Table FH-21-3. Firehall Remediation Confirmation Soil Samples - Polycyclic Aromatic Hydrocarbons (PAHs)

	Polaris Mine Soil Quality Remediation Objectives[a]	Location Sample ID Date Sampled ALS File Number Field Screen (ppm)[b]	Firehall			
			FH-104-F-D 05-Aug-03 T2589 -	FH-11016-W-C 01-Jun-04 U4137 55	FH-11126-F-C 01-Jun-04 U4137 60	FH-11347-F-C 09-Jun-04 U4484 50
Parameter	**CEQG (PL)[c]**	**Units**	**Analytical Results**			
Polycyclic Aromatic Hydrocarbons						
Acenaphthene		mg/kg	<0.04	<0.04	<0.04	<0.04
Acenaphthylene		mg/kg	<0.05	<0.05	<0.05	<0.05
Anthracene	-	mg/kg	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	1[d]	mg/kg	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	0.7	mg/kg	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	1[d]	mg/kg	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,I)perylene	-	mg/kg	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	1[d]	mg/kg	<0.05	<0.05	<0.05	<0.05
Chrysene	-	mg/kg	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	1[d]	mg/kg	<0.05	<0.05	<0.05	<0.05
Fluoranthene	-	mg/kg	<0.05	<0.05	<0.05	<0.05
Fluorene	-	mg/kg	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3,-c,d)pyrene	1[d]	mg/kg	<0.05	<0.05	<0.05	<0.05
Napthalene	0.6	mg/kg	0.07	<0.05	<0.05	<0.2
Phenanthrene	5[d]	mg/kg	<0.05	<0.05	<0.05	<0.05
Pyrene	10[d]	mg/kg	<0.05	<0.05	<0.05	<0.05

Bold *Concentration greater than or equal to the Soil Quality Remediation Objective (SQRO) for the Polaris Mine Site.*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) The Soil Quality Remediation Objectives (SQROs) for the Polaris Mine Site are based on Canadian Council of Ministers of the Environment (CCME) standards and guidelines. The CCME provides criteria based on land use activities and applies the most strigent criteria based on site-specific receptors and exposure pathways.

b) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

c) Canadian Environmental Quality Guidelines (CEQG) for Parkland (PL) Land Use. The site-specific factors used for determining the soil quality guidelines were: soil ingestion, soil contact and nutrient cycling.

d) Interim Remediation Criterion. Soil Quality Guidelines based on the CCME soil protocol have not yet been developed for a given parameter.

Table FH-21-4. Firehall Quality Assurance and Quality Control Remediation Soil Samples - Hydrocarbons

				Location	Firehall							
				Sample ID	FH-11017-W-C	FH-11123-F-C	FH-11126-F-C	FH-11344-W-C	FH-11349-F-C	FH-11738-W-C	FH-11764-F-C	FH-11764-F-C
				Duplicate ID	QC# 389244	QC# 389245	FH-10472-W-Q	FH-11370-W-Q	QC# 390735	QC# 392657	FH-11765-F-Q	QC# 395247
Parameter	**Units**	**MDL**	**PQL**		**Analytical Results**							
Analytical Laboratory Duplicates												
EPH C_{10}-C_{19}												
Sample Result	mg/kg	200	1000		-	-	<200	370	-	-	<200	<200
Duplicate Result	mg/kg	200	1000		-	-	<200	770	-	-	<200	250
RpD	**%**						na	na			na	na
EPH C_{19}-C_{32}												
Sample Result	mg/kg	200	1000		-	-	<200	<200	-	-	320	320
Duplicate Result	mg/kg	200	1000		-	-	<200	<200	-	-	390	450
RpD	**%**						na	na			na	na
Analytical Laboratory Replicates												
EPH C_{10}-C_{19}												
Sample Result	mg/kg	200	1000		<200	1460	-	-	270	<200	-	-
Duplicate Result	mg/kg	200	1000		<200	1890	-	-	270	<200	-	-
RpD	**%**				na	**26%**			na	na		
EPH C_{19}-C_{32}												
Sample Result	mg/kg	200	1000		<200	520	-	-	<200	<200	-	-
Duplicate Result	mg/kg	200	1000		<200	460	-	-	<200	<200	-	-
RpD	**%**				na	na			na	na		

Bold *RpD Value is greater than or equal to 50% and the concentrations of both samples are greater than the PQL.*

Notes:

na RpD value is not applicable because one or both results are less than the PQL.

*RpD Relative Percent Difference = (Difference/Average)*100.*

*PQL Practical Quantitation Limit = 5 * Method Detection Limit (MDL).*

MDL Method Detection Limit of analysis.

Table FH-21-5. Firehall Quality Assurance and Quality Control Remediation Soil Samples - Metals

				Location	Firehall								
				Sample ID	FH-BH-2-4-C	FH-BH-2-7-C	FH-BH-5-3-C	FH-BH-7-4-C	FH-BH-8-8-C	FH-BH-9-2-C	FH-BH-10-1-C	FH-BH-11-4-C	FH-BH-12-2-C
				Duplicate ID	FH-BH-2-4-Q	FH-BH-2-9-Q	FH-BH-5-10-Q	FH-BH-7-10-Q	FH-BH-8-11-Q	FH-BH-9-8-Q	FH-BH-10-9-Q	FH-BH-11-8-Q	FH-BH-12-10-Q
Parameter	**Units**	**MDL**	**PQL**		**Analytical Results**								
On Site Field Screening Duplicates													
Lead (Pb)					na								
Sample Result	mg/kg	70	350		152	20	20	20	485	2419	1450	40	54
Duplicate Result	mg/kg	70	350		121	20	20	32	418	2109	1829	51	80
RpD	**%**				**na**	**na**	**na**	**na**	**15%**	**14%**	**23%**	**na**	**na**
Zinc (Zn)													
Sample Result	mg/kg	150	750		411	60	60	610	3120	13299	5459	431	287
Duplicate Result	mg/kg	150	750		418	225	60	598	3328	12800	6349	171	303
RpD	**%**				**na**	**na**	**na**	**na**	**6%**	**4%**	**15%**	**na**	**na**
Analytical Laboratory Duplicates													
Lead (Pb)													
Sample Result	mg/kg	100	500		-	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	100	500		-	-	-	-	-	-	-	-	-
RpD	**%**												
Zinc (Zn)													
Sample Result	mg/kg	2	10		-	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	2	10		-	-	-	-	-	-	-	-	-
RpD	**%**												
Analytical Laboratory Replicates													
Lead (Pb)													
Sample Result	mg/kg	100	500		-	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	100	500		-	-	-	-	-	-	-	-	-
RpD	**%**												
Zinc (Zn)													
Sample Result	mg/kg	3	15		-	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	3	15		-	-	-	-	-	-	-	-	-
RpD	**%**												

Bold *RpD Value is greater than or equal to 50% and the concentrations of both samples are greater than the PQL.*

Notes:

na RpD value is not applicable because one or both results are less than the PQL.

*RpD Relative Percent Difference = (Difference/Average)*100.*

*PQL Practical Quantitation Limit = 5 * Method Detection Limit (MDL).*

MDL Method Detection Limit of analysis.

Table FH-21-5. Firehall Quality Assurance and Quality Control Remediation Soil Samples - Metals

				Location	Firehall								
				Sample ID	FH-BH-13-2-C	FH-BH-14-6-C	FH-BH-15-1-C	FH-BH-15-3-C	FH-BH-18-3-C	FH-BH-18-7-C	FH-59-W-D	FH-97-F-C	FH-105-F-C
				Duplicate ID	FH-BH-13-6-Q	FH-BH-14-7-Q	FH-BH-15-7-Q	FH-BH-15-8-Q	FH-BH-18-8-Q	FH-BH-18-9-Q	FH-165-W-Q	FH-98-F-Q	FH-105-F-Q
Parameter	**Units**	**MDL**	**PQL**		**Analytical Results**								
On Site Field Screening Duplicates													
Lead (Pb)													
Sample Result	mg/kg	70	350		1160	67	374	2680	40	130	6860	285	270
Duplicate Result	mg/kg	70	350		994	53	287	2290	34	108	6264	318	272
RpD	**%**				**15%**	**na**	**na**	**16%**	**na**	**na**	**9%**	**na**	**na**
Zinc (Zn)													
Sample Result	mg/kg	150	750		6829	225	1550	27699	404	577	37016	1764	1467
Duplicate Result	mg/kg	150	750		5978	214	1160	25498	347	465	37923	1102	1396
RpD	**%**				**13%**	**na**	**29%**	**8%**	**na**	**na**	**2%**	**46%**	**5%**
Analytical Laboratory Duplicates													
Lead (Pb)													
Sample Result	mg/kg	100	500		-	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	100	500		-	-	-	-	-	-	-	-	-
RpD	**%**												
Zinc (Zn)													
Sample Result	mg/kg	2	10		-	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	2	10		-	-	-	-	-	-	-	-	-
RpD	**%**												
Analytical Laboratory Replicates													
Lead (Pb)													
Sample Result	mg/kg	100	500		-	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	100	500		-	-	-	-	-	-	-	-	-
RpD	**%**												
Zinc (Zn)													
Sample Result	mg/kg	3	15		-	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	3	15		-	-	-	-	-	-	-	-	-
RpD	**%**												

Bold *RpD Value is greater than or equal to 50% and the concentrations of both samples are greater than the PQL.*

Notes:

na RpD value is not applicable because one or both results are less than the PQL.

*RpD Relative Percent Difference = (Difference/Average)*100.*

*PQL Practical Quantitation Limit = 5 * Method Detection Limit (MDL).*

MDL Method Detection Limit of analysis.

Table FH-21-5. Firehall Quality Assurance and Quality Control Remediation Soil Samples - Metals

				Location	Firehall								
				Sample ID	FH-110-W-D	FH-111-W-C	FH-135-W-D	FH-145-W-D	FH-158-F-D	FH-11126-F-C	FH-11344-W-C	FH-11764-F-C	FH-11764-F-C
				Duplicate ID	FH-110-W-Q	QC# 350292	FH-139-W-Q	FH-148-W-Q	FH-158-F-Q	FH-10472-W-Q	FH-11370-W-Q	FH-11765-F-Q	QC# 395247
Parameter	**Units**	**MDL**	**PQL**		**Analytical Results**								
On Site Field Screening Duplicates													
Lead (Pb)													
Sample Result	mg/kg	70	350		204	199	12790	11203	55	-	-	-	-
Duplicate Result	mg/kg	70	350		190	195	13627	7220	65	-	-	-	-
RpD	**%**				na	na	**6%**	**43%**	na				
Zinc (Zn)													
Sample Result	mg/kg	150	750		593	513	72354	72692	304	-	-	-	-
Duplicate Result	mg/kg	150	750		603	455	61522	54744	684	-	-	-	-
RpD	**%**				na	na	**16%**	**28%**	na				
Analytical Laboratory Duplicates													
Lead (Pb)													
Sample Result	mg/kg	100	500		-	-	-	-	-	150	250	140	-
Duplicate Result	mg/kg	100	500		-	-	-	-	-	180	240	120	-
RpD	**%**									**18%**	**4%**	**15%**	
Zinc (Zn)													
Sample Result	mg/kg	2	10		-	-	-	-	-	474	923	386	-
Duplicate Result	mg/kg	2	10		-	-	-	-	-	1610	917	280	-
RpD	**%**									**109%**	**1%**	**32%**	
Analytical Laboratory Replicates													
Lead (Pb)													
Sample Result	mg/kg	100	500		-	<200	-	-	-	-	-	-	140
Duplicate Result	mg/kg	100	500		-	232	-	-	-	-	-	-	120
RpD	**%**					na							**15%**
Zinc (Zn)													
Sample Result	mg/kg	3	15		-	791	-	-	-	-	-	-	386
Duplicate Result	mg/kg	3	15		-	1720	-	-	-	-	-	-	342
RpD	**%**					**74%**							**12%**

Bold *RpD Value is greater than or equal to 50% and the concentrations of both samples are greater than the PQL*

Notes:

na RpD value is not applicable because one or both results are less than the PQL..

*RpD Relative Percent Difference = (Difference/Average)*100.*

*PQL Practical Quantitation Limit = 5 * Method Detection Limit (MDL).*

MDL Method Detection Limit of analysis.

Table FH-21-5. Firehall Quality Assurance and Quality Control Remediation Soil Samples - Metals

			Location	Firehall							
			Sample ID	FH-11017-W-C	FH-11123-F-C	FH-11349-F-C	FH-11726-F-D	FH-11668-F-C	FH-11691-W-D	FH-11580-F-D	FH-11738-W-C
			Duplicate ID	QC# 389244	QC# 389245	QC# 390735	FH-11711-F-Q	FH-11716-F-Q	FH-11718-W-Q	FH-11720-F-Q	QC# 392657
Parameter	**Units**	**MDL**	**PQL**	**Analytical Results**							
On Site Field Screening Duplicates											
Lead (Pb)											
Sample Result	mg/kg	70	350	-	-	-	45	57	37	24	-
Duplicate Result	mg/kg	70	350	-	-	-	25	77	55	30	-
RpD	**%**						**na**	**na**	**na**	**na**	
Zinc (Zn)											
Sample Result	mg/kg	150	750	-	-	-	147	208	220	205	-
Duplicate Result	mg/kg	150	750	-	-	-	187	219	375	179	-
RpD	**%**						**na**	**na**	**na**	**na**	
Analytical Laboratory Duplicates											
Lead (Pb)											
Sample Result	mg/kg	100	500	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	100	500	-	-	-	-	-	-	-	-
RpD	**%**										
Zinc (Zn)											
Sample Result	mg/kg	2	10	-	-	-	-	-	-	-	-
Duplicate Result	mg/kg	2	10	-	-	-	-	-	-	-	-
RpD	**%**										
Analytical Laboratory Replicates											
Lead (Pb)											
Sample Result	mg/kg	100	500	120	1390	230	-	-	-	-	200
Duplicate Result	mg/kg	100	500	<100	1500	240	-	-	-	-	180
RpD	**%**			**na**	**8%**	**0**					**11%**
Zinc (Zn)											
Sample Result	mg/kg	3	15	552	4270	1180	-	-	-	-	704
Duplicate Result	mg/kg	3	15	376	4140	992	-	-	-	-	533
RpD	**%**			**38%**	**3%**	**17%**					**28%**

Bold *RpD Value is greater than or equal to 50% and the concentrations of both samples are greater than the PQL.*

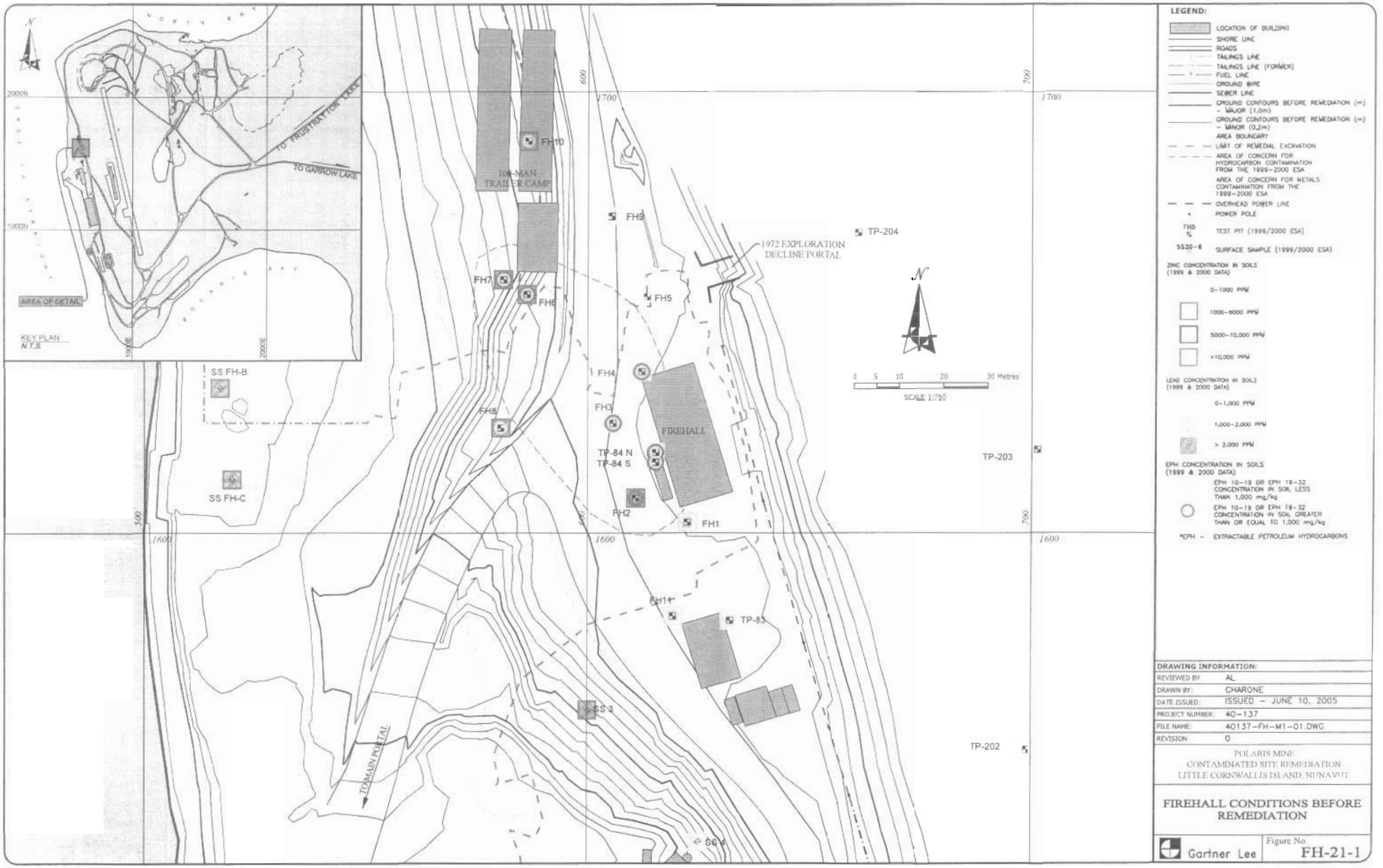
Notes:

na RpD value is not applicable because one or both results are less than the PQL.

*RpD Relative Percent Difference = (Difference/Average)*100.*

*PQL Practical Quantitation Limit = 5 * Method Detection Limit (MDL).*

MDL Method Detection Limit of analysis.



LEGEND:

- LOCATION OF BUILDING
- SHORE LINE
- ROADS
- TAILINGS LINE
- TAILINGS LINE (FORMER)
- FUEL LINE
- GROUND WIRE
- SEWER LINE
- GROUND CONTOURS BEFORE REMEDIATION (m) – MAJOR (1.0m)
- GROUND CONTOURS BEFORE REMEDIATION (m) – MINOR (0.2m)
- AREA BOUNDARY
- LIMIT OF REMEDIAL EXCAVATION
- AREA OF CONCERN FOR HYDROCARBON CONTAMINATION FROM THE 1999–2000 ESA
- AREA OF CONCERN FOR METALS CONTAMINATION FROM THE 1999–2000 ESA
- OVERHEAD POWER LINE
- POWER POLE
- FH5 TEST PIT (1999/2000 ESA)
- SS20-6 SURFACE SAMPLE (1999/2000 ESA)

ZINC CONCENTRATION IN SOILS (1999 & 2000 DATA)

- 0–1000 PPM
- 1000–5000 PPM
- 5000–10,000 PPM
- >10,000 PPM

LEAD CONCENTRATION IN SOILS (1999 & 2000 DATA)

- 0–1,000 PPM
- 1,000–2,000 PPM
- > 2,000 PPM

EPH CONCENTRATION IN SOILS (1999 & 2000 DATA)

- EPH 10–19 OR EPH 19–32 CONCENTRATION IN SOIL LESS THAN 1,000 mg/kg
- EPH 10–19 OR EPH 19–32 CONCENTRATION IN SOIL GREATER THAN OR EQUAL TO 1,000 mg/kg

*EPH – EXTRACTABLE PETROLEUM HYDROCARBONS

DRAWING INFORMATION:	
REVIEWED BY:	AL
DRAWN BY:	CHARONE
DATE ISSUED:	ISSUED – JUNE 10, 2005
PROJECT NUMBER:	40-137
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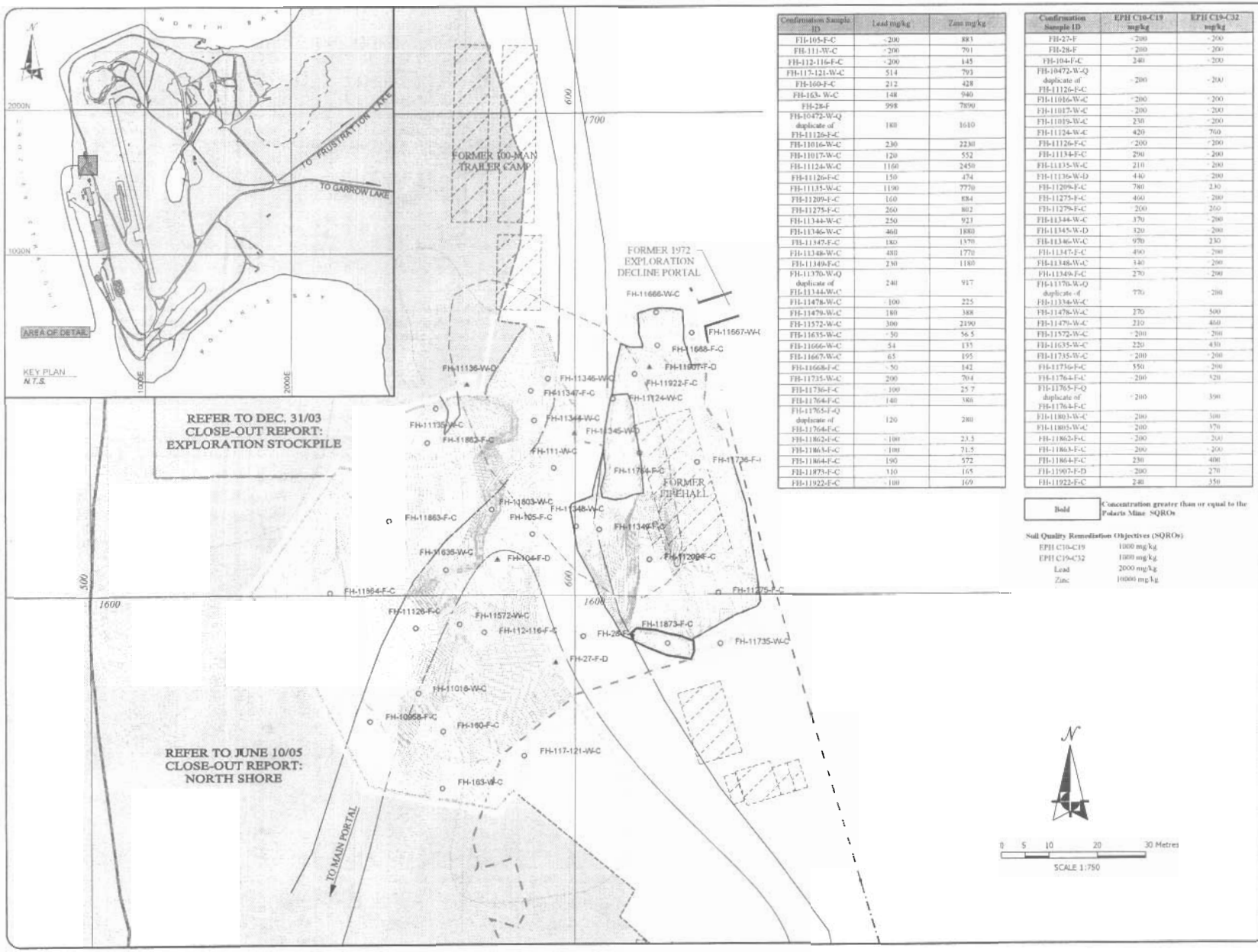
REVISION:	0

POLARIS MINE
CONTAMINATED SITE REMEDIATION
LITTLE CORNWALLIS ISLAND, NUNAVUT

FIREHALL CONDITIONS BEFORE REMEDIATION

Gartner Lee

Figure No. FH-21-1



Confirmation Sample ID	Lead mg/kg	Zinc mg/kg
FH-105-F-C	<200	883
FH-111-W-C	<200	791
FH-112-116-F-C	<200	145
FH-117-121-W-C	514	793
FH-160-F-C	212	428
FH-163- W-C	148	940
FH-28-F	998	7890
FH-10472-W-Q duplicate of FH-11126-F-C	180	1640
FH-11016-W-C	230	2230
FH-11017-W-C	120	552
FH-11124-W-C	1160	2450
FH-11126-F-C	150	474
FH-11135-W-C	1190	7770
FH-11209-F-C	160	884
FH-11275-F-C	260	802
FH-11344-W-C	250	923
FH-11346-W-C	460	1880
FH-11347-F-C	180	1370
FH-11348-W-C	480	1770
FH-11349-F-C	230	1180
FH-11370-W-Q duplicate of FH-11344-W-C	240	917
FH-11478-W-C	<100	225
FH-11479-W-C	180	388
FH-11572-W-C	300	2190
FH-11635-W-C	<50	56.5
FH-11666-W-C	54	135
FH-11667-W-C	65	195
FH-11668-F-C	<50	142
FH-11735-W-C	200	704
FH-11736-F-C	<100	25.7
FH-11764-F-C	140	386
FH-11765-F-Q duplicate of FH-11764-F-C	120	280
FH-11862-F-C	<100	23.5
FH-11863-F-C	<100	71.5
FH-11864-F-C	190	572
FH-11873-F-C	310	165
FH-11922-F-C	<100	169

Confirmation Sample ID	EPH C10-C19 mg/kg	EPH C19-C32 mg/kg
FH-27-F	<200	<200
FH-28-F	<200	<200
FH-104-F-C	240	<200
FH-10472-W-Q duplicate of FH-11126-F-C	<200	<200
FH-11016-W-C	<200	<200
FH-11017-W-C	<200	<200
FH-11019-W-C	230	<200
FH-11124-W-C	420	760
FH-11126-F-C	<200	<200
FH-11134-F-C	290	<200
FH-11135-W-C	210	<200
FH-11136-W-D	440	<200
FH-11209-F-C	780	230
FH-11275-F-C	460	<200
FH-11279-F-C	<200	260
FH-11344-W-C	370	<200
FH-11345-W-D	320	<200
FH-11346-W-C	970	230
FH-11347-F-C	490	<200
FH-11348-W-C	340	<200
FH-11349-F-C	270	<200
FH-11370-W-Q duplicate of FH-11334-W-C	770	<200
FH-11478-W-C	270	500
FH-11479-W-C	210	460
FH-11572-W-C	<200	<200
FH-11635-W-C	220	430
FH-11735-W-C	<200	<200
FH-11736-F-C	550	<200
FH-11764-F-C	<200	520
FH-11765-F-Q duplicate of FH-11764-F-C	<200	390
FH-11803-W-C	200	500
FH-11805-W-C	200	370
FH-11862-F-C	<200	<200
FH-11863-F-C	<200	<200
FH-11864-F-C	230	400
FH-11907-F-D	<200	270
FH-11922-F-C	240	350

Bold — Concentration greater than or equal to the Polaris Mine SQROs

Soil Quality Remediation Objectives (SQROs)

EPH C10-C19	1000 mg/kg
EPH C19-C32	1000 mg/kg
Lead	2000 mg/kg
Zinc	10000 mg/kg

LEGEND:

- FORMER LOCATION OF BUILDING
- SHORE LINE
- ROADS
- TAILINGS LINE
- TAILINGS LINE (FORMER)
- FUEL LINE
- GROUND WIRE
- SEWER LINE
- GROUND CONTOURS AFTER REMEDIATION (m) – MAJOR (1.0m)
- GROUND CONTOURS AFTER REMEDIATION (m) – MINOR (0.2m)
- AREA BOUNDARY
- LIMIT OF REMEDIAL EXCAVATION
- AREA OF CONCERN FOR HYDROCARBON CONTAMINATION FROM THE 1999–2000 ESA
- AREA OF CONCERN FOR METALS CONTAMINATION FROM THE 1999–2000 ESA
- OVERHEAD POWER LINE
- POWER POLE
- COMPOSITE CONFIRMATORY FLOOR OR WALL SAMPLE
- DISCRETE CONFIRMATION OR WALL SAMPLE

SAMPLE NAMING CONVENTION

AREA – SAMPLE ID – ESP-7-I-D

LOCATION: C= COMPOSITE SAMPLE FLOOR–5 SAMPLES IN A 25x25m AREA; WALL–5 SAMPLES ALONG 25m OF WALL

TYPE: D= DISCRETE SAMPLE; Q= DUPLICATED QUALITY ASSURANCE/ QUALITY CONTROL SAMPLE

F= FLOOR SAMPLE; I= INTERMEDIATE FLOOR SAMPLE; W= WALL SAMPLE

- SOIL SAMPLE FROM EXCAVATION CONTAINS GREATER THAN 1,000 mg/kg EPH 10–19 OR EPH 19–32
- SOIL SAMPLE FROM EXCAVATION CONTAINS LESS THAN 1,000 mg/kg EPH 10–19 OR EPH 19–32

*EPH – EXTRACTABLE PETROLEUM HYDROCARBONS

- SAMPLE CONTAINS GREATER THAN OR EQUAL TO 10,000 mg/kg ZINC
- SAMPLE CONTAINS GREATER THAN OR EQUAL TO 2,000 mg/kg LEAD
- SAMPLE CONTAINS LESS THAN 10,000 mg/kg ZINC
- SAMPLE CONTAINS LESS THAN 2,000 mg/kg LEAD
- AREA OF WALL COMPOSITE SAMPLE CONTAINS GREATER THAN 1,000 mg/kg EPH 10–19 OR EPH 19–32 AND/OR GREATER THAN 10,000 mg/kg ZINC OR 2,000 mg/kg LEAD
- AREA OF WALL COMPOSITE SAMPLE CONTAINS LESS THAN 1,000 mg/kg EPH 10–19 AND EPH 19–32 AND/OR LESS THAN 10,000 mg/kg ZINC AND 2,000 mg/kg LEAD

DRAWING INFORMATION:	
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POLARIS MINE
CONTAMINATED SITE REMEDIATION
LITTLE CORNWALLIS ISLAND, NUNAVUT

FIREHALL CONDITIONS AFTER REMEDIATION

Gartner Lee

Figure No. FH-21-2

Appendix I

South Shore

June 10, 2005

Mr. Bruce Donald
Teck Cominco Limited
Bag 2000
Kimberley, BC V1A 3E1

Dear Mr. Donald:

Re: 40137 – Polaris Mine Operations Contaminated Soil Remediation
Close Out Report: South Shore

BACKGROUND

The South Shore area surrounded the former concentrate storage shed and extended west to Crozier Strait (shown as Area 25 on Figure 1: *Contaminated Soils Remediation Progress Plan, December 31, 2003* and on Figure 2: *Contaminated Soils Remediation Progress Plan, December 31, 2004*). Rock fill was used to level and expand the shoreline an additional 15 m (approximately) into Crozier Strait during construction. During the operation of the mine, the South Shore area was used as a storage yard for shipping containers. Several roads and a fuel line, that extended from the dock to the tank farm, crossed the area.

The Environmental Site Assessment (ESA) conducted in 1999 and 2000 identified metal contamination in the soil surrounding the concentrate shed on the South Shore. Two surface samples were collected, thirty one (31) test pits excavated and two (2) boreholes drilled during the ESA. The sample results indicated that elevated metal concentrations in the soil was limited to the upper 0.3 m between the south end of the concentrate storage shed and the shore. Between the north end of the concentrate storage shed and the shore elevated metal concentrations were encountered from surface to a depth of at least 1.5 m. No indication of hydrocarbon contamination was encountered during the ESA. The sample locations and an indication of results are shown on Figure SS-25-1: *South Shore Conditions Before Remediation*.

The sources of contaminate were attributed to lead and zinc concentrates being dispersed by wind and vehicle tracking from the concentrate storage shed and the conveyor to the shiploader at the dock. In addition, fill brought in to expand the shoreline during the construction and to repair eroded areas during the operation of the mine occasionally contained mineralized rock from near the ore zone and it was determined that it was to be excavated as part of the remedial work.

METHODOLOGY

Delineation

The preliminary boundaries of the remediation area, as identified in the ESA as "Areas of Concern" were not further delineated prior to excavation commencing along the shoreline in 2004. In 2004, further delineation of the remedial area was undertaken at the north end of the former concentrate storage shed by drilling eight boreholes and collecting field screening samples. The drill results determined that the metal contamination was bound vertically by bedrock at depths ranging from 0.3 m to 1.0 m below pre-excavation grades. Lead and zinc field screening measurements were obtained using a Niton portable X-Ray Fluorescence (XRF) elemental analyzer in accordance with standard Gartner Lee Limited (GLL) and Teck Cominco Limited (TCL) sampling procedures and protocols.

Excavation

The excavation of the South Shore area occurred from June 11, 2003 to October 23, 2003 and then again from April 19, 2004 to July 23, 2004. Material from the South Shore area was initial broken up for excavation utilising a ripper tooth attached to an excavator or onto the back of the D8 and D10 bulldozers. An excavator bucket was used to pick up the loosed material within the excavation, stockpile it and then load it onto trucks.

In 2003, a strip approximately 45 m wide from the dock cells to within 60 m of the foldaway buildings following the shoreline was removed. A berm was maintained between the ocean and the excavated area. The berm provided protection from the ocean flooding the area being excavated, as well as minimizing erosion in the marine foreshore area. Removal of the berm took place in May 2004 during periods of low tide. At this time ice still bound the foreshore and interaction with the marine foreshore was therefore reduced. Daily turbidity and Total Suspended Solids (TSS) levels were monitored prior to, during and immediately following periods of work in the foreshore in accordance with approved site procedures and protocols. Excavation activities were halted and mitigation measures implemented as required to address potential sediment releases into the marine environment.

In 2004, excavation occurred north and south of the former concentrate storage shed. During excavation at the north end of the concentrate storage shed, hydrocarbon contaminated soil was encountered. One source of hydrocarbon contamination originated at the fuel coupling located down slope of the road east of the barge (1313N, 680E). The contamination was found to have migrated downhill towards the gully that contained the conveyor-way from the barge to the concentrate shed. At this point the hydrocarbon contamination continued down gradient into the barge area. A second source of hydrocarbon contamination was located at a bend in the fuel line near the concentrate conveyor to the shiploader (1298N, 622E). Hydrocarbon contamination from this point source was found to have migrated down gradient towards the barge.

To direct the excavation activities, soil samples were collected across the floor excavation limits in accordance with standard GLL and TCL sampling procedures and protocols. Samples were field screened for metals using the XRF analyzer and for hydrocarbons using the portable photo-ionization detector (PID) to measure the concentrations of organic vapours in the headspace of the sample bags. Additional excavation was undertaken where sample results indicated the lead and zinc or hydrocarbon concentrations were greater than the Polaris Mine Soil Quality Remediation Objectives (SQRO's).

The final limits of the excavation areas are shown on Figure SS-25-2: *South Shore Conditions After Remediation*. The material excavated was disposed in the mine workings in accordance with regulatory approvals

Confirmation Sampling

Upon receipt of field screening results that indicated that the soil remaining in the excavation would meet the SQRO's, confirmation soil samples were collected. The excavation area was subdivided into individual composite sampling areas approximately 25 m by 25 m or less as required to cover the area to be sampled. Wall samples were composited over a length of 25 m on the wall of the excavation.

Soil samples were collected at the excavation limits and submitted to ALS Environmental for analysis of Extractable Petroleum Hydrocarbons (EPH), metals and Polycyclic Aromatic Hydrocarbons (PAH). Additional excavation was undertaken in areas that did not meet the SQRO's and additional confirmatory samples taken upon completion of excavation. Upon receipt of the analytical results that met the SQRO's the final excavation limits were surveyed.

ANALYTICAL RESULTS

Analytical laboratory results for EPH, metals and PAH are summarized in Tables SS-25-1, SS-25-2 and SS-25-3 along with the approved Polaris Mine SQRO's for petroleum hydrocarbons and metals. A total of four (4) hydrocarbon and one hundred fifty seven (157) metals remediation confirmation samples were submitted from the South Shore area. All of the hydrocarbon remediation confirmation samples were composite floor samples. Of the metals remediation confirmation samples there were one hundred sixteen (116) composite floors, nineteen (19) discrete floors, four (4) composite walls, one (1) discrete wall, and seventeen (17) quality assurance quality control (QA/QC) samples. The soil quality results and lateral limits of the excavation are shown on Figure SS-25-2.

Quality Assurance and Quality Control (QA/QC)

Relative percent differences (RpDs) have been calculated and compiled in Table SS-25-4 for thirty-one (31) field screening duplicates, seventeen (17) analytical laboratory duplicates and seventeen (17) analytical laboratory replicates for a total of sixty-five (65) QA/QC samples.

Sixty (60) of the sample results and their duplicate/replicate results returned RpDs below the practical quantitation limit (PQL), in which case the RpD value has been identified as "na" (not applicable), or returned acceptable RpDs, below the site specific remediation protocol of 50%. One on-site field screened duplicate and four of the analytical laboratory duplicates returned RpDs greater than the objective. The variance between these samples and their duplicates is considered indicative of sample heterogeneity, especially at low concentration levels of lead and zinc as compared to the SQRO's. The metal QA/QC samples from the South Shore area serve to document the variable nature of the metal concentrations in the soil at the Polaris Mine.

Polaris Mine Soil Quality Remediation Objectives

All of the hydrocarbon remediation confirmation samples returned results below the Polaris Mines SQRO's for EPH and PAH. All of the metal remediation confirmation composite samples returned results below the Polaris Mine SQRO's for lead and zinc. One of the twenty discrete samples, (sample Shore-11987-F-D), returned a lead concentration of 2,600 mg/kg which is greater than the SQRO of 2,000 mg/kg. The lead exceedance is less than two times the SQRO and is therefore in accordance with the approved site remedial protocol that stipulates "that contaminant concentrations in any residual soils will not exceed twice the SQRO's".

Discrete samples were collected to discern the homogeneity of the sample area for lead and zinc. The table below shows a comparison of discrete samples versus the composite areas they represented.

Summary of Discrete Sample Results Compared to Corresponding Composite Sample Results

Composite Sample ID	Lead (mg/kg)	Zinc (mg/kg)	Discrete Sample ID	Lead (mg/kg)	Zinc (mg/kg)
Shore-52-F-C	135	645	Shore-59-F-D	<100	273
Shore-77-F-C	166	527	Shore-79-F-D	279	1220
Shore-76-F-C	121	365	Shore-78-F-D	202	967
Shore-56-F-C	225	991	Shore-466-F-D	1790	7800
Shore-54-F-C	208	1100	Shore-462-F-D	300	1530
Shore-146-F-C	553	1330	Shore-144-F-D	256	1360
Shore-11303-F-C	1170	3130	Shore-10775-F-D	220	526
Shore-10821-F-C	560	861	Shore-10779-F-D	680	1190
Shore-11368-F-C	310	1630	Shore-10947-F-D	310	1740
Shore-11308-F-C	270	1380	Shore-10956-F-D	210	1510
Shore-11747-F-C	290	822	Shore-11317-F-D	<100	241
Shore-11366-F-C	310	1380	Shore-11338-F-D	270	1290
Shore-11744-F-C	<50	101	Shore-11565-F-D	<50	69
Shore-11669-F-C	180	467	Shore-11649-F-D	319	1220
Shore-11364-F-C	110	747	Shore-11722-F-D	232	1340
Shore-11747-F-C	290	822	Shore-11854-F-D	<100	114
Shore-11998-F-C	<100	51	Shore-11964-F-D	320	934
Shore-11485-F-C	610	3020	Shore-11987-F-D	**2600**	4400
Shore-11821-F-C	228	616	Shore-11988-F-D	210	424
Shore-12074-W-C	93	361	Shore-12071-W-D	295	473

Generic Federal Soil Quality Guidelines for Parkland Land Use

A total of twenty (20) randomly selected samples were analysed for total metals as follows: fourteen (14) composite samples, five (5) discrete samples and one Quality Assurance and Quality Control sample.

Barium concentrations ranged from 192 mg/kg to 1,100 mg/kg. Sixteen (16) of the samples exceeded the generic Canadian Council of Ministers of Environment (CCME) Canadian Environmental Quality Guideline (CEQG) for parkland land use of 500 mg/kg Barium in soil. One sample with a Barium concentration of 608 mg/kg returned an Arsenic concentration of 15 mg/kg, which exceeds generic CCME CEQG for parkland land use of 12 mg/kg Arsenic in soil. Cadmium concentrations ranged from 1.4 mg/kg to 17.8 mg/kg. The CCME recognizes that local geological conditions may result in elevated background levels of metals above the guidelines.

Barium is a common mineral associated with lead sulphides, and it is found in cavities in limestone and dolostone. Soil samples collected during the 2004 vegetation sampling program at Polaris, as documented in the November 24, 2004 Memorandum *2004 Vegetation Sampling*

Results, are considered to be representative of background conditions. Samples were collected at the following intervals surface to 0.01 m, 0.01 m to 0.05 m, and 0.05 m to 0.1 m. Concentrations of arsenic and barium greater than generic CCME CEQG Parkland land use were detected in each interval. The variability of arsenic and barium concentrations in those samples in listed in the following table.

Summary of 2004 Background Area Soil Concentrations of Arsenic and Barium

Parameter	n	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Median Concentration (mg/kg)	Mean Concentration (mg/kg +/-SD)	90th Percentile (mg/kg)	75th Percentile (mg/kg)
Arsenic	12	<5	15.1	12	11 +/- 2.7	13	12.25
Barium	12	228	2140	1185	1249 +/-518	1986	1560

n = number of samples.

SD = standard deviation

The concentrations of arsenic and barium remaining within the footprint of the South Shore area after remediation are within the range of the background concentrations. In addition, the immobile nature of the Arsenic and Barium encountered on site was demonstrated in the ESA leachate test results that returned Arsenic and Barium concentrations at levels less than the detection limit and they were therefore not identified as a contaminants of concern in the ESA.

Two (2) of the discrete samples (Shore-466-F-D and Shore-11987-F-D) exceeded the CCME CEQG parkland land use of 10 mg/kg Cadmium in soil (Sample Shore-11987-F-D also returned lead concentrations greater than the SQRO). Cadmium was not identified as a contaminant of concern based on the total metal analyses and leachate test results conducted during the ESA. Given the immobile nature of the Cadmium encountered on site, as demonstrated by the leachate results, the relatively low level of concentrations (less than twice the generic CCME guidelines for Parkland land use) and the lack of elevated concentrations being detected in the composite samples, no further remedial excavation work is considered necessary

The confirmatory samples supported by the QA/QC samples from the South Shore area provide confidence that the remediation of the area complies with the SQRO's.

CONCLUSIONS

Based on confirmatory sampling consistent with good practice and the approved site specific sampling procedures and protocols, the remediation of the South Shore area has been completed to meet the Polaris Mine remedial targets, as documented in the approved Polaris Mine Decommissioning and Remediation Plan, March 2001.

LIMITATIONS

This report has been prepared by Gartner Lee Ltd. and the information in this report is intended for the use of Teck Cominco Metals Ltd. during the decommissioning and reclamation program at the Polaris Mine Site. Any use which a third party makes of this report, or any reliance on or decisions made on the basis of the information in this report is the responsibility of such third parties. Gartner Lee Limited accepts no responsibility for damages, if any, suffered by the third party, based on the use of or reliance on any information contained in this report.

The scope of Gartner Lee Limited's work was limited to that described in this report. The confirmation of environmental conditions at the site of the remedial work is based on sampling at specific wall and floor locations within the excavation limits. Gartner Lee Limited has used judgement in the interpretation of the available information but subsurface physical and/or chemical characteristics may vary between or beyond sampling locations. Gartner Lee Limited is not a guarantor of the environmental condition of the site but warrants only that its work was undertaken and its report prepared in a manner consistent with the level of skill and diligence normally exercised by competent environmental professionals practicing in the Nunavut Territory.

Yours very truly,
GARTNER LEE LIMITED

Dennis Lu, B.Sc.
Field Scientist

Arlene Laudrum, P.Geol.
Remediation Supervisor, Polaris Mine Project

AL:DL:gc

ATTACHMENTS

Tables

Table SS-25-1:	South Shore Remediation Confirmation Soil Samples – Hydrocarbons
Table SS-25-2:	South Shore Remediation Confirmation Soil Samples – Metals
Table SS-25-3:	South Shore Remediation Confirmation Soil Samples – Polycyclic Aromatic Hydrocarbons (PAHs)
Table SS 25-4:	South Shore Quality Assurance and Quality Control Remediation Soil Samples – Metals

Figures

Figure SS-25-1:	South Shore Conditions Before Remediation
Figure SS-25-2:	South Shore Conditions After Remediation

Table SS-25-1. South Shore Remediation Confirmation Soil Samples - Hydrocarbons

	Polaris Mine Soil Quality Remediation Objectives[a]	Location	South Shore			
		Sample ID	Shore-7-F-C	Shore-11860-F-C	Shore-11861-F-C	Shore-12037-F-C
		Date Sampled	23-Jun-03	29-Jun-04	29-Jun-04	23-Jul-04
		ALS File Number	S9893	U5353R	U5353R	U6364
		Field Screen (ppm)[b]	-	-	-	5
Parameter	**Site Specific**	**Units**	**Analytical Results**			
Extractable Hydrocarbons						
EPH C_{10}-C_{15}	1000	mg/kg	<200	<200	310	590
EPH C_{19}-C_{32}	1000	mg/kg	<200	<200	<200	<200
LEPH[c]	1000	mg/kg	-	-	-	590
HEPH[c]	1000	mg/kg	-	-	-	<200

Bold *Concentration greater than or equal to the Soil Quality Remediation Objective (SQRO) for the Polaris Mine Site.*

Note:
"<" = Less than analytical method detection limit
"-" = Analysis not conducted, or no guideline.

a) The aaproved Soil Quality Remediation Objectives (SQROs) for the Polaris Mine Site are based on the Yukon Territorial Contaminated Sites Regulation for Parkland (PL) Land Use.

b) Field screening results are measured based on a 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

c) Light Extractable Petroleum Hydrocarbons (LEPH) and Heavy Extractable Petroleum Hydrocarbons (HEPH) are determined by subtracting Polycyclic Aromatic Hydrocarbons (PAH) from Extractable Petroleum Hydrocarbons (EPH), therefore use of the EPH remediation objective is conservative.

Table SS-25-2. South Shore Area Remediation Confirmation Soil Samples - Metals

				Location	South Shore						
				Sample ID	Shore-4-F-C	Shore-5-F-C	Shore-6-F-C	Shore-8-F-C	Shore-10-F-C	Shore-50-F-C	Shore-51-F-C
				Date Sampled	24-Jun-03	24-Jun-03	24-Jun-03	24-Jun-03	24-Jun-03	19-Jul-03	19-Jul-03
				ALS File Number	S9893	S9893	S9893	S9893	S9893	T1801	T1801
		Polaris Mine Soil Quality Remediation Objectives[a]		Field Screen Pb (ppm)[b]	563	607	353	403	298	627	586
				Field Screen Zn (ppm)[b]	3347	3379	2440	1979	1610	2370	2418
Parameter		**Site Specific**	**CEQG (PL)[c]**	**Units**	**Analytical Results**						
pH		-	-	-	-	-	-	-	-	-	-
Total Metals											
Antimony	T-Sb	-	20[d]	mg/kg	-	-	-			-	-
Arsenic	T-As	-	12	mg/kg	-	-	-	-	-	-	-
Barium	T-Ba	-	500	mg/kg	-	-	-	-	-	-	-
Beryllium	T-Be	-	4[d]	mg/kg	-	-	-	-	-	-	-
Cadmium	T-Cd	-	10	mg/kg	-	-	-	-	-	-	-
Chromium	T-Cr	-	64	mg/kg	-	-	-	-	-		-
Cobalt	T-Co	-	50[d]	mg/kg		-	-	-	-	-	-
Copper	TCu	-	63	mg/kg		-	-	-	-	-	-
Lead	T-Pb	2000	-	mg/kg	487	643	496	1970	1050	500	267
Mercury	T-Hg	-	7	mg/kg	-	-	-		-	-	-
Molybdenum	T-Mo	-	10[d]	mg/kg	-	-	-	-	-	-	-
Nickel	T-Ni	-	50	mg/kg	-	-	-	-	-	-	-
Selenium	T-Se	-	1	mg/kg	-	-	-	-	-	-	-
Silver	T-Ag	-	20[d]	mg/kg	-	-	-	-	-	-	-
Tin	T-Sn	-	50[d]	mg/kg	-	-	-	-	-	-	-
Vanadium	T-V	-	130	mg/kg	-	-	-	-	-	-	-
Zinc	T-Zn	10000	-	mg/kg	2690	3170	3760	4670	2660	2470	1420

Bold *Concentration greater than or equal to the Soil Quality Remediation Objective (SQRO) for the Polaris Mine Site.*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) The Soil Quality Remediation Objectives (SQROs) for the Polaris Mine Site are based on Canadian Council of Ministers of the Environment (CCME) standards and guidelines. The CCME provides criteria based on land use activities and applies the most strigent criteria based on site-specific receptors and exposure pathways.

b) Field screening results are measured using a Niton Xli 700 Series portable X-Ray Fluorescence (XRF) elemental analyser.

c) Canadian Environmental Quality Guidelines (CEQG) for Parkland (PL) Land Use. The site-specific factors used for determining the soil quality guidelines were: soil ingestion, soil contact and nutrient cycling.

d) Interim Remediation Criterion. Soil Quality Guidelines based on the CCME soil protocol have not yet been developed for a given parameter.

Table SS-25-2. South Shore Area Remediation Confirmation Soil Samples - Metals

				Location	South Shore						
				Sample ID	Shore-52-F-C	Shore-54-F-C	Shore-56-F-C	Shore-57-F-C	Shore-58-F-C	Shore-59-F-D	Shore-60-F-C
				Date Sampled	19-Jul-03	19-Jul-03	19-Jul-03	19-Jul-03	19-Jul-03	19-Jul-03	19-Jul-03
				ALS File Number	T1801	T1801	T1801	T1801	T1801	T1801	T1801
		Polaris Mine Soil Quality Remediation Objectives[a]		Field Screen Pb (ppm)[b]	287	353	280	203	234	174	282
				Field Screen Zn (ppm)[b]	874	1294	985	288	516	620	1465
Parameter		**Site Specific**	**CEQG (PL)[c]**	**Units**	**Analytical Results**						
pH		-	-	-	-	-	-	-	-	-	-
Total Metals											
Antimony	T-Sb	-	20[d]	mg/kg	-	-	-			-	-
Arsenic	T-As		12	mg/kg	-	-	-	-	-	-	-
Barium	T-Ba	-	500	mg/kg	-	-	-	-	-	-	-
Beryllium	T-Be	-	4[d]	mg/kg	-	-	-	-	-	-	-
Cadmium	T-Cd	-	10	mg/kg	-	-	-	-	-	-	-
Chromium	T-Cr		64	mg/kg	-	-	-	-	-	-	-
Cobalt	T-Co	-	50[d]	mg/kg			-	-	-		-
Copper	TCu	-	63	mg/kg			-		-	-	-
Lead	T-Pb	2000	-	mg/kg	135	208	225	137	154	<100	484
Mercury	T-Hg	-	7	mg/kg	-	-	-	-	-	-	-
Molybdenum	T-Mo	-	10[d]	mg/kg	-	-	-	-	-	-	-
Nickel	T-Ni	-	50	mg/kg	-	-	-	-	-	-	-
Selenium	T-Se	-	1	mg/kg	-	-	-	-	-	-	-
Silver	T-Ag	-	20[d]	mg/kg	-	-	-	-	-	-	-
Tin	T-Sn	-	50[d]	mg/kg	-	-	-	-	-	-	-
Vanadium	T-V	-	130	mg/kg	-	-	-	-	-	-	-
Zinc	T-Zn	10000	-	mg/kg	645	1100	991	448	265	273	3150

Bold *Concentration greater than or equal to the Soil Quality Remediation Objective (SQRO) for the Polaris Mine Site.*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) The Soil Quality Remediation Objectives (SQROs) for the Polaris Mine Site are based on Canadian Council of Ministers of the Environment (CCME) standards and guidelines. The CCME provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathways.

b) Field screening results are measured using a Niton Xli 700 Series portable X-Ray Fluorescence (XRF) elemental analyser.

c) Canadian Environmental Quality Guidelines (CEQG) for Parkland (PL) Land Use. The site-specific factors used for determining the soil quality guidelines were: soil ingestion, soil contact and nutrient cycling.

d) Interim Remediation Criterion. Soil Quality Guidelines based on the CCME soil protocol have not yet been developed for a given parameter.

Table SS-25-2. South Shore Area Remediation Confirmation Soil Samples - Metals

				Location	South Shore						
				Sample ID	Shore-61-F-C	Shore-53-F-Q	Shore-74-F-C	Shore-75-F-C	Shore-76-F-C	Shore-77-F-C	Shore-78-F-D
				Date Sampled	19-Jul-03	19-Jul-03	22-Jul-03	22-Jul-03	23-Jul-03	22-Jul-03	22-Jul-03
				ALS File Number	T1801	T1801	T1888	T1888	T1888	T1888	T1888
		Polaris Mine Soil Quality Remediation Objectives[a]		Field Screen Pb (ppm)[b]	212	duplicate of	485	675	271	259	309
				Field Screen Zn (ppm)[b]	816	Shore-61-F-C	1826	4195	826	805	1114
Parameter		**Site Specific**	**CEQG (PL)[c]**	**Units**	**Analytical Results**						
pH		-	-	-	-	-	-	-	-	-	-
Total Metals											
Antimony	T-Sb	-	20[d]	mg/kg	-	-	-	-		-	-
Arsenic	T-As		12	mg/kg	-	-	-	-	-	-	-
Barium	T-Ba	-	500	mg/kg	-	-	-	-	-	-	-
Beryllium	T-Be	-	4[d]	mg/kg	-	-	-	-	-	-	-
Cadmium	T-Cd	-	10	mg/kg	-	-	-	-	-	-	-
Chromium	T-Cr		64	mg/kg	-	-	-	-	-	-	-
Cobalt	T-Co		50[d]	mg/kg	-	-	-	-	-		-
Copper	TCu	-	63	mg/kg	-	-	-	-	-	-	-
Lead	T-Pb	2000	-	mg/kg	<100	<100	453	437	121	116	202
Mercury	T-Hg	-	7	mg/kg	-	-	-	-	-	-	-
Molybdenum	T-Mo	-	10[d]	mg/kg	-	-	-	-	-	-	-
Nickel	T-Ni	-	50	mg/kg	-	-	-	-	-	-	-
Selenium	T-Se	-	1	mg/kg	-	-	-	-	-	-	-
Silver	T-Ag	-	20[d]	mg/kg	-	-	-	-	-	-	-
Tin	T-Sn	-	50[d]	mg/kg	-	-	-	-	-	-	-
Vanadium	T-V	-	130	mg/kg	-	-	-	-	-	-	-
Zinc	T-Zn	10000	-	mg/kg	431	495	5590	4300	365	527	967

Bold *Concentration greater than or equal to the Soil Quality Remediation Objective (SQRO) for the Polaris Mine Site*

Notes:

"<" = Less than analytical method detection limit.

"-" = Analysis not conducted, or no guideline.

a) The Soil Quality Remediation Objectives (SQROs) for the Polaris Mine Site are based on Canadian Council of Ministers of the Environment (CCME) standards and guidelines. The CCME provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathways.

b) Field screening results are measured using a Niton Xli 700 Series portable X-Ray Fluorescence (XRF) elemental analyser.

c) Canadian Environmental Quality Guidelines (CEQG) for Parkland (PL) Land Use. The site-specific factors used for determining the soil quality guidelines were: soil ingestion, soil contact and nutrient cycling.

d) Interim Remediation Criterion. Soil Quality Guidelines based on the CCME soil protocol have not yet been developed for a given parameter.