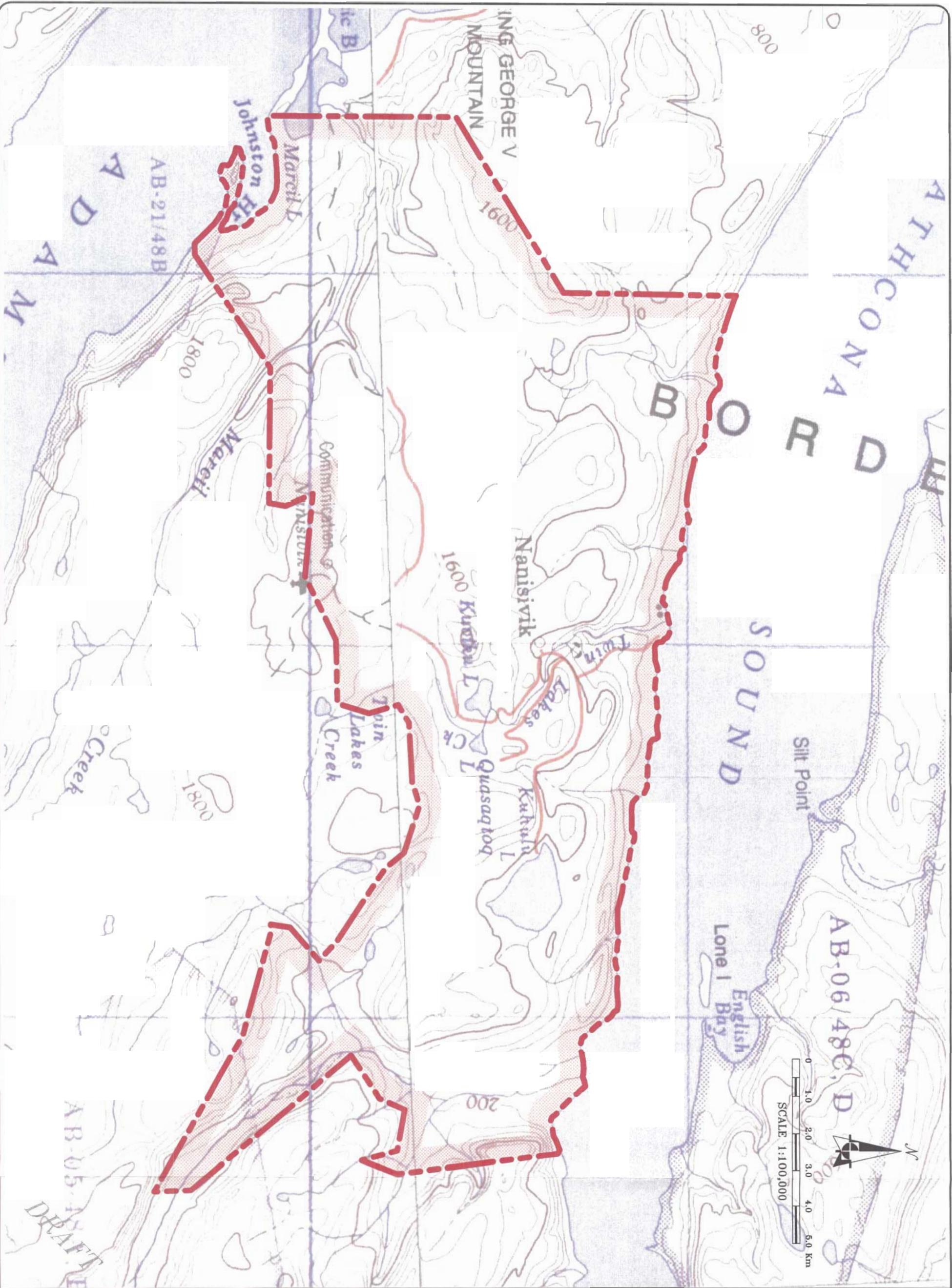
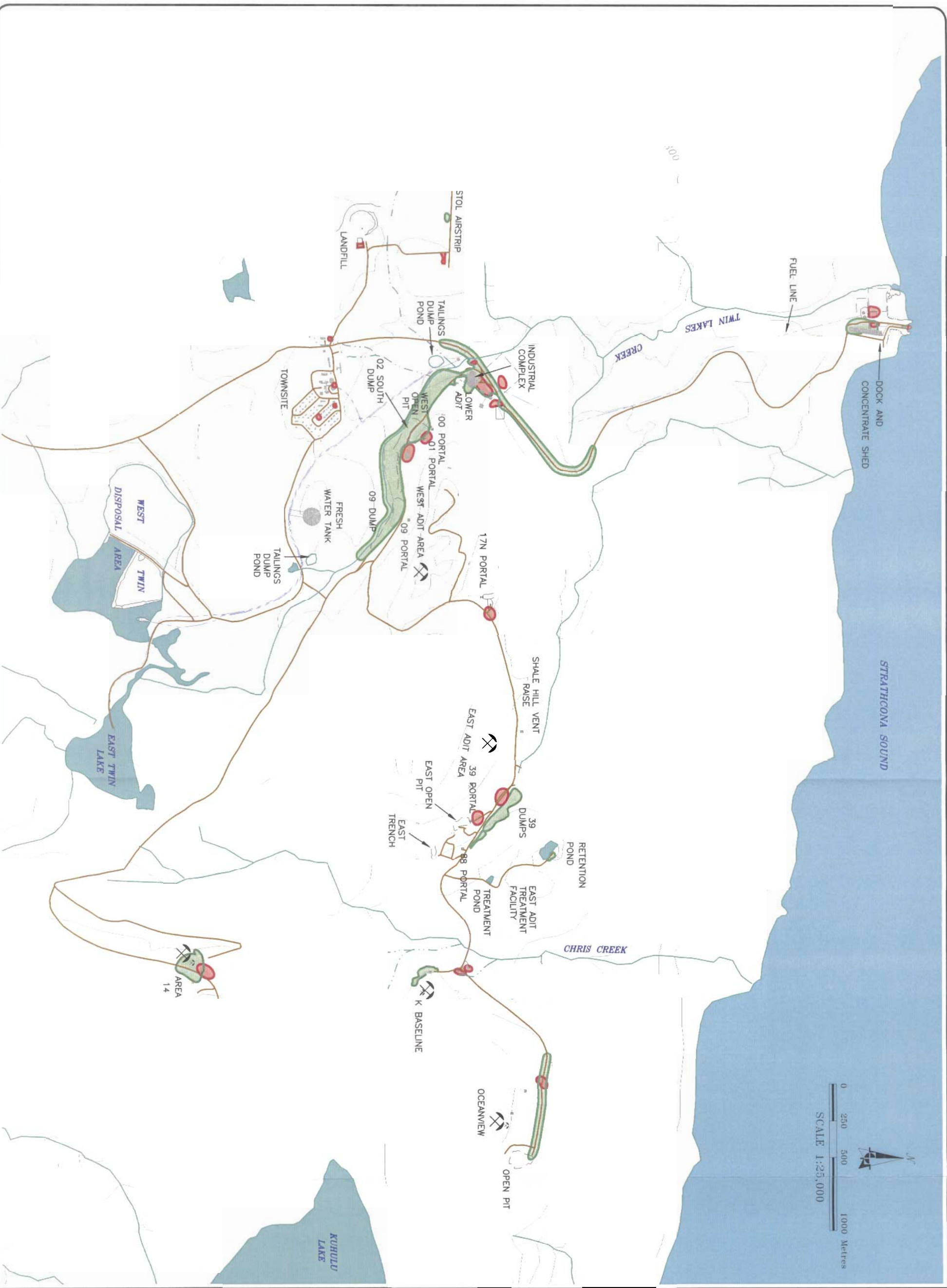




LEGEND:

— AREAL EXTENT OF 1985 GEOCHEMICAL SURVEY

SOURCE OF DRAWING:	
GOVERNMENT TOPOGRAPHIC MAPS	
1:250,000 SCALE	
48A,B,C,D 1993.	
NAD83 ZONES 16 & 17	
DRAWING INFORMATION:	
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DRAWN BY:	AS
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REVISION:	0
PHASE 3, ENVIRONMENTAL SITE ASSESSMENT	
NANISIVIK MINE, NUNAVUT	
AREAL EXTENT OF 1985 SOIL GEOCHEMICAL SURVEY	
	Garner Lee
Figure No.	4



LEGEND:

- ROAD
- GROUND CONTOUR (50 m INTERVAL)
- SHORELINE, DRAINAGE, STREAMS
- INTERMITTENT DRAINAGE
- HIGH TIDE LINE - SURVEYED
- TOP OF BANK
- PIPELINE
- EXTENT OF UNDERGROUND WORKINGS
- MINING AREA
- ADIT, RAISE
- AREA OF CONCERN FOR METALS
- AREA OF CONCERN FOR HYDROCARBONS

SOURCE OF DRAWING:

ORIGINAL FIGURES PROVIDED BY NANISIVIK MINE

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2003 PHASE III ENVIRONMENTAL SITE ASSESSMENT
NANISIVIK MINE, NUNAVUT

TARGETED AREAS FOR REMEDIATION

Tables



Table 1a. Dock and Related Facilities, Summary of Analytical Results for Hydrocarbons in Soil

Gartner Lee	Location:															
	Sample ID:															
	Sample Date:															
	Sample from (m):															
	Sample to (m):															
Parameter	Field Screen* (ppm)															
	Federal CCME															
	Guidelines (IL) ^b															
	PHC CWS ^c															
	CEQG ^d															
Units																
Extractable Hydrocarbons																
Fraction 1 (C6-10) surface ^{ef}	mg/kg	330	-													
Fraction 1 (C6-10) subsoil ^{ef}	mg/kg	700	-													
Fraction 2 (C10-16) surface ^{ef}	mg/kg	760	-													
Fraction 2 (C10-16) subsoil ^{ef}	mg/kg	1200	-													
Fraction 3 (C16-34) surface ^{ef}	mg/kg	1700	-													
Fraction 3 (C16-34) subsoil ^{ef}	mg/kg	3500	-													
Fraction 4 (C34-50) surface ^{ef}	mg/kg	3300	-													
Fraction 4 (C34-50) subsoil ^{ef}	mg/kg	10000	-													
Non-Halogenated Volatiles																
Benzene	mg/kg	-	5	-	-	<0.03	-	-	-	<0.03	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	20	-	-	<0.03	-	-	-	<0.03	-	-	-	-	-	-
Toluene	mg/kg	-	14	-	-	0.15	-	-	-	0.07	-	-	-	-	-	-
Meta- & para-Xylene	mg/kg			-	-	0.38	-	-	-	0.11	-	-	-	-	-	-
ortho-Xylene	mg/kg			-	-	0.73	-	-	-	0.11	-	-	-	-	-	-
Total Xylene ^g	mg/kg	-	21	-	-	1.11	-	-	-	0.22	-	-	-	-	-	-

Associated Maxxam Analytics file: A316723-R2.

Concentration greater than or equal to the CCME generic soil guideline for Industrial (IL) land use.

Notes:

< = Less than the detection limit indicated.

- = Analysis not conducted, or no guideline.

^a Field screening measurements are based on the 'dry headspace' method using a combustible gas meter calibrated to a methane standard.^b Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathway.^c Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: ecological soil contact, and soil ingestion.^d Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.^e Guideline is dependent upon depth of sample (surface, subsoil > 1.5 m depth).^f Guideline is dependent on median grain size of soil analyzed (Fine ≤ 75 µm, Coarse > 75 µm). Median grain size of soil sampled is coarse.^g Total Xylene calculated as the sum of meta, para and ortho Xylenes.

Table 1b. Dock and Related Facilities, Summary of Analytical Results for Hydrocarbons in Soil

 Gartner Lee		Location:		DOCK	
		Sample ID:	TP03-309-4 ^a	TP03-310-4 ^b	
		Sample Date:	8/9/03	8/9/03	
		Sample from (m):	2.14	1.99	
		Sample to (m):	2.15	2	
Parameter	Units	Field Screen ^c (ppm)	35	105	
			Federal CCME Guidelines (TL) ^b		
		PHC CWS ^e	CEQG ^d		
Extractable Hydrocarbons					
Fraction 1 (C6-10) surface ^{e,f}	µg/g	230 ^b	-		
Fraction 1 (C6-10) subsoil ^{e,f}	µg/g	230 ^b	-	41	
Fraction 2 (C10-16) surface ^{e,f}	µg/g	150 ^b	-		
Fraction 2 (C10-16) subsoil ^{e,f}	µg/g	150 ^b	-	<4	
Fraction 3 (C16-34) surface ^{e,f}	µg/g	1700	-		
Fraction 3 (C16-34) subsoil ^{e,f}	µg/g	3500	-	<9	
Fraction 4 (C34-50) surface ^{e,f}	µg/g	3300	-	160	
Fraction 4 (C34-50) subsoil ^{e,f}	µg/g	10000	-	<8	
Non-Halogenated Volatiles					
Benzene	µg/g	-	5	<0.03	
Ethylbenzene	µg/g	-	20	0.18	
Toluene	µg/g	-	14	0.38	
Meta- & para-Xylene	µg/g			0.72	
ortho-Xylene	µg/g			0.4	
Total Xylene ^g	µg/g	-	21	1.12	

Associated Maxxam Analytics file: A316723-R2.

 Concentration greater than or equal to the CCME generic soil guideline for Industrial ('I') land use.

Notes:

< = Less than the detection limit indicated.

- = Analysis not conducted, or no guideline.

- a Field screening measurements are based on the 'fly headspace' method using a combustible gas meter calibrated to a hexane standard.
- b Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathway.
- c Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: protection of groundwater for aquatic life, ecological soil contact, and soil ingestion.
- d Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.
- e Guideline is dependent upon depth of sample (surface, subsoil > 1.5 m depth).
- f Guideline is dependent on median grain size of soil analyzed (Fine ≤ 75 µm, Coarse > 75 µm). Median grain size of soil sampled is coarse.
- g Total Xylene calculated as the sum of meta, para and ortho Xylenes.
- h Surface water body is within 10 m of test pit.

Table 2. General Mine Area, Summary of Analytical Results for Hydrocarbons in Soil

Gartner Lee	Location:		Industrial Complex																													
	Sample ID:		TP03-315-3		TP03-328-2		TP03-328-3		TP03-329-1		TP03-329-2		TP03-330-4		TP03-331-1		TP03-331-2		TP03-331-3		TP03-331-4		TP03-332-4		TP03-333-2		TP03-333-3		TP03-334-1		TP03-334-4	
	Sample Date:		8/11/03		8/11/03		8/11/03		8/11/03		8/11/03		8/12/03		8/12/03		8/12/03		8/12/03		8/12/03		8/12/03		8/12/03		8/12/03		8/12/03		8/12/03	
	Sample from (m):		1.29		0.4		0.25		0		duplicate of		1.79		0		0.35		0.95		1.69		2.59		0.3		2.79		0		1.39	
	Sample to (m):		1.3		0.5		0.35		0.15		TP03-329-1		1.8		0.1		0.45		1		1.7		2.6		0.4		2.8		0.15		1.4	
	Field Screen* (ppm)		25		25		25		25		30		-		45		100		110		30		25		25		30		30		30	
	Federal CCME Guidelines PHC CWS ^{b,c} RL																															
	Parameter		Units																													
	Extractable Hydrocarbons																															
	Fraction 1 (C6-10) surface ^{d,e}		mg/kg		130																											
Fraction 1 (C6-10) subsoil ^{d,e}		mg/kg		350																												
Fraction 2 (C10-16) surface ^{d,e}		mg/kg		450																												
Fraction 2 (C10-16) subsoil ^{d,e}		mg/kg		1500																												
Fraction 3 (C16-34) surface ^{d,e}		mg/kg		400																												
Fraction 3 (C16-34) subsoil ^{d,e}		mg/kg		2500																												
Fraction 4 (C34-50) surface ^{d,e}		mg/kg		2800																												
Fraction 4 (C34-50) subsoil ^{d,e}		mg/kg		10000																												

Associated Maxxam Analytics files: A316723-R2, A316906, A331738.

Concentration greater than or equal to the CCME generic soil guideline for Residential/Parkland (RL) land use.

Notes:

< = Less than the detection limit indicated.

- = Analysis not conducted, or no guideline.

a. Field screening measurements are based on the 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.

b. Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathway.

c. Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: ecological soil contact, and soil ingestion.

d. Guideline is dependent upon depth of sample (surface, subsoil > 1.5 m depth).

e. Guideline is dependent on median grain size of soil analyzed (Fine ≤ 75 µm, Coarse > 75 µm). Median grain size of soil sampled is coarse.

Table 2. General Mine Area, Summary of Analytical Results for Hydrocarbons in Soil

Gartner Lee		Location:															K-BaseLine															STOL		
		Sample ID:	TP03-338-3	TP03-339-4	TP03-339-5	TP03-340-3	TP03-340-4	TP03-340-5	TP03-341-3	TP03-341-4	TP03-341-4	TP03-342-4	TP03-343-3	TP03-344-3	TP03-344-4	TP03-371-1	TP03-371-2	TP03-371-3																
Parameter	Units	Sample Date:	8/12/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/13/03	8/17/03	8/17/03	8/17/03																
		Sample from (m):	1.1	1.79	duplicate of	1	1.99	duplicate of	1.1	2.09	1.69	1	1.2	2.09	0	0.7	1.19																	
		Sample to (m):	1.2	1.8	TP03-339-4	1.1	2	TP03-340-4	1.2	2.1	1.7	1.1	1.3	2.1	0.15	0.8	1.2																	
		Field Screen* (ppm)	30	25	25	95	50	-	330	80	-	35	45	45	10000	170	8000																	
		Federal CCME Guidelines (RL) ^b																																
		PHC CWS ^c																																
Extractable Hydrocarbons																																		
Fraction 1 (C6-10) surface ^{d,e}	mg/kg	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																
Fraction 1 (C6-10) subsoil ^{d,e}	mg/kg	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																
Fraction 2 (C10-16) surface ^{d,e}	mg/kg	450	<4	-	-	910	-	-	-	-	-	<4	-	-	360	10	630																	
Fraction 2 (C10-16) subsoil ^{d,e}	mg/kg	1500	<4	<4	<4	37	97	1100	970	<4	<4	<4	<4	<4	<10	<9	<10																	
Fraction 3 (C16-34) surface ^{d,e}	mg/kg	400	<10	<10	<10	<9	<10	100	<10	<10	<10	<9	<9	<9	<9	<8	<9																	
Fraction 3 (C16-34) subsoil ^{d,e}	mg/kg	2500	<9	<10	<10	<9	<10	<8	<9	<9	<9	<8	<8	<8	<9	<8	<9																	
Fraction 4 (C34-50) surface ^{d,e}	mg/kg	2800	<9	<9	<9	<8	<9	<8	<9	<9	<9	<8	<8	<8	<9	<8	<9																	
Fraction 4 (C34-50) subsoil ^{d,e}	mg/kg	10000	<9	<9	<9	<8	<9	<8	<9	<9	<9	<8	<8	<8	<9	<8	<9																	

Associated Maxxam Analytics files: A316723-R2, A316906, A331738.

Concentration greater than or equal to the CCME generic soil guideline for Residue/Parkland (RL) land use

Notes:

< = Less than the detection limit indicated.

- = Analysis not conducted, or no guideline

^a Field screening measurements are based on the 'dry handshake' method using a combustible gas meter calibrated to a hexane standard.^b Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and are the most stringent criteria based on site-specific receptors and exposure pathway.^c Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include ecological soil contact, and soil ingestion.^d Guideline is dependent upon depth of sample (surface, subsoil) > 1.5 m depth).^e Guideline is dependent on median grain size of soil analysed (fine ≤ 75 µm, Coarse > 75 µm). Median grain size of soil sampled is coarse.

Table 2. General Mine Area, Summary of Analytical Results for Hydrocarbons in Soil

Parameter	Units	Location: Sample ID: Sample Date: Sample from (m): Sample to (m): Field Screen* (ppm)	STOL										Landfarm Cell				Landfill																	
			TP03-372-3		TP03-373-2		TP03-374-2		TP03-374-3		TP03-375-2		TP03-375-3		TP03-380-1		TP03-381-1		TP03-382-1		TP03-383-1		TP03-384-1		TP03-385-1		TP03-385-2		TP03-386-2		TP03-387-2		TP03-388-1	
			8/17/03	8/17/03	8/17/03	8/17/03	8/17/03	8/17/03	8/17/03	8/17/03	8/17/03	8/17/03	8/17/03	8/17/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03
Extractable Hydrocarbons	Fraction 1 (C6-10) surface ^{d,e}	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fraction 1 (C6-10) subsoil ^{d,e}	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Fraction 2 (C10-16) surface ^{d,e}	mg/kg	<5	<4	<4	<4	<4	<4	<4	<4	<4	360	5400	390	570	550	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	
	Fraction 2 (C10-16) subsoil ^{d,e}	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Fraction 3 (C16-34) surface ^{d,e}	mg/kg	<10	<9	<10	<10	<10	<10	<10	<10	<9	14	92	120	18	190	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9	<9
Fraction 3 (C16-34) subsoil ^{d,e}	mg/kg	2500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fraction 4 (C34-50) surface ^{d,e}	mg/kg	2800	<9	<8	<9	<9	<9	<9	<9	<8	<8	<9	<8	<9	<8	<8	<9	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	
Fraction 4 (C34-50) subsoil ^{d,e}	mg/kg	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Associated Maxxam Analytics files: A316723-R2, A316905, A331738.

Concentration greater than or equal to the CCME generic soil guideline for Residential/Parkland (RL) land use.

Notes:
 < = Less than the detection limit indicated.
 - = Analysis not conducted, or no guideline.

a. Field screening measurements are based on the 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
 b. Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathway.
 c. Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: ecological soil contact, and soil ingestion.
 d. Guideline is dependent upon depth of sample (surface, subsoil > 1.5 m depth).
 e. Guideline is dependent on median grain size of soil analyzed (Fine ≤ 75 µm, Coarse > 75 µm). Median grain size of soil sampled is coarse.

Table 3. Town Site, Summary of Analytical Results for Hydrocarbons in Soil

 Gartner Lee		Location:		Carpenter Shop			
		Sample ID:	TP03-367-3	TP03-368-3	TP03-369-2	TP03-370-3	TP03-364-3
Parameter	Units	Sample Date:	8/17/03	8/17/03	8/17/03	8/17/03	8/17/03
		Sample from (m):	1	1.2	1	0.9	duplicate of
		Sample to (m):	1.1	1.3	1.1	1.1	TP03-370-3
		Field Screen ^a (ppm)	55	45	40	20	80
		Federal CCME Guidelines (RL) ^b PHC CWS ^c					
Extractable Hydrocarbons							
Fraction 1 (C6-10) surface ^{d,e}	mg/kg	130	-	-	-	-	
Fraction 2 (C10-16) surface ^{d,e}	mg/kg	450	<4	<4	<4	<4	
Fraction 3 (C16-34) surface ^{d,e}	mg/kg	400	<10	<9	<9	<10	
Fraction 4 (C34-50) surface ^{d,e}	mg/kg	2800	<8	<8	<10	<9	

Associated Maxxam Analytics file: A317273.

 Concentration greater than or equal to the CCME generic soil guideline for Residential/Parkland (RL) land use.

Notes:

< = Less than the detection limit indicated.

- = Analysis not conducted, or no guideline.

- ^a Field screening measurements are based on the 'dry headspace' method using a combustible gas meter calibrated to a hexane standard.
- ^b Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathway.
- ^c Petroleum Hydrocarbon Canada-Wide Standards (PHC CWS). The site-specific exposure pathways used to determine the standards include: ecological soil contact, and soil ingestion.
- ^d Guideline is dependant upon depth of sample (surface, subsoil > 1.5 m depth).
- ^e Guideline is dependent on median grain size of soil analyzed (Fine <75 µm, Coarse >75 µm). Median grain size of soil sampled is coarse.

Table 4. Dock and Related Facilities, Summary of Analytical Results for Metals in Soil

Gartner Lee		Location:		DOCK												
Parameter	Units	Federal CCME Guidelines SQROs Dock CEQG ^{ab} IL Area	DOCK													
			TP03-301-1	TP03-302-1	TP03-304-1	TP03-309-1	TP03-310-1	TP03-310-2	TP03-311-1	TP03-312-1	TP03-313-1	TP03-314-1	TP03-315-1	TP03-316-1	TP03-317-1	
			8/9/03	8/9/03	8/9/03	8/9/03	8/9/03	8/9/03	8/9/03	8/11/03	8/11/03	8/11/03	8/11/03	8/11/03	8/11/03	8/11/03
			0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0.15	0.15	0.15	0.15	0.15	0.5	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Metals																
Aluminum (Al)	µg/g	-	10800	13100	13800	14400	9670	13100	-	7410	-	-	-	-	15200	-
Arsenic (As) ^d	µg/g	12	-	5	-	-	-	5	-	-	-	-	-	-	-	-
Barium (Ba)	µg/g	2000	51.5	50.3	57.3	53.1	28.2	63.6	-	29.4	-	-	-	-	92.4	-
Beryllium (Be)	µg/g	8	0.5	0.5	0.5	0.6	<1	0.5	-	<1	-	-	-	-	0.7	-
Bismuth (Bi)	µg/g	-	5.6	3.7	<2.3	<2.3	<2.3	5	-	<2.3	-	-	-	-	<2.3	-
Boron (B)	µg/g	-	17.9	17.9	27.8	36.1	14.6	13.6	-	19.7	-	-	-	-	17.2	-
Cadmium (Cd)	µg/g	2800	243	69.9	26.5	51.8	513	77.9	7.5	49.5	5.3	12	29.7	-	4.6	33.3
Calcium (Ca)	µg/g	-	66900	77700	77500	71300	54900	77100	-	57400	-	-	-	-	48900	-
Chromium (Cr)	µg/g	87	13.1	18.1	23.1	18.6	11.8	15.4	-	7	-	-	-	-	18.1	-
Cobalt (Co)	µg/g	300 ^e	11.2	7.7	9.6	10	24	7.3	-	12.9	-	-	-	-	11.6	-
Copper (Cu)	µg/g	5900	153	207	245	123	339	51.5	-	136	-	-	-	-	33.7	-
Iron (Fe)	µg/g	-	31000	26500	27900	25300	41900	24700	-	39700	-	-	-	-	28600	-
Lead (Pb)	µg/g	4500	3180	1600	300	1620	3580	2010	87.8	13800	177	316	304	600	123	615
Lithium (Li)	µg/g	-	49.7	62.7	66.2	69.2	54	63.1	-	36.5	-	-	-	-	55.4	-
Magnesium (Mg)	µg/g	-	50900	68300	67200	64900	46900	65600	-	37400	-	-	-	-	49900	-
Manganese (Mn)	µg/g	-	266	307	335	282	267	323	-	194	-	-	-	-	402	-
Molybdenum (Mo)	µg/g	40 ^e	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	-	<0.6	-	-	-	-	<0.6	-
Nickel (Ni)	µg/g	50	16.9	19.4	20	18	27.1	17.9	-	12.4	-	-	-	-	22.9	-
Phosphorus (P)	µg/g	-	66.6	280	69.7	191	<40	269	-	<40	-	-	-	-	332	-
Potassium (K)	µg/g	-	2040	2790	2700	3140	2330	2590	-	1480	-	-	-	-	1960	-
Silicon (Si)	µg/g	-	1480	437	1720	1290	1470	420	-	979	-	-	-	-	1030	-
Silver (Ag)	µg/g	40 ^e	32.5	10.1	3.1	8.2	46.6	9.5	-	63.5	-	-	-	-	<0.7	-
Sodium (Na)	µg/g	-	200	296	324	418	153	427	-	278	-	-	-	-	220	-
Strontium (Sr)	µg/g	-	43	56.1	48.3	56.8	41.9	52.5	-	64.7	-	-	-	-	27.5	-
Sulfur (S)	µg/g	-	48500	15700	7900	17000	95900	16400	-	90200	-	-	-	-	2090	-
Thallium (Tl) ^d	µg/g	1	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-
Tin (Sn)	µg/g	300 ^e	<1.8	<1.8	<1.8	<1.8	<18	<1.8	-	<18	-	-	-	-	<1.8	-
Titanium (Ti)	µg/g	-	142	213	263	160	118	133	-	109	-	-	-	-	194	-
Tungsten (W)	µg/g	-	411	18.6	<30	<3	45	19.7	-	30	-	-	-	-	<3	-
Vanadium (V)	µg/g	130	26.1	35.5	39.5	34	25.2	33.4	-	16.3	-	-	-	-	38.3	-
Zinc (Zn)	µg/g	44000	88200	25400	9570	19100	180000	24600	2710	165000	1830	4860	4530	10400	1470	11.4

Associated Maxxam Analytics files: A330703, A351838, A400664, A401101

BOLD Concentration greater than or equal to the CCME generic soil CEQG for Industrial (IL) land use.
Concentration greater than or equal to the Nanisivik Mine's site-specific SQROs for the Dock Area.

Notes:

< = Less than the method detection limit indicated.
- = Analysis not conducted, or no guideline.

- a Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathway.
b Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.
c Interim Remediation Criteria for soil. Soil Quality Guideline based on the CCME soil protocol have not yet been developed for a given chemical.
d Only results obtained using graphite furnace atomic absorption (FAA) method reported for hydride metals (As, Sb, Se, Te).

Table 5. General Mine Area, Summary of Analytical Results for Metals in Soil

Gartner Lee		Location:		Road (Industrial Complex to Dock)										Industrial Complex																	
		Sample ID:		TP03-319-1		TP03-32 -1		TP03-323-1		TP03-323-2		TP03-324-1		TP03-325-1		TP03-326-1		TP03-326-2		TP03-327-1		TP03-327-2		TP03-330-1		TP03-330-2		TP03-330-3			
		Sample Date:		8/11/03		8/11/03		8/11/03		8/11/03		8/11/03		8/11/03		8/11/03		8/11/03		8/11/03		8/11/03		8/11/03		8/12/03		8/12/03		8/12/03	
		Sample from (m):		0		0		0		0.4		0		0		0		0		0.3		0		0.4		0		duplicate of		0.4	
Sample to (m):		0.15		0.15		0.15		0.5		0.15		0.15		0.15		0.4		0.15		0.5		0.15		TP03-330-1		0.5					
Parameter	Units	Federal CCME Guidelines		SQRs General		CEQG ^{a,b} RL																									
Metals																															
Aluminum (Al)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1660	
Arsenic (As) ^d	µg/g	12	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
Barium (Ba)	µg/g	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34.3	
Beryllium (Be)	µg/g	4 ^e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	
Bismuth (Bi)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.8	
Boron (B)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	
Cadmium (Cd)	µg/g	50	26.1	20.3	59.8	2.7	2.2	19.5	72.3	5.7	33.2	1.9	61.2	16.3	12	16500	1.2	-	-	-	-	-	-	-	-	-	-	-	-	1.2	
Calcium (Ca)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.4	
Chromium (Cr)	µg/g	64 ^e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	
Cobalt (Co)	µg/g	50 ^e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.3	
Copper (Cu)	µg/g	5900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39400	
Iron (Fe)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70.1	
Lead (Pb)	µg/g	1050	927	680	1210	201	97.9	549	2230	307	522	120	1810	532	6	55.9	63700	356	-	-	-	-	-	-	-	-	-	-	-	-	
Lithium (Li)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	96900	
Magnesium (Mg)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	356	
Manganese (Mn)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.6	
Molybdenum (Mo)	µg/g	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	
Nickel (Ni)	µg/g	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.1	
Phosphorus (P)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	102	
Potassium (K)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	
Silicon (Si)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	459	
Silver (Ag)	µg/g	18000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	
Sodium (Na)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	199	
Strontium (Sr)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37.3	
Sulfur (S)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2570	
Thallium (Tl) ^d	µg/g	1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	
Tin (Sn)	µg/g	50 ^e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.8	
Titanium (Ti)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.7	
Tungsten (W)	µg/g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	
Vanadium (V)	µg/g	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	
Zinc (Zn)	µg/g	23400	8240	6050	21200	1250	912	6180	22000	1720	12600	683	21600	5790	989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	989

Associated Maxxam Analytics files: A330703, A331607, A331738, A351838, A400664, A401101.

BOLD Concentration greater than or equal to the CCME generic soil CEQG for Residential/Parkland (RL) land use.
Concentration greater than or equal to the Nonstrick Mine's site-specific SQRs for the General Mine Area.

Notes:
< = Less than the detection limit indicated.
- = Analysis not conducted, or no guideline.

- a. *Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathway.*
b. *Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.*
c. *Interim Remediation Criteria for soil. Soil Quality Guideline based on the CCME soil protocol have not yet been developed for a given chemical.*
d. *Only results obtained using graphite furnace atomic absorption (F&A) method reported for hydride metals (As, Sb, Se, Tl).*

Table 5. General Mine Area, Summary of Analytical Results for Metals in Soil

Gartner Lee	Location:		Warehouse Yard														Industrial Complex				Oceanview				K-BaseLine		Road (09 Adit to Oceanview)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Parameter	Units	Federal CCME Guidelines		Sample ID:		Sample Date:		Sample from (m):		Sample to (m):		TP03-329-1		TP03-329-2		TP03-331-1		TP03-333-1		TP03-333-2		TP03-334-1		TP03-335-1		TP03-336-1		TP03-336-2		TP03-342-1		TP03-337-1		TP03-345-1		TP03-346-1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			SQORs General	Mine Area	CEQG ^{a,b}	RL	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8/12/03	8

Associated Maxxam Analytics files: A330303, A331607, A331738, A351838, A400664, A401101.

BOLD Concentration greater than or equal to the CCME generic soil CEQG for Residential/Parkland (RL) land use.
Concentration greater than or equal to the Nanisivik Mine's site-specific SQORs for the General Mine Area.

Notes:

< = Less than the detection limit indicated.
- = Analysis not conducted, or no guideline.

- a Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathway.
b Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.
c Interim Remediation Criteria for soil. Soil Quality Guideline based on the CCME soil protocol have not yet been developed for a given chemical.
d Only results obtained using graphite furnace atomic absorption (F4A) method reported for hydride metals (As, Sb, Se, Tl).

Table 5. General Mine Area, Summary of Analytical Results for Metals in Soil

 Gartner Lee		Location:		Road (09 Adit to Oceanview)										Road (09 Adit to Area14)										Road (09Adit to WTD A)		Landfill
		Sample ID:		TP03-347-1	TP03-348-1	TP03-351-1	TP03-352-1	TP03-353-1	TP03-354-1	TP03-355-1	TP03-357-1	TP03-358-1	TP03-359-1	TP03-360-1	TP03-362-1	TP03-386-1										
		Sample Date:		8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/15/03	8/15/03	8/15/03	8/15/03	8/15/03	8/15/03	8/15/03	8/15/03	8/18/03									
		Sample from (m):		0	0	0	0	0	0	0	0	0	0	0	0	0	0									
Sample to (m):		0.15	0.15	0.15	0.15	0.15	0.15	0.1	0.25	0.2	0.2	0.15	0.2	0.15	0.2											
Parameter	Units	Federal CCME Guidelines SQRORS General Mine Area	CEQG ^{a,b} RL																							
Metals																										
Aluminum (Al)	µg/g			-	-	-	-	-	16100	14200	16700	-	-	-	-	-										
Arsenic (As) ^d	µg/g	12		-	-	-	-	-	2	4	4	-	-	-	-	120										
Barium (Ba)	µg/g	500		-	-	-	-	-	53	54.5	46.3	-	-	-	-	45.5										
Beryllium (Be)	µg/g	4		-	-	-	-	-	0.6	0.5	0.6	-	-	-	-	0.7										
Bismuth (Bi)	µg/g	-		-	-	-	-	-	10.8	5.7	11.6	-	-	-	-	<2.3										
Boron (B)	µg/g	-		-	-	-	-	-	12.7	11.7	14.8	-	-	-	-	49.3										
Cadmium (Cd)	µg/g	50		10.6	4.5	1	2.1	-	<0.3	0.8	<0.3	14.8	<0.3	2.1	3.9	0.7										
Calcium (Ca)	µg/g	-		-	-	-	-	-	88300	87200	64900	-	-	-	-	45900										
Chromium (Cr)	µg/g	64		-	-	-	-	-	18.5	16.4	19.7	-	-	-	-	18.6										
Cobalt (Co)	µg/g	50		-	-	-	-	-	18.2	7.7	13.5	-	-	-	-	13										
Copper (Cu)	µg/g	5900		-	-	-	-	-	95.1	39.6	40.7	-	-	-	-	52.8										
Iron (Fe)	µg/g	-		-	-	-	-	-	25000	20100	24100	-	-	-	-	21900										
Lead (Pb)	µg/g	1050		428	234	59.6	83.8	-	73.1	175	158	689	35.4	121	61.5	71.4										
Lithium (Li)	µg/g	-		-	-	-	-	-	81.4	71.8	76.7	-	-	-	-	72.6										
Magnesium (Mg)	µg/g	-		-	-	-	-	-	65100	64600	61500	-	-	-	-	46500										
Manganese (Mn)	µg/g	-		-	-	-	-	-	367	288	348	-	-	-	-	276										
Molybdenum (Mo)	µg/g	10		-	-	-	-	-	0.7	ND	0.7	-	-	-	-	6.4										
Nickel (Ni)	µg/g	50		-	-	-	-	-	21.7	16.2	25.7	-	-	-	-	32.2										
Phosphorus (P)	µg/g	-		-	-	-	-	-	307	237	329	-	-	-	-	430										
Potassium (K)	µg/g	-		-	-	-	-	-	3090	2070	3250	-	-	-	-	3490										
Silicon (Si)	µg/g	-		-	-	-	-	-	382	389	404	-	-	-	-	953										
Silver (Ag)	µg/g	18000		-	-	-	-	-	<0.7	<0.7	<0.7	-	-	-	-	<0.7										
Sodium (Na)	µg/g	-		-	-	-	-	-	148	151	221	-	-	-	-	156										
Strontium (Sr)	µg/g	-		-	-	-	-	-	45.4	65.6	45.9	-	-	-	-	42.5										
Sulfur (S)	µg/g	-		-	-	-	-	-	2250	1860	1390	-	-	-	-	11000										
Thallium (Tl) ^d	µg/g	1		-	-	-	-	-	<1	<1	<1	-	-	-	-	-										
Tin (Sn)	µg/g	50		-	-	-	-	-	<1.8	<1.8	<1.8	-	-	-	-	<1.8										
Titanium (Ti)	µg/g	-		-	-	-	-	-	125	141	263	-	-	-	-	149										
Tungsten (W)	µg/g	-		-	-	-	-	-	<3	<3	<3	-	-	-	-	<3										
Vanadium (V)	µg/g	-		-	-	-	-	-	35.1	31.6	49.5	-	-	-	-	56.2										
Zinc (Zn)	µg/g	23400		3460	1580	383	679	-	325	542	406	5050	158	800	1480	192										
																924										

Associated Maxxam Analytics files: A330303, A331607, A331738, A351838, A400664, A401101.

BOLD Concentration greater than or equal to the CCME generic soil CEQG for Residential/Parkland (RL) land use.
Concentration greater than or equal to the Nanisivik Mine's site-specific SQORS for the General Mine Area.

Notes:
< = Less than the detection limit indicated.
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- a Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and implies the most stringent criteria based on site-specific receptors and exposure pathway.
b Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.
c Interim Remediation Criteria for soil. Soil Quality Guideline based on the CCME soil protocol have not yet been developed for a given chemical.
d Only results obtained using graphite furnace atomic absorption (F-A4) method reported for hydride metals (As, Sb, Se, Tl).

Table 5. General Mine Area, Summary of Analytical Results for Metals in Soil

 Gartner Lee	Location:		WTDA				STOL								
	Parameter	Units	Federal CCME Guidelines SQROs General Mine Area	Sample ID: Sample Date: Sample from (m): Sample to (m):	TP03-363-1	TP03-364-1	TP03-365-1	TP03-375-1	TP03-376-1	TP03-389-1	TP03-377-1	TP03-378-1	TP03-390-1	TP03-379-1	
					8/15/03	8/17/03	8/17/03	8/17/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03	8/18/03
					0	0	0	0	duplicate of	0	0	duplicate of	0	0	
				0.1	0.15	0.15	0.1	0.15	TP03-376-1	TP03-376-2	0.1	0.2	0.6		
Metals															
Aluminum (Al)	µg/g			-	-	4480	14000	39600	-	-	-	-	-	-	
Arsenic (As) ^d	µg/g		12	-	-	-	-	-	-	-	-	-	-	-	
Barium (Ba)	µg/g		500	-	-	41.3	46.6	96.2	-	-	-	-	-	-	
Beryllium (Be)	µg/g		4	-	-	0.4	0.6	1.3	-	-	-	-	-	-	
Bismuth (Bi)	µg/g		-	-	-	<2.3	3.2	<2.3	-	-	-	-	-	-	
Boron (B)	µg/g		-	-	-	4	17.6	18.9	-	-	-	-	-	-	
Cadmium (Cd)	µg/g	50	-	0.4	<0.3	0.3	0.7	<0.3	<0.3	<0.3	0.4	18.8	3	<0.3	
Calcium (Ca)	µg/g		-	-	-	78000	50300	25700	-	-	-	-	-	-	
Chromium (Cr)	µg/g		64	-	-	8.5	17.1	32.7	-	-	-	-	-	-	
Cobalt (Co)	µg/g		50	-	-	10	7.2	7.8	-	-	-	-	-	-	
Copper (Cu)	µg/g	5900	-	-	-	22.9	22.4	17.9	-	-	-	-	-	-	
Iron (Fe)	µg/g		-	-	-	21700	19700	27000	-	-	-	-	-	-	
Lead (Pb)	µg/g	1050	-	76.7	56.5	29.5	27.3	20.2	<2.5	<2.5	74.3	1070	393	17.8	
Lithium (Li)	µg/g		-	-	-	10.9	69.7	152	-	-	-	-	-	-	
Magnesium (Mg)	µg/g		-	-	-	57500	50300	106000	-	-	-	-	-	-	
Manganese (Mn)	µg/g		-	-	-	622	298	238	-	-	-	-	-	-	
Molybdenum (Mo)	µg/g		10	-	-	<0.6	<0.6	<0.6	-	-	-	-	-	-	
Nickel (Ni)	µg/g		50	-	-	15.2	16.4	14.9	-	-	-	-	-	-	
Phosphorus (P)	µg/g		-	-	-	142	234	345	-	-	-	-	-	-	
Potassium (K)	µg/g		-	-	-	466	2060	14200	-	-	-	-	-	-	
Silicon (Si)	µg/g		-	-	-	631	468	549	-	-	-	-	-	-	
Silver (Ag)	µg/g	18000	-	-	-	<0.7	<0.7	<0.7	-	-	-	-	-	-	
Sodium (Na)	µg/g		-	-	-	94.9	141	401	-	-	-	-	-	-	
Strontium (Sr)	µg/g		-	-	-	12.3	33.9	48.1	-	-	-	-	-	-	
Sulfur (S)	µg/g		-	-	-	172	594	759	-	-	-	-	-	-	
Thallium (Tl) ^d	µg/g		1	-	-	-	-	-	-	-	-	-	-	-	
Tin (Sn)	µg/g		50	-	-	<1.8	<1.8	<1.8	-	-	-	-	-	-	
Titanium (Ti)	µg/g		-	-	-	111	130	1200	-	-	-	-	-	-	
Tungsten (W)	µg/g		-	-	-	<3	3	<3	-	-	-	-	-	-	
Vanadium (V)	µg/g		130	-	-	17	33.5	47.9	-	-	-	-	-	-	
Zinc (Zn)	µg/g	23400	-	414	201	482	401	71.4	35.2	35.2	212	5540	11130	71.7	
														339	

Associated Maxxam Analytics files: A330303, A331607, A331738, A351838, A400664, A401101

BOLD Concentration greater than or equal to the CCME generic soil CEQG for Residential/Parkland (RL) land use.
Concentration greater than or equal to the Nanisivik Mine's site-specific SQROs for the General Mine Area.

Notes:
< = Less than the detection limit indicated.
- = Analysis not conducted, or no guideline.

a Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathway.
b Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.
c Interim Remediation Criteria for soil. Soil Quality Guideline based on the CCME soil protocol have not yet been developed for a given chemical.
d Only results obtained using graphite furnace atomic absorption (F4A) method reported for hydride metals (As, Sb, Se, Tl).

Table 5. General Mine Area, Summary of Analytical Results for Metals in Soil

 Gartner Lee		Location:		Road (Town to Industrial Complex)					
		Sample ID:	TP03-391-1	TP03-392-1	TP03-393-1	TP03-392-2	TP03-393-2	TP03-392-3	
Sample Date:		8/19/03	8/19/03	8/19/03	8/19/03	8/19/03	8/19/03	8/19/03	
Sample from (m):		0	0	duplicate of	0.2	duplicate of	0.4		
Sample to (m):		0.2	0.2	TP03-392-1	0.25	TP03-392-2	0.5		
Parameter	Units	Federal CCME Guidelines SOROs General Mine Area	CEQG ^{a,b}	RL					
Metals									
Aluminum (Al)	µg/g		12	-	-	-	-	6	
Arsenic (As) ^d	µg/g		500	-	-	-	-	-	
Barium (Ba)	µg/g		4	-	-	-	-	-	
Beryllium (Be)	µg/g		-	-	-	-	-	-	
Bismuth (Bi)	µg/g		-	-	-	-	-	-	
Boron (B)	µg/g		-	-	-	-	-	-	
Cadmium (Cd)	µg/g	50	-	18.5	43.1	44	22.8	29.4	
Calcium (Ca)	µg/g		-	-	-	-	-	-	
Chromium (Cr)	µg/g		64	-	-	-	-	-	
Cobalt (Co)	µg/g		50	-	-	-	-	-	
Copper (Cu)	µg/g	5900	-	-	-	-	-	-	
Iron (Fe)	µg/g		-	-	-	-	-	-	
Lead (Pb)	µg/g	1050	-	645	880	880	1260	1630	
Lithium (Li)	µg/g		-	-	-	-	-	-	
Magnesium (Mg)	µg/g		-	-	-	-	-	-	
Manganese (Mn)	µg/g		-	-	-	-	-	-	
Molybdenum (Mo)	µg/g		10	-	-	-	-	-	
Nickel (Ni)	µg/g		50	-	-	-	-	-	
Phosphorus (P)	µg/g		-	-	-	-	-	-	
Potassium (K)	µg/g		-	-	-	-	-	-	
Silicon (Si)	µg/g		-	-	-	-	-	-	
Silver (Ag)	µg/g	18000	-	-	-	-	-	-	
Sodium (Na)	µg/g		-	-	-	-	-	-	
Strontium (Sr)	µg/g		-	-	-	-	-	-	
Sulfur (S)	µg/g		-	-	-	-	-	-	
Thallium (Tl) ^d	µg/g		1	-	-	-	-	-	
Tin (Sn)	µg/g		50	-	-	-	-	<1	
Titanium (Ti)	µg/g		-	-	-	-	-	-	
Tungsten (W)	µg/g		-	-	-	-	-	-	
Vanadium (V)	µg/g		130	-	-	-	-	-	
Zinc (Zn)	µg/g	23400	-	6150	14900	15900	6580	8590	

Associated Maxxam Analytics files: A330303, A331607, A331738, A351838, A400664, A401101.

BOLD Concentration greater than or equal to the CCME generic soil CEQG for Residential/Parkland (RL) land use.
Concentration greater than or equal to the Nanisivik Mine's site-specific SQRs for the General Mine Area.

Notes:

< = Less than the detection limit indicated

- = Analysis not conducted, or no guideline

^a Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on land use activities and applies the most stringent criteria based on site-specific receptors and exposure pathways.

^b Canadian Environmental Quality Guidelines (CEQG). The site-specific factors used for determining the soil quality guideline include: soil ingestion, soil contact and nutrient cycling.

^c Interim Remediation Criteria for soil. Soil Quality Guideline based on the CCME soil protocol have not yet been developed for a given chemical.

^d Only results obtained using graphite furnace atomic absorption (FAA) method reported for hydride metals (As, Sb, Se, Tl).

Table 6. Summary of Analytical Results for Metals in Groundwater

 Gartner Lee			GROUNDWATER							
			Location:							
			Sample ID:		Sample Date:		Industrial Complex		WTDA	
Parameter	UNITS	Surface Water Guideline x 10 ^{b,c} (Groundwater)	TP02-81 2003-08-20		TP02-82 2003-08-20		BGC03-12 2003-08-19		BGC03-14 2003-08-19	
Acidity as CaCO ₃	mg/L	-	12		231		-		-	
Total Alkalinity as CaCO ₃	mg/L	-	293		168		-		87.9	
Dissolved Chloride (Cl)	mg/L	-	78.10		57.50		413		1380	
Dissolved Sulfates (SO ₄)	mg/L	-	1840		2740		1430.00		575	
Total Ammonia-N	mg/L	-	0.74		<0.5		27.9		14.1	
Total pH	pH	6.5 - 9.0	7.72		7.32		8.73		10.1	
Sulphide	mg/L	-	<0.02		<0.02		<0.02		<0.02	
Total Dissolved Solids (TDS)	mg/L	-	-		-		3140		4510	
Metals			Total ^f	Dissolved	Total ^f	Dissolved	Total ^f	Dissolved	Total ^f	Dissolved
Aluminum (Al)	mg/L	0.05 - 1	1.82	<0.04	1.14	<0.04	0.08	<0.04	0.06	<0.04
Chromium (Cr)	mg/L		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cobalt (Co)	mg/L		0.022	0.008	0.089	0.07	0.010	<0.005	<0.005	<0.005
Copper (Cu)	mg/L	0.04 ^d	0.006	<0.006	<0.004	<0.006	0.038	<0.006	0.014	<0.006
Iron (Fe)	mg/L	3	10	<0.006	8	<0.006	30	0.013	2.06	<0.006
Lead (Pb)	mg/L	0.07 ^d	0.558	<0.025	0.354	0.043	0.741	<0.025	0.517	<0.025
Lithium (Li)	mg/L		0.06	0.05	0.04	0.05	0.06	0.06	0.43	0.43
Magnesium (Mg)	mg/L		408	376	500	453	130	155	14.9	5.53
Manganese (Mn)	mg/L		1.110	0.951	5.310	4.54	0.141	0.096	0.049	<0.002
Antimony (Sb)	mg/L		0.7	0.5	0.6	0.7	0.4	0.3	0.1	0.1
Molybdenum (Mo)	mg/L	0.73	<0.006	<0.006	<0.006	<0.006	0.011	0.007	0.081	0.082
Nickel (Ni)	mg/L	1.50 ^d	0.040	0.02	0.120	0.10	<0.01	<0.01	<0.01	<0.01
Phosphorus (P)	mg/L		0.080	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Potassium (K)	mg/L		7	6	6	5	106	97.8	122	118
Selenium (Se)	mg/L	0.01 ^e	<0.033	<0.33	<0.033	<0.33	<0.033	<0.33	<0.033	<0.33
Silicon (Si)	mg/L		5.80	2.85	5.10	2.54	0.5	0.24	0.7	0.56
Silver (Ag)	mg/L	0.001 ^e	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Sodium (Na)	mg/L		10.5	7.94	7.25	5.73	80.1	76.2	95.7	95.4
Strontium (Sr)	mg/L		0.388	0.369	0.580	0.494	2.13	2.03	12.0	12.1
Sulfur (S)	mg/L		815	752	1200	1070	647	590	312	1010
Arsenic (As)	mg/L	0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Thallium (Tl)	mg/L		<0.05	<0.05	0.05	0.05	<0.05	<0.05	<0.05	0.05
Tin (Sn)	mg/L		<0.018	<0.018	0.023	<0.018	<0.018	<0.018	<0.018	<0.018
Titanium (Ti)	mg/L		0.009	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Tungsten (W)	mg/L		<0.03	<0.03	0.26	0.2	<0.03	<0.03	<0.03	<0.03
Vanadium (V)	mg/L		0.009	<0.003	0.004	<0.003	0.005	<0.003	<0.003	<0.003
Zinc (Zn)	mg/L	0.3	14.6	11.1	207	192	0.682	0.025	0.499	0.013
Barium (Ba)	mg/L		0.036	0.02	0.031	0.04	0.017	0.026	0.019	0.05
Beryllium (Be)	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bismuth (Bi)	mg/L		<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023
Boron (B)	mg/L		0.149	0.15	0.175	0.161	0.036	0.032	0.175	0.191
Cadmium (Cd)	mg/L	0.00017 ^e	0.008	<0.003	0.016	0.009	<0.003	<0.003	<0.003	<0.003
Calcium (Ca)	mg/L		523	454	636	514	612	549	1010	938

Associated Maxxam Analytics file: A331738.

BOLD Dissolved metal concentration greater than or equal to 10x the generic water CEQG for Freshwater Aquatic Life (FWAL).

Notes:

- < = Less than the detection limit indicated.
 - = Analysis not conducted, or no guideline.

* Sample was miss-numbered TP02-83 in field and on analytical file.

a Canadian Council of Ministers of the Environment (CCME) standards and guidelines provides criteria based on water use.

b Canadian Environmental Quality Guidelines (CEQG) for Freshwater Aquatic Life (FWAL) apply to surface water quality.

c Federal Water Quality Guidelines based on the CCME protocol have not been developed for metals in groundwater. Groundwater FWAL quality criteria developed for other jurisdictions (i.e. BC and Yukon) generally apply a 10-fold dilution factor to dissolved metal concentrations.

d Criteria varies with hardness. Water sampled is hard.

e Method Detection Limit (MDL) is greater than or equal to the criteria.

f No comparison made based on total metals concentrations in groundwater.

Table 7. Summary of Analytical Results for Hydrocarbons in Water

 Gartner Lee	Location: Sample ID: Sample Date:	SURFACE WATER				GROUNDWATER											
		Carpenter Shop		Industrial Complex	STOL	Landfill											
		C SHOP US	C SHOP DS			TP02-81	TP02-82*	TP03-373	TP02-95	TP02-DUP	TP02-97	TP02-100	TP02-101	TP02-102	TP03-387	LF-W SEEP	
		Parameter	Units														
Extractable Hydrocarbons																	
Total Petroleum Hydrocarbons	µg/L	<0.2	<0.2	<0.2	<0.2	1100	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	

Associated Maxxam Analytics files: A331607, A331738.

Note:

Federal Water Quality Guidelines based on the CCME protocol have not been developed for total petroleum hydrocarbons in water.

* Sample was miss-numbered TP02-83 in field and on analytical file.

Table 8: Quality Assurance/Quality Control, Summary of Analytical Results for Hydrocarbons in Soil

 Gartner Lee				Location: Sample ID: TP03-339-4 TP03-340-4 Duplicate ID: TP03-339-5 TP03-340-5		Industrial Complex TP03-329-1 TP03-329-2	Town Site TP03-370-3 TP03-364-3
Parameter	Units	MDL	PQL				
Extractable Hydrocarbons							
Fraction 2 (C10-16)							
Sample Result	mg/kg	4	20	<4	37	130	<5
Duplicate Result	mg/kg	4	20	<4	97	500	<4
RpD	%			na	89.55	117.46	na
Fraction 3 (C16-34)							
Sample Result	mg/kg	10	50	<10	<9	1300	<10
Duplicate Result	mg/kg	10	50	<10	<10	4100	<10
RpD	%			na	na	103.70	na
Fraction 4 (C34-50)							
Sample Result	mg/kg	9-10	45-50	<9	<8	87	<10
Duplicate Result	mg/kg	9-10	45-50	<9	<9	270	<9
RpD	%			na	na	102.52	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 9. Quality Assurance/Quality Control, Summary of Analytical Results for Metals in Soil

 Gartner Lee	Location:		STOL			Road		Warehouse	Industrial
	Sample ID:		TP03-376-1	TP03-376-1	TP03-378-1	TP03-392-1	TP03-392-2	TP03-329-1	TP03-330-1
	Duplicate ID:		TP03-376-1 DUP	TP03-389-1	TP03-390-1	TP03-393-1	TP03-393-2	TP03-329-2	TP03-330-2
Parameter	Units	MDL	PQL						
Metals									
Cadmium (Cd)									
Sample Result	µg/g	0.3	1.5	<0.3	<0.3	18.8	43.1	22.8	19.3
Duplicate Result	µg/g	0.3	1.5	<0.3	<0.3	3	44	29.4	4.6
RPD	%			na	na	145.0	2.1	25.3	123.0
Lead (Pb)									
Sample Result	µg/g	2.5	12.5	20.2	20.2	1070	880	1260	473
Duplicate Result	µg/g	2.5	12.5	18.2	<2.5	393	880	1630	161
RPD	%			10.4	na	93	0	26	98
Zinc (Zn)									
Sample Result	µg/g	0.3	1.5	71.4	71.4	5540	14900	6580	6760
Duplicate Result	µg/g	0.3	1.5	86.2	35.2	1130	15900	8590	1670
RPD	%			18.8	67.9	132	6	26	121

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.