Jul-28	11.0	<1.0	<20	<5.0	87	7.3	38	<4.0	<1.0
935	River Debris Area	assessment		soil	0	Jul-28	12.6	<1.0	22	<5.0	13	8.6	30	<4.0	<1.0
936	River Debris Area	assessment		soil	0	Jul-28	15.5	<1.0	22	<5.0	16	9.2	30	<4.0	<1.0
937	River Debris Area	assessment		soil	0	Jul-28	11.5	<1.0	20	<5.0	<10	7.7	23	<4.0	<1.0
938	River Debris Area	assessment		soil	0	Jul-28	11.3	<1.0	<20	<5.0	<10	8.9	22	<4.0	<1.0
939	River Debris Area	assessment		soil	0	Jul-28	10.2	<1.0	<20	<5.0	101	7.9	21	<4.0	<1.0
940	River Debris Area	assessment	941	soil	0	Jul-28	11.8	<1.0	22	<5.0	35	7.5	51	<4.0	<1.0
941	River Debris Area	assessment	940	soil	0	Jul-28	11.0	<1.0	21	<5.0	35	7.3	52	<4.0	<1.0
942	River Debris Area	assessment		soil	0	Jul-28	18.7	<1.0	20	<5.0	18	8.9	27	<4.0	<1.0*
943	River Debris Area	assessment		soil	0	Jul-28	10.3	<1.0	<20	<5.0	10	6.8	43	<4.0	<1.0
944	River Debris Area	assessment		soil	0	Jul-28	24.3	<1.0	<20	<5.0	90	9.1	63	<4.0	<1.0
945	River Debris Area	assessment		soil	0	Jul-28	17.7	<1.0	25	<5.0	<10	10.1	31	<4.0	<1.0
946	River Debris Area	assessment		soil	0	Jul-28	10.2	<1.0	22	<5.0	<10	8.0	27	<4.0	<1.0
947	River Debris Area	assessment		soil	0	Jul-28	15.5	<1.0	24	5.3	11	10.4	27	<4.0	<1.0
948	River Debris Area	assessment		soil	0	Jul-28	14.7	<1.0	21	6.0	14	13.8	30	<4.0	
949	River Debris Area	assessment		soil	0	Jul-28	7.7	<1.0	<20	<5.0	12	5.8	19	<4.0	
950	River Debris Area	assessment	no dup	soil	0	Jul-28	9.8	<1.0	20	<5.0	<10	8.9	27	<4.0	<1.0
951	River Debris Area	assessment	no dup	soil	0	Jul-28	11.3	<1.0	<20	<5.0	<10	9.5	23	<4.0	<1.0
964	River Debris Area	assessment		soil	0	Jul-28	9.3	<1.0	<20	<5.0	49	8.5	22	<4.0	

* indicates a laboratory duplicate result

Table 14.0: Lobe B Stockpile Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total
Soil and Paint CEPA Criteria															*50*
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**
Soil Tier I											200				1
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
604	MPA Stockpile 1	confirmatory		soil		Jul-13	**329**	4.9	51	8.2	**592**	31.5	**514**	<4.0	**23**
605	MPA Stockpile 1	confirmatory		soil		Jul-13	**138**	4.6	54	9.5	**932**	42.1	**665**	<4.0	**21**
606	MPA Stockpile 1	confirmatory		soil		Jul-13	**733**	**5.4**	62	10.2	**808**	42.5	**994**	<4.0	**20**
607	MPA Stockpile 1	confirmatory		soil		Jul-13	**563**	**5.6**	60	9.5	**1635**	44.3	**694**	<4.0	**16**
608	MPA Stockpile 1	confirmatory		soil		Jul-13	**201**	4.9	74	9.8	**1472**	40.3	**904**	<4.0	*67*
609	MPA Stockpile 2	confirmatory		soil		Jul-13	**250**	**6.2**	200	11.1	**1327**	42.8	**766**	<4.0	**25**
610	MPA Stockpile 2	confirmatory	611	soil		Jul-13	**154**	4.6	55	7.7	**1704**	33.3	**655**	<4.0	**7.2**
611	MPA Stockpile 2	confirmatory	610	soil		Jul-13	**157**	3.8	57	7.6	**937**	32.1	**566**	<4.0	**16**
612	MPA Stockpile 2	confirmatory		soil		Jul-13	**630**	**9.0**	88	10.5	**1664**	41.6	**872**	<4.0	**30**
613	MPA Stockpile 2	confirmatory		soil		Jul-13	**523**	**5.1**	64	8.7	**2912**	37.7	**866**	4.9	**16**
614	MPA Stockpile 2	confirmatory		soil		Jul-13	**206**	**6.6**	63	9.5	**1381**	40.9	**951**	<4.0	**18**
615	MPA Stockpile 3	confirmatory		soil		Jul-14	**210**	**6.1**	68	9.1	**1130**	38.2	**2845**	<4.0	**18**
616	MPA Stockpile 3	confirmatory		soil		Jul-14	**147**	4.2	80	8.9	**1079**	38.1	**689**	4.1	**14**
617	MPA Stockpile 3	confirmatory		soil		Jul-14	**165**	**5.8**	66	11.9	**1338**	40.8	**730**	<4.0	**11**
618	MPA Stockpile 3	confirmatory		soil		Jul-14	**161**	**5.4**	67	8.7	**869**	39.1	**536**	<4.0	**8**
619	MPA Stockpile 3	confirmatory		soil		Jul-14	**166**	**5.1**	68	11.8	**1118**	44.8	**544**	<4.0	**14**
620	MPA Stockpile 8	confirmatory	621	soil		Jul-14	**192**	4.7	67	9.6	**1056**	48.3	**602**	<4.0	**9.7**
621	MPA Stockpile 8	confirmatory	620	soil		Jul-14	**103**	3.8	57	8.9	**4830**	39.3	**509**	6.0	**12**
622	MPA Stockpile 8	confirmatory		soil		Jul-14	**147**	**5.9**	69	9.4	**1342**	49.4	**592**	<4.0	**11**
623	MPA Stockpile 8	confirmatory		soil		Jul-14	**473**	**5.7**	69	9.8	**1510**	47.6	**674**	<4.0	**14**
624	MPA Stockpile 8	confirmatory		soil		Jul-14	**131**	4.7	61	8.8	**1449**	33.5	**500**	<4.0	**16**
625	MPA Stockpile 8	confirmatory		soil		Jul-14	**293**	3.8	57	8.3	**1074**	35.3	**527**	<4.0	**26**
626	MPA Stockpile 4	confirmatory		soil		Jul-16	**120**	3.9	52	8.3	**996**	31.0	**511**	<4.0	**20**
627	MPA Stockpile 4	confirmatory		soil		Jul-16	**134**	4.0	57	8.8	**1008**	38.6	446	<4.0	**9.6**
628	MPA Stockpile 4	confirmatory		soil		Jul-16	**138**	3.9	57	8.5	**616**	35.2	437	<4.0	**6.4**
629	MPA Stockpile 4	confirmatory		soil		Jul-16	98	3.5	51	8.0	481	32.4	400	<4.0	**9.7**
630	MPA Stockpile 4	confirmatory	631	soil		Jul-16	**152**	**5.2**	59	9.3	**660**	37.6	**527**	<4.0	**5.0**
631	MPA Stockpile 4	confirmatory	630	soil		Jul-16	**110**	3.7	53	9.2	**519**	37.6	447	<4.0	**6.6**
632	MPA Stockpile 5	confirmatory		soil		Jul-16	**558**	**5.4**	68	8.2	**4830**	33.8	**771**	<4.0	**17.0**
633	MPA Stockpile 5	confirmatory		soil		Jul-16	**2593**	4.4	57	8.4	**1043**	35.3	**569**	<4.0	**11.4**
634	MPA Stockpile 5	confirmatory		soil		Jul-16	**119**	4.0	64	8.2	**1060**	34.0	**621**	<4.0	**45.2**
635	MPA Stockpile 5	confirmatory		soil		Jul-16	**243**	4.1	57	8.7	**891**	38.9	436	<4.0	**5.3**
636	MPA Stockpile 5	confirmatory		soil		Jul-16	**141**	4.1	57	10.2	**688**	39.0	481	<4.0	**9.4**
637	MPA Stockpile 6	confirmatory		soil		Jul-16	**138**	4.6	44	7.6	**752**	29.8	395	<4.0	**9.5**
638	MPA Stockpile 6	confirmatory		soil		Jul-16	**134**	4.4	68	8.7	**985**	33.3	459	4.1	**9.5**
639	MPA Stockpile 6	confirmatory		soil		Jul-16	**154**	**6.2**	46	8.3	**1432**	30.2	486	<4.0	**7.0**
640	MPA Stockpile 6	confirmatory	641	soil		Jul-16	**126**	**5.0**	49	8.3	**4109**	31.3	**539**	<4.0	**20.5**
641	MPA Stockpile 6	confirmatory	640	soil		Jul-16	**147**	4.7	50	8.0	**1600**	33.2	479	<4.0	**28.1**
642	MPA Stockpile 6	confirmatory		soil		Jul-16	**170**	4.7	52	8.3	**935**	31.6	474	<4.0	**9.7**
643	MPA Stockpile 7	confirmatory		soil		Jul-16	**126**	4.1	47	7.5	**857**	28.1	423	<4.0	**16.7**
644	MPA Stockpile 7	confirmatory		soil		Jul-16	**236**	4.8	53	9.3	**1280**	41.5	**638**	<4.0	**12.7**
645	MPA Stockpile 7	confirmatory		soil		Jul-16	**135**	3.9	49	8.4	**728**	35.6	456	<4.0	**5.6**
646	MPA Stockpile 7	confirmatory		soil		Jul-16	**237**	4.2	55	8.8	**921**	38.9	**512**	<4.0	**5.7**
647	MPA Stockpile 7	confirmatory		soil		Jul-16	**371**	3.6	51	8.5	**713**	35.4	457	<4.0	**5.7**
648	MPA Stockpile 9	confirmatory		soil		Jul-16	**205**	**5.0**	59	9.8	**1160**	43.5	**601**	<4.0	**13.3**
649	MPA Stockpile 9	confirmatory		soil		Jul-16	**216**	3.9	49	7.6	**765**	33.2	445	<4.0	**9.1**
650	MPA Stockpile 9	confirmatory	651	soil		Jul-16	**102**	3.6	54	7.8	**1600**	32.9	443	<4.0	**8.6**
651	MPA Stockpile 9	confirmatory	650	soil		Jul-16	**224**	3.9	**1804**	21.6	**1172**	**981**	420	<4.0	**6.7**
652	MPA Stockpile 9	confirmatory		soil		Jul-16	79.6	2.3	46	7.6	**825**	27.1	322	<4.0	**5.7**
653	MPA Stockpile 9	confirmatory		soil		Jul-16	84.0	2.1	45	8.0	**538**	27.6	388	<4.0	4.5
654	MPA Stockpile 10	confirmatory		soil		Jul-16	94.7	3.2	52	7.5	**1148**	33.6	428	<4.0	**10.3**
655	MPA Stockpile 10	confirmatory		soil		Jul-16	**115**	2.7	53	8.5	**668**	32.9	413	<4.0	**6.3**
656	MPA Stockpile 10	confirmatory		soil		Jul-16	**508**	3.3	51	8.8	**636**	35.2	485	<4.0	**6.6**
657	MPA Stockpile 10	confirmatory		soil		Jul-16	**120**	3.2	54	9.1	**3091**	37.4	433	<4.0	**8.6**
658	MPA Stockpile 10	confirmatory		soil		Jul-16	**1711**	4.1	64	9.3	**1131**	38.7	**518**	<4.0	**7.3**
659	MPA Stockpile 10	confirmatory		soil		Jul-16	95.1	2.3	46	7.9	**734**	29.4	330	<4.0	**8.6**
660	MPA Stockpile 11	confirmatory	661	soil		Jul-16	**126**	3.3	52	8.6	**957**	32.5	**506**	<4.0	**13.1**
661	MPA Stockpile 11	confirmatory	660	soil		Jul-16	**172**	3.2	59	8.9	**1040**	35.1	**534**	<4.0	**9.5**
662	MPA Stockpile 11	confirmatory		soil		Jul-16	90.9	2.9	53	8.3	**1159**	31.8	382	<4.0	**5.1**
663	MPA Stockpile 11	confirmatory		soil		Jul-16	74.4	2.3	56	8.2	**798**	30.5	404	<4.0	3.9
664	MPA Stockpile 11	confirmatory		soil		Jul-16	**223**	4.0	57	9.1	**641**	32.9	468	<4.0	**12.4**
665	MPA Stockpile 12	confirmatory		soil		Jul-16	71.1	1.5	46	7.3	342	29.4	236	<4.0	2.5
666	MPA Stockpile 12	confirmatory		soil		Jul-16	79.6	2.4	50	9.0	**523**	33.0	294	<4.0	4.9
667	MPA Stockpile 12	confirmatory		soil		Jul-16	97.1	4.1	45	8.0	**1135**	27.9	351	<4.0	3.8
668	MPA Stockpile 12	confirmatory		soil		Jul-16	**118**	**5.2**	59	8.6	**1242**	28.7	387	<4.0	**5.4**
669	MPA Stockpile 12	confirmatory		soil		Jul-16	**112**	2.6	45	8.1	**670**	27.6	311	<4.0	4.8
670	MPA Stockpile 13	confirmatory	671	soil		Jul-16	**169**	3.5	56	8.7	**522**	34.9	471	<4.0	4.7
671	MPA Stockpile 13	confirmatory	670	soil		Jul-16	**111**	4.8	56	9.1	**1285**	36.5	**897**	<4.0	**5.3**
672	MPA Stockpile 13	confirmatory		soil		Jul-16	95.0	2.8	45	9.1	**590**	29.8	**555**	<4.0	3.3
673	MPA Stockpile 13	confirmatory		soil		Jul-16	74.6	2.6	46	8.3	380	31.3	395	<4.0	3.4
674	MPA Stockpile 13	confirmatory		soil		Jul-16	**158**	2.0	52	7.8	**795**	29.8	286	<4.0	3.0
675	MPA Stockpile 13	confirmatory		soil		Jul-16	**132**	2.6	47	9.3	**13821**	42.3	299	10.5	3.8
680	MPA Stockpile 14	confirmatory	681	soil		Jul-19	74.2	<1.0	42	8.4	142	26.8	128	<4.0	<1.0
681	MPA Stockpile 14	confirmatory	680	soil		Jul-19	36.7	<1.0	38	7.9	123	26.7	106	<4.0	<1.0
682	MPA Stockpile 14	confirmatory		soil		Jul-19	38.8	<1.0	42	9.1	257	28.4	142	<4.0	<1.0
683	MPA Stockpile 14	confirmatory		soil		Jul-19	42.0	<1.0	36	8.7	131	26.3	103	<4.0	<1.0
684	MPA Stockpile 14	confirmatory		soil		Jul-19	35.1	<1.0	36	7.4	296	24.3	146	<4.0	<1.0
685	MPA Stockpile 14	confirmatory		soil		Jul-19	33.7	<1.0	35	7.2	233	26.0	118	<4.0	<1.0
686	MPA Stockpile 14	confirmatory		soil		Jul-19	56.6	<1.0	38	8.2	194	24.6	136	<4.0	<1.0
687	MPA Stockpile 14	confirmatory		soil		Jul-19	37.2	1.8	37	7.8	307	28.3	150	<4.0	<1.0
688	MPA Stockpile 15	confirmatory		soil		Jul-19	45.3	<1.0	41	7.5	210	22.9	190	<4.0	1.6
689	MPA Stockpile 15	confirmatory		soil		Jul-19	94.6	1.2	35	7.5	226	28.3	172	<4.0	<1.0
690	MPA Stockpile 15	confirmatory	691	soil		Jul-19	36.7	1.5	41	7.6	207	22.8	153	<4.0	<1.0
691	MPA Stockpile 15	confirmatory	690	soil		Jul-19	38.0	<1.0	43	7.9	182	24.4	181	<4.0	<1.0
692	MPA Stockpile 15	confirmatory		soil		Jul-19	34.4	1.1	36	6.8	**614**	22.1	180	<4.0	1.9
693	MPA Stockpile 15	confirmatory		soil		Jul-19	53.8	1.4	35	7.3	145	23.0	320	<4.0	1.4
694	MPA Stockpile 16	confirmatory		soil		Jul-19	**177**	2.0	42	7.6	477	27.9	266	<4.0	3.7
695	MPA Stockpile 16	confirmatory		soil		Jul-19	67.8	1.9	44	8.0	393	27.3	365	<4.0	2.3
696	MPA Stockpile 16	confirmatory		soil		Jul-19	52.7	1.8	37	7.5	225	23.8	152	<4.0	1.6
697	MPA Stockpile 16	confirmatory		soil		Jul-19	53.4	1.1	39	7.8	276	24.1	217	<4.0	1.5
698	MPA Stockpile 16	confirmatory		soil		Jul-19	58.7	<1.0	45	8.0	246	26.3	232	<4.0	1.1
699	MPA Stockpile 17	confirmatory		soil		Jul-19	62.9	4.1	42	7.7	**873**	27.5	274	<4.0	1.6
700	MPA Stockpile 17	confirmatory	701	soil		Jul-19	85.4	3.0	46	8.6	410	32.8	303	<4.0	1.5
701	MPA Stockpile 17	confirmatory	700	soil		Jul-19	76.8	2.0	41	7.8	**589**	32.8	301	<4.0	1.5
702	MPA Stockpile 17	confirmatory		soil		Jul-19	69.1	1.8	42	7.4	399	27.6	295	<4.0	1.3
703	MPA Stockpile 17	confirmatory		soil		Jul-19	46.1	<1.0	42	7.8	244	24.7	164	<4.0	1.5
704	MPA Stockpile 17	confirmatory		soil		Jul-19	62.0	<1.0	38	7.9	227	23.7	156	<4.0	1.0
705	MPA Stockpile 17	confirmatory		soil		Jul-19	65.4	<1.0	39	8.0	**778**	24.2	145	<4.0	1.0
706	MPA Stockpile 17	confirmatory		soil		Jul-19	49.4	1.1	37	7.7	214	25.2	146	<4.0	<1.0
707	MPA Stockpile 18	confirmatory		soil		Jul-19	81.5	3.1	47	8.1	478	31.2	408	<4.0	3.6
708	MPA Stockpile 18	confirmatory		soil		Jul-19	89.8	2.4	61	8.3	**1863**	29.7	470	<4.0	2.5
709	MPA Stockpile 18	confirmatory		soil		Jul-19	63.3	1.3	46	8.4	288	30.3	208	<4.0	<1.0
710	MPA Stockpile 18	confirmatory	711	soil		Jul-19	82.6	2.1	47	8.3	452	26.1	253	<4.0	1.2
711	MPA Stockpile 18	confirmatory	710	soil		Jul-19	63.4	1.9	45	8.6	**1364**	28.0	229	<4.0	1.0
712	MPA Stockpile 18	confirmatory		soil		Jul-19	59.9	2.1	42	8.2	**807**	29.6	200	<4.0	1.0
713	MPA Stockpile 19	confirmatory		soil		Jul-19	80.6	<1.0	44	9.3	260	30.9	195	<4.0	<1.0
714	MPA Stockpile 19	confirmatory		soil		Jul-19	49.0	<1.0	48	9.4	210	31.0	175	<4.0	1.1
715	MPA Stockpile 19	confirmatory		soil		Jul-19	56.7	<1.0	40	8.5	**1216**	26.4	162	<4.0	<1.0

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total
Soil and Paint CEPA Criteria															*50*
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**
Soil Tier I											200				1
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
716	MPA Stockpile 19	confirmatory		soil		Jul-19	34.8	1.0	37	7.3	240	22.9	189	<4.0	<1.0
717	MPA Stockpile 19	confirmatory		soil		Jul-19	45.3	<1.0	42	8.3	147	27.3	196	<4.0	<1.0
718	MPA Stockpile 20	confirmatory		soil		Jul-19	47.4	<1.0	37	7.3	278	23.4	147	<4.0	<1.0
719	MPA Stockpile 20	confirmatory		soil		Jul-19	64.8	1.2	38	7.7	290	25.0	209	<4.0	<1.0
720	MPA Stockpile 20	confirmatory	721	soil		Jul-19	32.1	<1.0	35	7.1	274	21.9	129	<4.0	<1.0
721	MPA Stockpile 20	confirmatory	720	soil		Jul-19	44.8	<1.0	38	7.3	228	23.9	153	<4.0	<1.0
722	MPA Stockpile 20	confirmatory		soil		Jul-19	56.2	<1.0	41	8.0	191	24.3	143	2.5	<1.0
723	MPA Stockpile 20	confirmatory		soil		Jul-19	48.3	<1.0	37	7.2	160	26.3	127	1.9	<1.0
724	MPA Stockpile 21	confirmatory		soil		Jul-19	42.8	1.0	40	8.0	283	25.3	164	1.5	1.3
725	MPA Stockpile 21	confirmatory		soil		Jul-19	55.4	1.0	44	8.1	249	26.0	345	1.4	<1.0
726	MPA Stockpile 21	confirmatory		soil		Jul-19	9.2	<1.0	<20	<5.0	377	5.9	44	<1.0	<1.0
727	MPA Stockpile 21	confirmatory		soil		Jul-19	**142.0**	<1.0	40	8.3	**632**	25.4	149	1.4	<1.0
728	MPA Stockpile 21	confirmatory		soil		Jul-19	47.1	1.1	43	8.2	199	25.2	174	1.7	<1.0
729	MPA Stockpile 22	confirmatory		soil		Jul-19	47.7	1.3	48	8.2	199	27.5	171	2.3	<1.0
730	MPA Stockpile 22	confirmatory	731	soil		Jul-19	58.3	<1.0	50	8.9	324	29.8	179	1.6	<1.0
731	MPA Stockpile 22	confirmatory	730	soil		Jul-19	38.5	<1.0	41	8.2	179	27.2	155	1.2	<1.0
732	MPA Stockpile 22	confirmatory		soil		Jul-19	53.7	1.2	49	9.5	197	29.7	205	1.6	<1.0
733	MPA Stockpile 22	confirmatory		soil		Jul-19	95.1	<1.0	40	8.3	164	24.8	142	1.6	<1.0
734	MPA Stockpile 22	confirmatory		soil		Jul-19	43.0	<1.0	38	7.9	173	26.8	145	1.4	<1.0
735	MPA Stockpile 23	confirmatory		soil		Jul-19	61.5	<1.0	44	8.6	125	27.9	220	1.4	<1.0
736	MPA Stockpile 23	confirmatory		soil		Jul-19	**150.1**	<1.0	37	7.4	259	21.7	131	<4.0	<1.0
737	MPA Stockpile 23	confirmatory		soil		Jul-19	32.1	<1.0	36	8.3	108	24.5	121	<4.0	<1.0
738	MPA Stockpile 24	confirmatory		soil		Jul-19	54.8	1.1	41	7.6	149	22.8	167	<4.0	<1.0
739	MPA Stockpile 24	confirmatory		soil		Jul-19	36.7	1.1	36	7.9	206	23.7	**859**	<4.0	<1.0
740	MPA Stockpile 24	confirmatory	741	soil		Jul-19	38.4	<1.0	37	8.3	97	24.7	131	<4.0	<1.0
741	MPA Stockpile 24	confirmatory	740	soil		Jul-19	31.6	<1.0	37	8.3	114	24.8	116	<4.0	<1.0
742	MPA Stockpile 24	confirmatory		soil		Jul-20	33.8	<1.0	35	7.8	94	22.2	103	<4.0	<1.0
743	MPA Stockpile 24	confirmatory		soil		Jul-20	45.8	<1.0	36	8.3	250	23.4	143	<4.0	<1.0
744	MPA Stockpile 25	confirmatory		soil		Jul-20	43.8	1.1	37	7.7	240	30.5	145	<4.0	<1.0
745	MPA Stockpile 25	confirmatory		soil		Jul-20	48.3	1.0	41	7.4	269	25.6	157	<4.0	<1.0
746	MPA Stockpile 25	confirmatory		soil		Jul-20	40.9	<1.0	40	7.9	197	25.5	175	<4.0	<1.0
747	MPA Stockpile 25	confirmatory		soil		Jul-20	64.8	<1.0	38	7.8	208	25.9	162	<4.0	<1.0
748	MPA Stockpile 25	confirmatory		soil		Jul-20	46.5	1.0	43	8.2	377	28.2	213	<4.0	1.0
749	MPA Stockpile 26	confirmatory		soil		Jul-20	39.2	1.4	36	7.6	191	24.5	147	<4.0	<1.0
750	MPA Stockpile 26	confirmatory	751	soil		Jul-20	41.7	<1.0	43	8.7	374	26.2	145	<4.0	<1.0
751	MPA Stockpile 26	confirmatory	750	soil		Jul-20	41.9	<1.0	33	7.7	263	23.2	124	<4.0	<1.0
752	MPA Stockpile 26	confirmatory		soil		Jul-20	45.4	1.0	42	8.3	207	26.4	194	<4.0	<1.0
753	MPA Stockpile 26	confirmatory		soil		Jul-20	41.7	1.1	39	8.6	251	26.8	176	<4.0	<1.0
754	MPA Stockpile 26	confirmatory		soil		Jul-20	61.5	1.0	37	8.5	163	26.0	138	<4.0	<1.0
755	MPA Stockpile 27	confirmatory		soil		Jul-20	**206**	<1.0	38	8.4	127	25.1	176	<4.0	<1.0
756	MPA Stockpile 27	confirmatory		soil		Jul-20	41.6	<1.0	39	8.8	167	26.5	127	<4.0	<1.0
757	MPA Stockpile 27	confirmatory		soil		Jul-20	41.7	<1.0	37	8.5	134	23.7	129	<4.0	<1.0
758	MPA Stockpile 27	confirmatory		soil		Jul-20	80.0	1.4	48	10.5	155	29.9	157	<4.0	<1.0
759	MPA Stockpile 27	confirmatory		soil		Jul-20	32.1	<1.0	38	8.7	126	24.5	120	<4.0	<1.0
760	MPA Stockpile 28	confirmatory	761	soil		Jul-20	**336**	1.8	37	7.8	454	24.0	171	<4.0	<1.0
761	MPA Stockpile 28	confirmatory	760	soil		Jul-20	53.2	<1.0	42	9.1	208	27.0	215	<4.0	<1.0
762	MPA Stockpile 28	confirmatory		soil		Jul-20	45.3	<1.0	43	8.7	200	25.9	212	<4.0	<1.0
763	MPA Stockpile 28	confirmatory		soil		Jul-20	33.3	<1.0	38	9.4	97	25.8	107	<4.0	<1.0
764	MPA Stockpile 28	confirmatory		soil		Jul-20	22.8	<1.0	28	6.3	34	18.6	55	<4.0	<1.0
765	MPA Stockpile 28	confirmatory		soil		Jul-20	30.3	<1.0	33	7.5	68	21.2	74	<4.0	<1.0
766	MPA Stockpile 29	confirmatory		soil		Jul-20	40.0	<1.0	32	6.9	125	19.5	111	<4.0	<1.0
767	MPA Stockpile 29	confirmatory		soil		Jul-20	37.8	<1.0	37	7.7	195	22.8	147	<4.0	<1.0
768	MPA Stockpile 29	confirmatory		soil		Jul-20	45.0	1.0	41	8.7	244	25.5	135	<4.0	<1.0
769	MPA Stockpile 29	confirmatory		soil		Jul-20	52.0	<1.0	36	7.7	219	23.4	288	<4.0	<1.0
770	MPA Stockpile 29	confirmatory	771	soil		Jul-20	39.1	<1.0	37	7.8	**589**	22.8	140	<4.0	<1.0
771	MPA Stockpile 29	confirmatory	770	soil		Jul-20	49.5	1.1	44	9.4	212	25.7	173	<4.0	<1.0
772	MPA Stockpile 30	confirmatory		soil		Jul-20	38.4	1.0	44	8.1	326	24.6	154	<4.0	1.5
773	MPA Stockpile 30	confirmatory		soil		Jul-20	41.1	1.0	39	8.1	**507**	25.2	158	<4.0	1.6
774	MPA Stockpile 30	confirmatory		soil		Jul-20	40.6	1.5	39	8.0	297	24.3	161	<4.0	1.0
775	MPA Stockpile 30	confirmatory		soil		Jul-20	36.9	1.5	38	8.5	193	24.5	**1524**	<4.0	1.0
776	MPA Stockpile 30	confirmatory		soil		Jul-20	59.5	<1.0	41	8.6	255	25.6	160	<4.0	1.9
777	MPA Stockpile 31	confirmatory		soil		Jul-20	86.5	<1.0	38	8.9	130	27.2	131	<4.0	1.6
778	MPA Stockpile 31	confirmatory		soil		Jul-20	41.4	<1.0	37	7.6	121	22.3	113	<4.0	<1.0
779	MPA Stockpile 31	confirmatory		soil		Jul-20	36.8	<1.0	36	7.6	95	21.6	102	<4.0	1.2
780	MPA Stockpile 31	confirmatory	781	soil		Jul-20	45.3	<1.0	40	8.3	128	27.9	118	<4.0	1.3
781	MPA Stockpile 31	confirmatory	780	soil		Jul-20	44.9	<1.0	39	7.9	232	23.3	108	<4.0	<1.0
782	MPA Stockpile 31	confirmatory		soil		Jul-20	52.5	<1.0	42	8.3	**1024**	24.5	180	<4.0	1.6
783	MPA Stockpile 32	confirmatory		soil		Jul-20	46.5	<1.0	38	7.2	136	21.1	127	<4.0	1.6
784	MPA Stockpile 32	confirmatory		soil		Jul-20	52.0	<1.0	44	8.4	315	26.4	168	<4.0	3.1
785	MPA Stockpile 32	confirmatory		soil		Jul-20	42.5	1.0	44	8.1	311	25.0	173	<4.0	1.4
786	MPA Stockpile 32	confirmatory		soil		Jul-20	56.4	<1.0	34	6.7	203	21.1	118	<4.0	<1.0
787	MPA Stockpile 32	confirmatory		soil		Jul-20	**2246**	<1.0	40	7.8	175	23.0	137	<4.0	1.1
788	MPA Stockpile 33	confirmatory		soil		Jul-20	40.2	<1.0	38	7.6	136	23.0	135	<4.0	1.3
789	MPA Stockpile 33	confirmatory		soil		Jul-20	52.1	<1.0	41	8.1	341	23.8	153	<4.0	<1.0
790	MPA Stockpile 33	confirmatory	791	soil		Jul-20	48.1	<1.0	40	8.0	177	23.3	179	<4.0	<1.0
791	MPA Stockpile 33	confirmatory	790	soil		Jul-20	40.5	<1.0	37	7.6	145	23.1	142	<4.0	<1.0
792	MPA Stockpile 33	confirmatory		soil		Jul-20	35.0	<1.0	34	7.4	230	20.8	136	<4.0	1.1
793	MPA Stockpile 33	confirmatory		soil		Jul-20	47.4	<1.0	35	7.3	414	19.6	117	<4.0	<1.0
794	MPA Stockpile 34	confirmatory		soil		Jul-20	55.3	4.9	38	8.5	250	25.2	154	<4.0	1.2
795	MPA Stockpile 34	confirmatory		soil		Jul-20	38.2	<1.0	33	7.3	382	21.3	132	<4.0	2.7
796	MPA Stockpile 34	confirmatory		soil		Jul-20	38.3	<1.0	36	7.3	487	21.6	129	<4.0	1.1
797	MPA Stockpile 34	confirmatory		soil		Jul-20	43.1	<1.0	35	7.3	224	21.2	128	<4.0	<1.0
798	MPA Stockpile 34	confirmatory		soil		Jul-20	60.1	<1.0	40	8.0	382	23.6	161	<4.0	<1.0
836	MPA Stockpile 35	confirmatory		soil		Jul-25	34.1	<1.0	31	5.6	162	15.9	16	<4.0	3.1
837	MPA Stockpile 35	confirmatory		soil		Jul-25	49.6	<1.0	36	7.2	141	19.7	20	<4.0	3.2
838	MPA Stockpile 35	confirmatory		soil		Jul-25	67.8	<1.0	46	8.4	172	24.3	24	<4.0	**12.6**
839	MPA Stockpile 35	confirmatory		soil		Jul-25	39.0	<1.0	40	7.5	132	19.9	20	<4.0	3.4
840	MPA Stockpile 35	confirmatory	841	soil		Jul-25	45.4	<1.0	44	8.3	164	23.8	24	<4.0	4.4
841	MPA Stockpile 35	confirmatory	840	soil		Jul-25	40.7	<1.0	66	7.8	**552.7**	21.8	175	<4.0	3.7
842	MPA Stockpile 36	confirmatory		soil		Jul-25	37.6	<1.0	38	7.8	264.4	20.8	115	<4.0	3.1
843	MPA Stockpile 36	confirmatory		soil		Jul-25	39.9	<1.0	46	8.6	**725.8**	24.7	153	<4.0	3.3
844	MPA Stockpile 36	confirmatory		soil		Jul-25	38.0	<1.0	40	8.2	168.6	24.4	139	<4.0	3.5
845	MPA Stockpile 37	confirmatory		soil		Jul-25	34.1	<1.0	36	7.1	144.8	18.3	144	<4.0	4.2
846	MPA Stockpile 37	confirmatory		soil		Jul-25	34.0	<1.0	36	7.2	138.8	20.6	158	<4.0	**5.9**
847	MPA Stockpile 37	confirmatory		soil		Jul-25	57.9	<1.0	48	9.9	**936.4**	27.2	204	<4.0	4.0
848	MPA Stockpile 37	confirmatory		soil		Jul-25	44.0	<1.0	44	8.7	229.1	23.1	200	<4.0	**5.0**
849	MPA Stockpile 37	confirmatory		soil		Jul-25	67.2	<1.0	39	7.6	251.3	20.2	137	<4.0	2.5
850	MPA Stockpile 38	confirmatory	851	soil		Jul-25	39.0	<1.0	46	9.3	145.5	25.5	172	<4.0	2.5
851	MPA Stockpile 38	confirmatory	850	soil		Jul-25	**489.2**	<1.0	47	8.6	**1209.2**	22.3	170	<4.0	3.2
855	MPA Stockpile 38	confirmatory		soil		Jul-25	46.6	<1.0	59	9.4	170.6	25.2	174	<4.0	3.2
856	MPA Stockpile 38	confirmatory		soil		Jul-25	51.6	<1.0	132	9.5	**582.3**	25.0	189	6.6	3.1
857	MPA Stockpile 38	confirmatory		soil		Jul-25	38.5	<1.0	43	8.1	302.9	22.4	189	<4.0	**16.4**
858	MPA Stockpile 38	confirmatory		soil		Jul-25	36.1	<1.0	36	7.3	188.2	20.7	145	<4.0	**5.8***
859	Upper MPA Stockpile 39	confirmatory		soil		Jul-25	46.8	<1.0	44.3	8.5	240.7	27.5	143.3	<4.0	4.8*
860	Upper MPA Stockpile 39	confirmatory	861	soil		Jul-25	26.9	<1.0	33.2	6.4	204.5	18.6	88.3	<4.0	2.3
861	Upper MPA Stockpile 39	confirmatory	860	soil		Jul-25	37.3	<1.0	40.9	7.9	161.0	24.0	132.2	<4.0	2.5
862	Upper MPA Stockpile 39	confirmatory		soil		Jul-25	41.8	3.3	47.8	8.2	296.3	26.3	144.6	<4.0	3.2
863	Upper MPA Stockpile 39	confirmatory		soil		Jul-25	39.1	<1.0	45.0	8.4	266.7	26.0	165.5	<4.0	2.6
864	Upper MPA Stockpile 39	confirmatory		soil		Jul-25	44.5	<1.0	39.6	7.6	159.4	22.9	110.5	<4.0	2.6
865	Upper MPA Stockpile 39	confirmatory		soil		Jul-25	40.7	<1.0	38.2	7.3	215.5	21.3	119.2	<4.0	1.9

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total
Soil and Paint CEPA Criteria															*50*
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**
Soil Tier I											200				1
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
866	Upper MPA Stockpile 40	confirmatory		soil		Jul-25	30.0	<1.0	37.7	7.5	174.1	21.2	130.5	<4.0	1.5
867	Upper MPA Stockpile 40	confirmatory		soil		Jul-25	33.7	<1.0	40.3	8.1	142.8	24.6	113.5	<4.0	3.0
868	Upper MPA Stockpile 40	confirmatory		soil		Jul-25	31.6	**16.1**	38.0	7.7	115.0	22.7	110.5	<4.0	2.3
869	Upper MPA Stockpile 40	confirmatory		soil		Jul-25	44.0	<1.0	44.0	8.7	142.4	28.5	126.2	<4.0	3.1
870	Upper MPA Stockpile 41	confirmatory	871	soil		Jul-25	31.9	<1.0	43.4	8.4	178.3	21.9	129.8	<4.0	<1.0
871	Upper MPA Stockpile 41	confirmatory	870	soil		Jul-25	42.1	1.2	46.0	8.5	325.0	25.7	139.7	<4.0	**5.1**
872	Upper MPA Stockpile 41	confirmatory		soil		Jul-25	34.0	<1.0	39	7.8	128	22.6	132	<4.0	2.5
873	Upper MPA Stockpile 41	confirmatory		soil		Jul-25	45.0	1.1	43	8.6	208	25.6	154	<4.0	3.7
874	Upper MPA Stockpile 41	confirmatory		soil		Jul-25	**142.6**	<1.0	38	7.7	163	22.3	122	<4.0	**5.5**
875	Upper MPA Stockpile 42	confirmatory		soil		Jul-26	34.1	<1.0	38	7.6	140	21.6	107	<4.0	2.0*
876	Upper MPA Stockpile 42	confirmatory		soil		Jul-26	**354.7**	**6.7**	**388**	**81.7**	**1920**	**232.9**	**1339**	16.1	3.0
877	Upper MPA Stockpile 42	confirmatory		soil		Jul-26	35.5	<1.0	39	8.3	164	23.6	157	<4.0	2.6*
878	Upper MPA Stockpile 42	confirmatory		soil		Jul-26	42.4	<1.0	39	8.2	155	22.3	127	<4.0	3.4
879	Upper MPA Stockpile 42	confirmatory		soil		Jul-26	67.2	<1.0	47	9.1	244	26.3	194	<4.0	3.0
880	Upper MPA Stockpile 43	confirmatory	881	soil		Jul-26	59.1	1.1	44	8.9	211	25.6	155	<4.0	3.1
881	Upper MPA Stockpile 43	confirmatory	880	soil		Jul-26	42.4	<1.0	41	8.2	262	24.5	152	<4.0	2.7
882	Upper MPA Stockpile 43	confirmatory		soil		Jul-26	30.2	<1.0	39	8.2	127	22.4	112	<4.0	1.4
883	Upper MPA Stockpile 43	confirmatory		soil		Jul-26	37.4	<1.0	40	8.1	317	23.2	129	<4.0	2.0
884	Upper MPA Stockpile 43	confirmatory		soil		Jul-26	49.7	<1.0	47	9.2	178	26.5	154	<4.0	2.2
885	Upper MPA Stockpile 43	confirmatory		soil		Jul-26	43.9	<1.0	44	9.0	**684**	26.4	219	<4.0	2.1
886	Upper MPA Stockpile 44	confirmatory		soil		Jul-26	**424.5**	**8.3**	**435**	**85.0**	**1800**	**235.4**	**1337**	13.1	2.4
887	Upper MPA Stockpile 44	confirmatory		soil		Jul-26	48.2	<1.0	49	9.0	176	28.0	188	<4.0	2.6
888	Upper MPA Stockpile 44	confirmatory		soil		Jul-26	40.5	<1.0	42	8.9	170	24.5	151	<4.0	3.1
889	Upper MPA Stockpile 44	confirmatory		soil		Jul-26	46.5	<1.0	43	9.1	**561**	25.6	155	<4.0	3.5
890	Upper MPA Stockpile 44	confirmatory	891	soil		Jul-26	43.2	<1.0	41	8.5	475	23.9	152	<4.0	2.1
891	Upper MPA Stockpile 44	confirmatory	890	soil		Jul-26	44.6	<1.0	43	8.4	177	25.0	142	<4.0	1.8
892	Upper MPA Stockpile 45	confirmatory		soil		Jul-26	42.9	<1.0	41	8.7	256	24.5	145	<4.0	2.2
893	Upper MPA Stockpile 45	confirmatory		soil		Jul-26	75.9	<1.0	45	8.4	279	28.4	211	<4.0	2.9*
894	Upper MPA Stockpile 45	confirmatory		soil		Jul-26	**468.0**	**10.9**	**492**	**91.6**	**1829**	**292.6**	**2094**	9.0	3.6
895	Upper MPA Stockpile 45	confirmatory		soil		Jul-26	**157.7**	1.2	38	7.6	**852**	25.4	**750**	<4.0	3.1
896	Upper MPA Stockpile 45	confirmatory		soil		Jul-26	44.5	<1.0	46	8.2	335	27.6	150	<4.0	4.2
897	Upper MPA Stockpile 46	confirmatory		soil		Jul-26	41.3	<1.0	42	8.0	154	24.8	147	<4.0	**7.8**
898	Upper MPA Stockpile 46	confirmatory		soil		Jul-26	39.5	<1.0	44	8.3	190	26.5	146	<4.0	**6.5**
899	Upper MPA Stockpile 46	confirmatory		soil		Jul-26	49.9	1.2	46	8.7	250	28.5	215	<4.0	3.8
900	Upper MPA Stockpile 46	confirmatory	901	soil		Jul-26	42.6	<1.0	42	8.4	247	26.8	177	<4.0	4.2
901	Upper MPA Stockpile 46	confirmatory	900	soil		Jul-26	41.8	<1.0	42	7.7	158	26.4	149	<4.0	3.6
902	Upper MPA Stockpile 46	confirmatory		soil		Jul-26	47.2	<1.0	43	8.4	185	28.2	190	<4.0	3.9*
903	Upper MPA Stockpile 47	confirmatory		soil		Jul-26	41.1	<1.0	44	8.6	130	27.0	140	<4.0	3.2
904	Upper MPA Stockpile 47	confirmatory		soil		Jul-26	40.8	<1.0	44	8.2	188	27.3	178	<4.0	**5.7**
906	Upper MPA Stockpile 47	confirmatory		soil		Jul-26	**138.2**	<1.0	42	7.8	159	25.8	150	<4.0	3.6
907	Upper MPA Stockpile 47	confirmatory		soil		Jul-26	42.7	<1.0	41	7.9	217	24.2	156	<4.0	4.8
908	Upper MPA Stockpile 47	confirmatory		soil		Jul-26	56.0	<1.0	43	8.2	193	24.3	157	<4.0	4.2
909	Upper MPA Stockpile 48	confirmatory		soil		Jul-26	62.2	<1.0	46	8.8	160	26.6	141	<4.0	2.6
910	Upper MPA Stockpile 48	confirmatory	911	soil		Jul-26	**101.8**	<1.0	41	8.3	276	25.7	126	<4.0	3.2
911	Upper MPA Stockpile 48	confirmatory	910	soil		Jul-26	53.5	<1.0	41	8.5	139	25.6	160	<4.0	**7.5**
912	Upper MPA Stockpile 48	confirmatory		soil		Jul-26	42.0	<1.0	43	7.9	207	24.0	152	<4.0	2.9*
913	Upper MPA Stockpile 48	confirmatory		soil		Jul-26	32.5	<1.0	38	7.2	139	22.4	184	<4.0	4.7
914	Upper MPA Stockpile 48	confirmatory		soil		Jul-26	32.9	<1.0	39	7.5	115	23.5	150	<4.0	4.2
915	Upper MPA Stockpile 49	confirmatory		soil		Jul-27	**1362.0**	<1.0	37	7.4	**595**	23.9	152	<4.0	3.2
916	Upper MPA Stockpile 49	confirmatory		soil		Jul-27	37.4	<1.0	41	11.8	308	31.6	135	<4.0	3.7
917	Upper MPA Stockpile 49	confirmatory		soil		Jul-27	38.5	<1.0	36	8.2	204	24.3	149	<4.0	**5.1**
918	Upper MPA Stockpile 49	confirmatory		soil		Jul-27	50.6	<1.0	38	8.1	226	22.3	125	<4.0	3.8
919	Upper MPA Stockpile 49	confirmatory		soil		Jul-27	48.0	<1.0	38	8.0	175	23.9	147	<4.0	3.1
920	Upper MPA Stockpile 50	confirmatory	921	soil		Jul-27	40.3	<1.0	41	8.1	156	25.8	186	<4.0	**5.2**
921	Upper MPA Stockpile 50	confirmatory	920	soil		Jul-27	37.3	<1.0	39	8.2	313	22.4	295	<4.0	<1.0
922	Upper MPA Stockpile 50	confirmatory		soil		Jul-27	44.6	1.5	43	8.4	186	23.9	174	<4.0	<1.0
923	Upper MPA Stockpile 50	confirmatory		soil		Jul-27	34.3	<1.0	37	7.8	161	21.4	160	<4.0	<1.0
924	Upper MPA Stockpile 50	confirmatory		soil		Jul-27	44.9	<1.0	43	8.1	211	23.2	181	<4.0	<1.0
925	Upper MPA Stockpile 50	confirmatory		soil		Jul-27	55.1	<1.0	48	9.5	351	26.0	187	<4.0	<1.0
926	Upper MPA Stockpile 51	confirmatory		soil		Jul-27	42.3	<1.0	45	8.5	190	24.6	187	<4.0	<1.0
927	Upper MPA Stockpile 51	confirmatory		soil		Jul-27	48.5	<1.0	43	8.6	194	25.9	178	<4.0	<1.0
928	Upper MPA Stockpile 51	confirmatory		soil		Jul-27	55.6	<1.0	46	9.2	168	26.1	168	<4.0	<1.0
929	Upper MPA Stockpile 51	confirmatory		soil		Jul-27	43.1	<1.0	49	9.1	222	25.3	188	<4.0	<1.0
930	Upper MPA Stockpile 51	confirmatory	931	soil		Jul-27	58.5	<1.0	42	8.4	234	24.1	178	<4.0	<1.0
931	Upper MPA Stockpile 51	confirmatory	930	soil		Jul-27	59.1	1.0	49	9.6	329	28.8	200	<4.0	<1.0*

* indicates a laboratory duplicate result

Table 15.0: Lobe B Excavation Base Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total
Soil and Paint CEPA Criteria															*50*
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**
Soil Tier I											200				1
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
814	Lobe B excavation base	confirmatory		soil	0	Jul-24	30.5	<1.0	47	8.8	10	24.3	67	2	<1.0
815	Lobe B excavation base	confirmatory		soil	0	Jul-24	29.8	<1.0	34	8	<10	23.6	49	1.3	<1.0
816	Lobe B excavation base	confirmatory		soil	0	Jul-24	35.5	<1.0	38	8.4	18	23	47	1.2	<1.0
817	Lobe B excavation base	confirmatory		soil	0	Jul-24	23.8	<1.0	39	6.8	16	18.9	53	1.4	<1.0
818	Lobe B excavation base	confirmatory		soil	0	Jul-24	29	<1.0	30	7	24	20.2	45	1.7	<1.0
819	Lobe B excavation base	confirmatory		soil	0	Jul-24	32.6	<1.0	39	8.1	126	23.8	128	1.7	<1.0
820	Lobe B excavation base	confirmatory	821	soil	0	Jul-24	24.9	<1.0	37	7.9	132	24	64	1.2	<1.0
821	Lobe B excavation base	confirmatory	820	soil	0	Jul-24	25.2	<1.0	42	8.9	50	26.7	95	1.7	<1.0
822	Lobe B excavation base	confirmatory		soil	0	Jul-24	27	<1.0	34	7.4	60	20.6	64	1.6	<1.0
823	Lobe B excavation base	confirmatory		soil	0	Jul-24	82.3	<1.0	36	8.0	15	22.5	49	<4.0	<1.0
824	Lobe B excavation base	confirmatory		soil	0	Jul-24	39.2	<1.0	40	8.3	333	22.9	157	<4.0	<1.0
825	Lobe B excavation base	confirmatory		soil	0	Jul-24	24.2	<1.0	38	8.4	47	22.3	80	<4.0	<1.0
826	Lobe B excavation base	confirmatory		soil	0	Jul-24	37.8	<1.0	37	7.5	71	21.3	97	<4.0	<1.0
827	Lobe B excavation base	confirmatory		soil	0	Jul-24	23.0	<1.0	37	7.7	12	19.8	50	<4.0	<1.0
828	Lobe B excavation base	confirmatory		soil	0	Jul-24	25.4	<1.0	37	8.0	25	21.5	61	<4.0	<1.0
829	Lobe B excavation base	confirmatory		soil	0	Jul-24	34.9	<1.0	44	10.4	24	31.4	72	<4.0	<1.0
830	Lobe B excavation base	confirmatory	831	soil	0	Jul-24	23.5	<1.0	34	7.2	27	19.2	57	<4.0	<1.0
831	Lobe B excavation base	confirmatory	830	soil	0	Jul-24	24.9	<1.0	37	8.0	27	20.5	69	<4.0	<1.0
832	Lobe B excavation base	confirmatory		soil	0	Jul-24	32.9	<1.0	41	7.9	150	20.5	143	<4.0	1.2
833	Lobe B excavation base	confirmatory		soil	0	Jul-24	27.0	<1.0	32	7.2	17	20.4	62	<4.0	1.1

* indicates a laboratory duplicate result

Table 16.0: Upper Site Material Processing Area Confirmatory Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total
Soil and Paint CEPA Criteria															*50*
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**
Soil Tier I											200				1
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
977	Upper MPA	confirmatory		soil	0	Aug-17	22.8	<1.0	38	7.3	<10	20.7	45	<4.0	<1.0
978	Upper MPA	confirmatory		soil	0	Aug-17	25.8	<1.0	43	7.8	14	21.7	52	<4.0	<1.0
979	Upper MPA	confirmatory		soil	0	Aug-17	19.4	<1.0	35	5.9	17	16.6	38	<4.0	<1.0
980	Upper MPA	confirmatory	981	soil	0	Aug-17	21.7	<1.0	40	6.9	17	20.2	43	<4.0	<1.0
981	Upper MPA	confirmatory	980	soil	0	Aug-17	19.7	<1.0	40	6.7	24	19.5	40	<4.0	<1.0
982	Upper MPA	confirmatory		soil	0	Aug-17	20.4	<1.0	50	7.8	37	23.7	44	<4.0	<1.0
983	Upper MPA	confirmatory		soil	0	Aug-17	21.3	<1.0	38	6.6	16	18.0	41	<4.0	<1.0
984	Upper MPA	confirmatory		soil	0	Aug-17	20.8	<1.0	39	6.5	14	19.3	40	<4.0	<1.0
985	Upper MPA	confirmatory		soil	0	Aug-17	23.7	<1.0	50	8.2	<10	26.0	42	<4.0	<1.0
986	Upper MPA	confirmatory		soil	0	Aug-17	15.4	<1.0	32	5.7	<10	16.1	32	<4.0	<1.0
987	Upper MPA	confirmatory		soil	0	Aug-17	21.9	<1.0	47	8.0	31	22.0	59	<4.0	<1.0
988	Upper MPA	confirmatory		soil	0	Aug-17	16.9	<1.0	37	6.5	127	17.8	41	<4.0	<1.0
989	Upper MPA	confirmatory		soil	0	Aug-17	14.1	<1.0	35	5.8	<10	15.1	37	<4.0	<1.0
990	Upper MPA	confirmatory	991	soil	0	Aug-17	13.3	<1.0	32	5.7	19	15.1	40	<4.0	<1.0
991	Upper MPA	confirmatory	990	soil	0	Aug-17	11.1	<1.0	25	<5.0	11	12.1	40	<4.0	<1.0
992	Upper MPA	confirmatory		soil	0	Aug-17	25.0	<1.0	37	7.0	191	19.3	72	<4.0	<1.0
993	Upper MPA	confirmatory		soil	0	Aug-17	12.0	<1.0	<20	<5.0	24	11.9	25	<4.0	<1.0
994	Upper MPA	confirmatory		soil	0	Aug-17	33.3	<1.0	33	6.6	94	17.3	71	<4.0	1.1

* indicates a laboratory duplicate result

Table 17.0: Module Train Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	PCB Total
Soil and Paint CEPA Criteria							*50*
Soil Tier II							**5**
Soil Tier I							1
Units							**mg/kg**
510	Module Train 1037/RRMC 3	confirmatory	511	soil	10	Jul-02	2.0
511	Module Train 1037/RRMC 3	confirmatory	510	soil	10	Jul-02	2.4
512	Module Train 1037/RRMC 3	confirmatory		soil	10	Jul-02	1.0
513	Module Train 1037/RRMC 3	confirmatory		soil	10	Jul-02	3.2
514	Module Train 1037/RRMC 3	confirmatory		soil	10	Jul-02	<1.0

* indicates a laboratory duplicate result

Table 18.0: Main Landfill Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	PCB Total
Soil and Paint CEPA Criteria							*50*
Soil Tier II							**5**
Soil Tier I							1
Units							**mg/kg**
543	Main Landfill Tier I area	delineation		soil	0	Jul-08	1.8
544	Main Landfill Tier I area	delineation		soil	0	Jul-08	3.2
545	Main Landfill Tier I area	delineation		soil	0	Jul-08	3.1
546	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
547	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
548	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
549	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
550	Main Landfill Tier I area	delineation	551	soil	0	Jul-08	<1.0
551	Main Landfill Tier I area	delineation	550	soil	0	Jul-08	<1.0*
552	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
553	Main Landfill Tier I area	delineation		soil	0	Jul-08	1.9
554	Main Landfill Tier I area	delineation		soil	0	Jul-08	2.2
555	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
556	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
557	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
558	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
559	Main Landfill Tier I area	delineation		soil	0	Jul-08	1.1
560	Main Landfill Tier I area	delineation	561	soil	0	Jul-08	<1.0*
561	Main Landfill Tier I area	delineation	560	soil	0	Jul-08	<1.0
562	Main Landfill Tier I area	delineation		soil	0	Jul-08	1.9
563	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0
564	Main Landfill Tier I area	delineation		soil	0	Jul-08	<1.0

* indicates a laboratory duplicate result

Table 19.0: Garage Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total
Soil and Paint CEPA Criteria															*50*
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**
Soil Tier I											200				1
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
501	Garage RRMC 21	confirmatory	no dup	soil	20	Jul-02	<40				<40		<50		<1.0
502	Garage RRMC 21	confirmatory		soil	20	Jul-02	<40				<40		66.8		**23.9**
503	Garage RRMC 21	confirmatory		soil	20	Jul-02	<40				<40		63.4		4.9
504	Garage RRMC 21	confirmatory		soil	20	Jul-02	<40				<40		62.4		1.0
505	Garage RRMC 21	confirmatory		soil	50	Jul-02	<40				<40		<50		1.0
506	Garage RRMC 21	confirmatory		soil	50	Jul-02	<40				42.1		66.3		4.2
507	Garage RRMC 21	confirmatory		soil	20	Jul-02	44.6				43.0		87.9		**5.4**
508	Garage RRMC 21	confirmatory		soil	20	Jul-02	<40				<40		61.4		1.9
509	Garage RRMC 21	confirmatory		soil	20	Jul-02	<40				<40		60.0		2.0
572	Garage RRMC 21	confirmatory-round 2		soil	10-30	Jul-11									<1.0
573	Garage RRMC 21	confirmatory-round 2		soil	10-30	Jul-11									<1.0
574	Garage RRMC 21	confirmatory-round 2		soil	10-30	Jul-11									<1.0
575	Garage RRMC 21	confirmatory-round 2		soil	10-30	Jul-11									1.1
576	Garage RRMC 21	confirmatory-round 2		soil	10-30	Jul-11									<1.0
577	Garage RRMC 21	confirmatory-round 2		soil	50	Jul-11									2.6
578	Garage RRMC 21	confirmatory-round 2		soil	10-30	Jul-11									<1.0
579	Garage RRMC 21	confirmatory-round 2		soil	30-40	Jul-11									1.1
580	Garage RRMC 21	confirmatory-round 2	581	soil	50	Jul-11									**5.5**
581	Garage RRMC 21	confirmatory-round 2	580	soil	50	Jul-11									**12.2**
905	Garage RRMC 21	confirmatory-round 3		soil	base	Jul-26									<1.0

* indicates a laboratory duplicate result

Table 20.0: Quonset Hut Results

Sample #	Area	Sampling Program	Field Dup TN	Sample Matrix	Depth (cm)	Date Collected	Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total
Soil and Paint CEPA Criteria															*50*
Soil Tier II							**100**	**5**	**250**	**50**	**500**	**100**	**500**	**30**	**5**
Soil Tier I											200				1
Units							**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
809	Quonset Hut Debris Pile	assessment		soil	0	Jul-24	24.1	<1.0	43	9.9	12	25.6	58	1.8	
810	Quonset Hut Debris Pile	assessment	811	soil	0	Jul-24	20.8	<1.0	35	8.2	24	19	52	2.3	
811	Quonset Hut Debris Pile	assessment	810	soil	0	Jul-24	19.9	<1.0	34	8.2	16	19.6	52	2.7	
812	Quonset Hut Debris Pile	assessment		soil	0	Jul-24	16.9	<1.0	31	7.2	11	18.7	37	1.6	
813	Quonset Hut Debris Pile	assessment		soil	0	Jul-24	27.6	<1.0	37	9.2	72	21.8	72	1.3	
965	Quonset Hut BD6	confirmatory		soil	0	Jul-29	19.2				16		65		
966	Quonset Hut BD6	confirmatory		soil	0	Jul-29	20.3				<10		40		
967	Quonset Hut BD6	confirmatory		soil	0	Jul-29	23.1				27		49		
968	Quonset Hut BD6	confirmatory		soil	0	Jul-29	20.8				34		58		
969	Quonset Hut BD6	confirmatory		soil	0	Jul-29	36.1				20		88		
970	Quonset Hut BD6	confirmatory	971	soil	0	Jul-29	53.8				**773**		134		
971	Quonset Hut BD6	confirmatory	970	soil	0	Jul-29	44.1				221		119		
972	Quonset Hut BD6	confirmatory		soil	0	Jul-29	20.5				335		59		
973	Quonset Hut BD6	confirmatory		soil	0	Jul-29	18.0				<10		39		
974	Quonset Hut BD6	confirmatory		soil	0	Jul-29	28.8				126		146		
975	Quonset Hut BD6	confirmatory		soil	0	Jul-29	24.7				48		96		

* indicates a laboratory duplicate result

Table 21.0: QA/QC Soil Results

Parameter		Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total	F1 Reported	F2 Reported	F3 Reported	F4 Reported
Method Detection Limit		5	1	20	5	10	5	15	4	1	10 (60)	10	10	10
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Sample	Area													
510	Module Train 1037/RRMC 3									2.0				
511	Module Train 1037/RRMC 3									2.4				
	RPD									18				
530	MPA	9.3	<1.0	<20	<5.0	<10	5.7	16	<4.0					
531	MPA	9.6	<1.0	<20	<5.0	<10	6.1	18	<4.0					
	RPD	3	0	0	0	0	8	9	0					
540	MPA	13.8	<1.0	26	<5.0	<10	9.7	26	<4.0					
541	MPA	13.5	<1.0	25	<5.0	<10	9.4	25	<4.0					
	RPD	2	0	2	0	0	3	3	0					
550	Main Landfill Tier I area									<1.0				
551	Main Landfill Tier I area									<1.0				
	RPD									0				
560	Main Landfill Tier I area									<1.0				
561	Main Landfill Tier I area									<1.0				
	RPD									0				
580	Garage RRMC 21									5.5				
581	Garage RRMC 21									12.2				
	RPD									**76**				
610	MPA Stockpile 2	154	4.6	55	7.7	1704	33.3	655	<4.0	7.2				
611	MPA Stockpile 2	157	3.8	57	7.6	937	32.1	566	<4.0	16				
	RPD	1	18	3	1	**58**	4	15	0	**76**				
620	MPA Stockpile 8	192	4.7	67	9.6	1056	48.3	602	<4.0	9.7				
621	MPA Stockpile 8	103	3.8	57	8.9	4830	39.3	509	6.0	12				
	RPD	**60**	22	17	8	**128**	21	17	**41**	21				
630	MPA Stockpile 4	152	5.2	59	9.3	660	37.6	527	<4.0	5.0				
631	MPA Stockpile 4	110	3.7	53	9.2	519	37.6	447	<4.0	6.6				
	RPD	32	33	10	1	24	0	16	0	28				
640	MPA Stockpile 6	126	5.0	49	8.3	4109	31.3	539	<4.0	20.5				
641	MPA Stockpile 6	147	4.7	50	8.0	1600	33.2	479	<4.0	28.1				
	RPD	15	7	2	3	**88**	6	12	0	31				
650	MPA Stockpile 9	102	3.6	54	7.8	1600	32.9	443	<4.0	8.6				
651	MPA Stockpile 9	224	3.9	1804	21.6	1172	981	420	<4.0	6.7				
	RPD	**75**	9	**188**	**94**	31	**187**	5	0	25				
660	MPA Stockpile 11	126	3.3	52	8.6	957	32.5	506	<4.0	13.1				
661	MPA Stockpile 11	172	3.2	59	8.9	1040	35.1	534	<4.0	9.5				
	RPD	31	5	12	3	8	8	5	0	32				
670	MPA Stockpile 13	169	3.5	56	8.7	522	34.9	471	<4.0	4.7				
671	MPA Stockpile 13	111	4.8	56	9.1	1285	36.5	897	<4.0	5.3				
	RPD	**41**	33	1	4	**84**	4	**62**	0	12				
680	MPA Stockpile 14	74	<1.0	42	8.4	142	26.8	128	<4.0	<1.0				
681	MPA Stockpile 14	37	<1.0	38	7.9	123	26.7	106	<4.0	<1.0				
	RPD	**67**	0	10	6	14	0	19	0	0				
690	MPA Stockpile 15	37	1.5	41	7.6	207	22.8	153	<4.0	<1.0				
691	MPA Stockpile 15	38	<1.0	43	7.9	182	24.4	181	<4.0	<1.0				

Parameter		Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total	F1 Reported	F2 Reported	F3 Reported	F4 Reported
Method Detection Limit		5	1	20	5	10	5	15	4	1	10 (60)	10	10	10
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	RPD	3	**40**	5	4	13	7	17	0	0				
700	MPA Stockpile 17	85	3.0	46	8.6	410	32.8	303	<4.0	1.5				
701	MPA Stockpile 17	77	2.0	41	7.8	589	32.8	301	<4.0	1.5				
	RPD	11	**41**	13	10	**36**	0	1	0	0				
710	MPA Stockpile 18	83	2.1	47	8.3	452	26.1	253	<4.0	1.2				
711	MPA Stockpile 18	63	1.9	45	8.6	1364	28.0	229	<4.0	1.0				
	RPD	26	10	5	3	**100**	7	10	0	18				
720	MPA Stockpile 20	32	<1.0	35	7.1	274	21.9	129	<4.0	<1.0				
721	MPA Stockpile 20	45	<1.0	38	7.3	228	23.9	153	<4.0	<1.0				
	RPD	33	0	9	4	18	9	17	0	0				
730	MPA Stockpile 22	58	<1.0	50	8.9	324	29.8	179	1.6	<1.0				
731	MPA Stockpile 22	38	<1.0	41	8.2	179	27.2	155	1.2	<1.0				
	RPD	**41**	0	20	8	**58**	9	14	26	0				
740	MPA Stockpile 24	38	<1.0	37	8.3	97	24.7	131	<4.0	<1.0				
741	MPA Stockpile 24	32	<1.0	37	8.3	114	24.8	116	<4.0	<1.0				
	RPD	19	0	1	1	16	0	12	0	0				
750	MPA Stockpile 26	42	<1.0	43	8.7	374	26.2	145	<4.0	<1.0				
751	MPA Stockpile 26	42	<1.0	33	7.7	263	23.2	124	<4.0	<1.0				
	RPD	0	0	27	12	**35**	12	15	0	0				
760	MPA Stockpile 28	336	1.8	37	7.8	454	24.0	171	<4.0	<1.0				
761	MPA Stockpile 28	53	<1.0	42	9.1	208	27.0	215	<4.0	<1.0				
	RPD	**145**	**58**	13	15	**74**	12	23	0	0				
770	MPA Stockpile 29	39	<1.0	37	7.8	589	22.8	140	<4.0	<1.0				
771	MPA Stockpile 29	49	1.1	44	9.4	212	25.7	173	<4.0	<1.0				
	RPD	23	0	19	19	**94**	12	21	0	0				
780	MPA Stockpile 31	45	<1.0	40	8.3	128	27.9	118	<4.0	1.3				
781	MPA Stockpile 31	45	<1.0	39	7.9	232	23.3	108	<4.0	<1.0				
	RPD	1	0	3	6	**57**	18	9	0	26				
790	MPA Stockpile 33	48	<1.0	40	8.0	177	23.3	179	<4.0	<1.0				
791	MPA Stockpile 33	41	<1.0	37	7.6	145	23.1	142	<4.0	<1.0				
	RPD	17	0	7	5	20	1	23	0	0				
810	Quonset Hut Debris Pile	20.8	<1.0	35	8.2	24	19	52	2.3					
811	Quonset Hut Debris Pile	19.9	<1.0	34	8.2	16	19.6	52	2.7					
	RPD	4	0	3	0	**40**	3	0	16					
820	Lobe B excavation base	24.9	<1.0	37	7.9	132	24	64	1.2	<1.0				
821	Lobe B excavation base	25.2	<1.0	42	8.9	50	26.7	95	1.7	<1.0				
	RPD	1	0	13	12	**90**	11	**39**	34	0				
830	Lobe B excavation base	23.5	<1.0	34	7.2	27	19.2	57	<4.0	<1.0				
831	Lobe B excavation base	24.9	<1.0	37	8.0	27	20.5	69	<4.0	<1.0				
	RPD	5	0	8	10	2	7	20	0	0				
840	MPA Stockpile 35	45	<1.0	44	8.3	164	23.8	24	<4.0	4.4				
841	MPA Stockpile 35	41	<1.0	66	7.8	553	21.8	175	<4.0	3.7				
	RPD	11	0	**41**	6	**108**	9	**152**	0	17				
850	MPA Stockpile 38	39	<1.0	46	9.3	145	25.5	172	<4.0	2.5				
851	MPA Stockpile 38	489	<1.0	47	8.6	1209	22.3	170	<4.0	3.2				
	RPD	**170**	0	2	8	**157**	14	1	0	25				
940	River Debris Area	11.8	<1.0	22	<5.0	35	7.5	51	<4.0	<1.0				

Parameter		Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total	F1 Reported	F2 Reported	F3 Reported	F4 Reported
Method Detection Limit		5	1	20	5	10	5	15	4	1	10 (60)	10	10	10
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
941	River Debris Area	11.0	<1.0	21	<5.0	35	7.3	52	<4.0	<1.0				
	RPD	7	0	3	0	0	3	3	0	0				
960	Beach POL										<60	197	<10	<10
961	Beach POL										<60	<10	<10	<10
	RPD										0	**190**	0	0
970	Quonset Hut BD6	53.8				773		134						
971	Quonset Hut BD6	44.1				221		119						
	RPD	20				**111**		12						
980	Upper MPA	22	<1.0	40	6.9	17	20.2	43.4	<4.0	<1.0				
981	Upper MPA	20	<1.0	40	6.7	24	19.5	40.1	<4.0	<1.0				
	RPD	9	0	1	4	34	4	8	0	0				
990	Upper MPA	13	<1.0	32	5.7	19	15.1	39.9	<4.0	<1.0				
991	Upper MPA	11	<1.0	25	<5.0	11	12.1	39.8	<4.0	<1.0				
	RPD	18	0	25	13	**53**	22	0	0	0				
1010	Water Lake Landfarm										<10	458	<10	<10
1011	Water Lake Landfarm										<10	326	<10	<10
	RPD										0	34	0	0
1020	Water Lake Landfarm										<10	1004	<10	<10
1021	Water Lake Landfarm										<10	756	<10	<10
	RPD										0	28	0	0
1060	Landfarm										<60	72	<10	<10
1061	Landfarm										<60	78	<10	<10
	RPD										0	8	0	0
1080	Landfarm										16	780	63	<10
1081	Landfarm										16	580	45	<10
	RPD										0	29	33	0
1090	Landfarm										91	890	110	<10
1091	Landfarm										27	1000	53	<10
	RPD										**108**	12	**70**	0
1100	Water Lake Landfarm										<10	45	<10	<10
1101	Water Lake Landfarm										<10	34	<10	<10
	RPD										0	28	0	0
1120	Water Lake Landfarm										<10	190	<10	<10
1121	Water Lake Landfarm										11	150	<10	<10
	RPD										10	24	0	0
1130	Water Lake Landfarm										39	700	45	<10
1131	Water Lake Landfarm										59	750	53	<10
	RPD										41	7	16	0

Parameter		Cu	Cd	Cr	Co	Pb	Ni	Zn	As	PCB Total	F1 Reported	F2 Reported	F3 Reported	F4 Reported
Method Detection Limit		5	1	20	5	10	5	15	4	1	10 (60)	10	10	10
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1140	Water Lake Landfarm										<10	15	96	<10
1141	Water Lake Landfarm										11	10	43	<10
	RPD										10	40	**76**	0
1180	Non-Haz Landfill	13.7	<1.0	28	<5.0	<10	9.0	24	<4.0	<1.0	<60	28	61	<10
1181	Non-Haz Landfill	13.7	<1.0	26	<5.0	<10	9.1	23	<4.0	<1.0	<60	18	<10	<10
	RPD	0	0	5	0	0	2	4	0	0	0	45	**143**	0
1190	Landfarm										15	790	115	<10
1191	Landfarm										11	690	68	<10
	RPD										31	14	**51**	0
1210	MPA	15.4	<1.0	<20	<5.0	32	16.0	39	<4.0	<1.0				
1211	MPA	15.4	<1.0	<20	<5.0	45	8.9	37	<4.0	<1.0				
	RPD	0	0	0	0	35	**57**	3	0	0				
1220	MPA	33.9	<1.0	20	<5.0	<10	8.4	24	<4.0	<1.0				
1221	MPA	16.3	<1.0	25	<5.0	<10	9.9	28	<4.0	<1.0				
	RPD	**70**	0	22	0	0	16	15	0	0				
1230	MPA	13.5	<1.0	23	<5.0	<10	9.4	26	<4.0	<1.0				
1231	MPA	19.4	<1.0	31	6.6	<10	16.2	37	<4.0	<1.0				
	RPD	**36**	0	29	28	0	**53**	**35**	0	0				
1240	BPA	38.1	<1.0	86	17.4	<10	40.1	98	<4.0	<1.0	<10	<10	<10	<10
1241	BPA	29.7	<1.0	83	16.0	10	38.3	89	<4.0	<1.0	<10	<10	<10	<10
	RPD	25	0	4	9	0	5	10	0	0	0	0	0	0
1250	BPA	17.2	<1.0	26	5.7	<10	14.0	29	<4.0	<1.0	<10	<10	<10	<10
1251	BPA	15.3	<1.0	23	5.2	<10	12.6	26	<4.0	<1.0	<10	<10	<10	<10
	RPD	12	0	10	10	0	10	9	0	0	0	0	0	0
1260	MPA	<40												
1261	MPA	<40												
	RPD	0												
	Average RPD for the Site	28	8	15	9	**44**	15	18	3	12	15	35	30	0

Underlined values indicate the concentrations are <10x the method detection limit and the calculated RPD values are not strictly valid.
Bolded values indicate the RPD exceeds the recommended alert criteria.
* indicates a laboratory duplicate result

Table 22.0: QA/QC Barrel Results

Parameter		Glycol	Cd	Cr	Pb	TOX (as Cl)	PCBs (total)	Flashpoint
Method Detection Limit		5	1	1	1	2	1	n/a
Units		ppm	ppm	ppm	ppm	ppm	ppm	°C
Sample	Area							
1030	BPA barrel sample						5	81
1031	BPA barrel sample						3	>99
	RPD						**<u>50</u>**	21

<u>Underlined</u> values indicate the concentrations are <10x the method detection limit and the calculated RPD values are not strictly valid.
Bolded values indicate the RPD exceeds the recommended alert criteria.
* indicates a laboratory duplicate result

Table 23.0: QA/QC Water Results

Parameter		pH	Oil & Grease	As (total)	Zn (total)	Hg (total)	Cd (diss)	Cr (diss)	Co (diss)	Cu (diss)	Pb (diss)	Ni (diss)	Phenols	PCBs (total)	Total Glycol
Method Detection Limit		n/a	2	0.003	0.02		0.001	0.005	0.003	0.005	0.01	0.005	1		2
Units			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Sample	Area														
800	BPA-FP 6		3.3		0.169										
801	BPA-FP 6		3.2		0.188										
	RPD		3		11										
1170	Flower Pot 7	7.41	<2.0	<0.003	0.024	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.013	15.4	<0.003	<2
1171	Flower Pot 7	7.40	<2.0	<0.003	0.036	<0.05	<0.001	<0.005	<0.003	<0.005	<0.010	0.006	18.5	<0.003	<2
	RPD	0	0	0	**38**	0	0	0	0	0	0	**67**	18	0	0

Underlined values indicate the concentrations are <10x the method detection limit and the calculated RPD values are not strictly valid.

Bolded values indicate the RPD exceeds the recommended alert criteria.

* indicates a laboratory duplicate result