

Area Description												
Location	Northeast of Main Porta	l.										
Topography	Generally flat with slight northeast.	slope to northeast towa	ards steep waste i	rock that drops off to								
Surface Drainage	Northeast. Direct precip	itation collects in secon	dary containment.									
Background	One diesel storage tank underground mining ope enhance secondary con	is present and was hist erations. The tank is sur tainment.	torically used to fu round by soil berr	iel vehicles involved in n with a synthetic liner to								
Historical Assessme	nt Information											
	Number of test pits			0								
Phase II Environmental	Number of surface soil	samples		0								
Site Assessment	Number of soil samples	analyzed		0								
(EBA, 2008) Number of soil samples with petroleum hydrocarbon impacts 0												
Number of soil samples with metal impacts 0												
Comments: Not previous closer to portal.	sly assessed, this portal f	ueling area likely didn't e	exist at this locatio	on in 2008, as there was one								
2017/2018 Environme	ental Site Assessment	t Details										
Environmental Site Ass	essment Scope											
Utility Locate SOP follow	ed?			Yes – mitigation was to de-energize power in 2017								
EM 31 Geophysics Comp	olete?			No								
Number of test pits advar	nced			3 (2017), 2 (2018)								
Number of boreholes adv	vanced			1 (2017)								
Number of hand auger lo	cations advanced			4 (2017)								
Number of soil samples s	submitted for laboratory ch	nemical analysis		11 (2017), 4 (2018)								
Number of boreholes con	npleted as groundwater m	nonitoring wells		0								
Number of historical grou	ndwater monitoring wells			0								
Number of groundwater s	amples collected			N/A								
Number of sediment and	surface soil samples colle	ected		N/A								
Geophysics Findings												
N/A												
Soil Investigation and C	onditions											
Maximum Depth of Investigation	6.1 mbgs (September 2	7, 2017)										
General Stratigraphy			1									
Description Depth from (mbgs) Depth to (mbgs) Observations												
Sand and gravel fill	0	6.1	Fill soil. Wood a near surface in	and plastic debris observed test pit 17A43TP1.								
Combustible Vapour Co	oncentrations (CVC)											
Ranged from less than 10) parts per million by volu	me (ppmv) to 107.5 ppr	nv in soil sample	17A43TP2-1								
Groundwater Condition	S											
Depth to Groundwater	Depth to Groundwater N/A											

AEC 43: Portal Fueling Station



AEC 43: Portal Fueling Station

Free Product N/A
2017/2018 Environmental Site Assessment Results Summary
 Figure A43-1 shows borehole, hand auger, and test pit locations.
 Figure A43-2 shows nearby groundwater monitoring locations at other AECs.
 Table A43-1 summarizes soil lab results relative to guidelines and management limits.
General Site Observations
 The synthetic liner in berm appeared to be in good condition. Standing water was observed in berm.
 No sheen was observed on standing water.
 A slight hydrocarbon odour was identified at depth of approximately 2.5 mbgs in borehole 17A43BH1.
Soil: Petroleum Hydrocarbons (PHCs)
2017
 Laboratory results greater than the CCME/CSR guidelines with exception of:
 Sample 17A43HA3-1 at depth of 0.3 mbgs contained PHCs less than guidelines.
 Sample 17A43TP3-1E at depth of 0.25 mbgs contained PAHs less than guidelines.
In addition, one soil sample 17A43TP2-1 at a depth of 0.25 m contained PHC F2 concentration greater than the
management limits.
2018
 Two test pits (18A43TP4 and 18A43TP5) were excavated at approximately 10 m step-out distances from 17A43TP2 to delineate the PHC management limit exceedance found at 0.25 mbgs. Laboratory results from the two soil samples tested for PHCs F2-F4 at each of the two test pit locations were less than the management limits.
Soil: Metals
 Various metals exceeding CCME CEQGs including arsenic, barium, cadmium, copper, molybdenum, nickel, selenium, tin, and zinc.
The following metals also exceeded preliminary background concentrations:
 Cadmium (17A43HA2 at 0.2 mbgs, 17A43HA3 at 0.3 mbgs, 17A43HA4 at 0.2 mbgs, 17A43TP2 at 0.25 mbgs, 17A43TP3 at 2.0 mbgs).
 Selenium (17A43HA2 at 0.2 mbgs, 17A43HA3 at 0.3 mbgs, 17A43HA4 at 0.2 mbgs, 17A43TP1 at 0.15 mbgs, 17A43TP3 at 2.0 mbgs).
– Zinc (17A43HA2 at 0.2 mbgs).
Soil: Other PCOCs (PAHs, glycols)
 Laboratory results less than detection limits and guidelines.
Soil: Routine (pH)
 Laboratory results within guidelines with exception of:
 Sample 17A43TP2-1 at depth of 0.25 mbgs had pH value outside guideline range.
 Sample 17A43TP3-1E at depth of 0.25 mbgs had pH value outside guideline range.
Groundwater: Petroleum Hydrocarbons
Ν/Δ
Groundwater: Metals/Routine Parameters
Groundwater: Other PCOCs
Sealment: Petroleum Hydrocarbons)
N/A
Sediment: Metals
N/A
Sediment: Other PCOCs
N/A



AEC 43: Portal Fueling Station

Surface Water: Petroleum Hydrocarbons												
N/A												
Surface Water: Meta	ls/Nutrients											
N/A												
Surface Water: Other PCOCs												
N/A												
Grainsize Analysis												
N/A												
Potential Environmental Concerns												
Location in AEC Potential Source(s) Identified Contaminated Media Parameters Assessed and Contaminant(s) of Concern (COCs; bold & underline)												
Source(s) Contaminated Media Concern (COCs; bold & underline) Below/surrounding tank; and down- gradient of tank farm Release of diesel fuel from tank Soil Soil: Metals, petroleum hydrocarbons (PHCs), glycols, polycyclic aromatic hydrocarbons (PAHs)												
Discussion (Signif	icance of Results	;)										
 Soils: The PHC impacts in Soil found to exceed of PHC impacts greet Glycols were not de Multiple metals condition concentrations, n concentrations,	Discussion (Significance of Results) Soils: • The PHC impacts identified may be result of an historical diesel release. • Soil found to exceed the PHC management limits at 17A43TP2 has been horizontally delineated. The estimated depth of PHC impacts greater than the management limits used to calculate the contaminated soil volume is 1.0 mbgs. • Glycols were not detected and are no longer considered PCOCs in soil at this AEC. • Multiple metals concentrations exceeding both CCME CEQGs, some exceeded preliminary background concentrations and adaptive											
Attachments												
Figure A43-1 – Soil ar	nd Sediment Results											
Figure A43-2 – Groun	dwater Results											
Table A43-1 – Soil An	alytical Results											
Borehole, Hand Auge	r, and Test pit Logs											
Filolographs												







Table A43-1: Soil Analytical Results																			
AEC												AEC 43							
				Location	E	BH1	HA2	HA3	HA4	TP1	TP2		TI	>3		TP4-1	TP4-3	TP5-1	TP5-2
				Sample Depth	1.4 m	2.6 m	0.2 m	0.3 m	0.2 m	0.15 m	0.25 m	0.25 m	0.25 m	2.0 m	3.0 m	0.2 m	1.0 m	0.2 m	0.5 m
				Field ID	17A43BH1-1	17A43BH1-2	17A43HA2-1	17A43HA3-1	17A43HA4-1	17A43TP1-1	17A43TP2-1	17A43TP3-1E	17A43TP3-1W	17A43TP3-3W	17A43TP3-4W	18A43TP4-1	18A43TP4-3	18A43TP5-1	18A43TP5-2
				Sample Date	27-Sep-2017	27-Sep-2017	13-Sep-2017	13-Sep-2017	13-Sep-2017	11-Sep-2017	11-Sep-2017	11-Sep-2017	11-Sep-2017	11-Sep-2017	11-Sep-2017	27-Jun-2018	27-Jun-2018	28-Jun-2018	28-Jun-2018
			Laborato	ory Report Number	8783870	8783875	8737280	8737282	8737283	8732136	8732183	8732184	8732186	8732192	8732199	18Y357306	18Y357306	18Y357306	18Y357306
		0011-1-2	Lab	oratory Sample ID	17Y267774	17Y267774	17Y262351	17Y262351	17Y262351	17Y261701	17Y261701	17Y261701	17Y261701	17Y261701	17Y261701	9372357	9372359	9372360	9372361
Parameter	Unit	CCME and	Concontration ⁴	l imite ⁵															
Physical Parameters		I NWI CSK	ooncentration	Linits	1														
pH	pH Units	6-8	-	-	-	-	7.5	7.31	7.26	7.24	11.7	8.61	7.85	7.09	7.82	-	-	-	-
Moisture	%	-	-	-	2.75	3.4	7.58	8.55	5.35	10	11.9	3.02	6.45	-	-	5.3	5.7	7.8	7.9
Metals									,		,								
Antimony	mg/kg	20	-	-	-	-	0.3	4.7	0.5	1.5	1.5	<0.1	0.3	0.3	0.2	-	-	-	-
Arsenic	mg/kg	12	64	•	-	-	6.9	30.4	5.4	8.6	6.6	0.6	5.8	<u>18.8</u>	3.8	-	-	-	-
Banum	mg/kg	500	940	-	-	-	129	0.7	170	1.4	12	25.9	105	08.9 1.4	43.9	-	-	-	-
Cadmium	ma/ka	1.4	2.8	-	-	-	4.81	3.07	3.29	2.36	3.72	0.39	1.45	2.92	0.23	-	-	-	-
Chromium	mg/kg	64	-	-	-	-	13	22	15	18	20	2	10	7	26	-	-	-	-
Cobalt	mg/kg	40	-	-	-	-	17.2	25.5	15.9	13.7	11.5	2.6	13.6	36	12.7	-	-	-	-
Copper	mg/kg	63	-	-	-	-	759	266	<u>681</u>	<u>446</u>	373	53.4	<u>443</u>	<u>1170</u>	<u>98.9</u>	-	-	-	-
Lead	mg/kg	70	-	-	-	-	11.8	25.6	10.5	15.2	11.3	8	16	8.3	15.3	-	-	-	-
Molybdenum	mg/kg	6.6	- 10	-	-	-	1.3	1.07	0.52	1.11	1.32	0.62	1.43	0.32	0.06	-	-	-	-
Nickel	ma/kg	45	72	-	-		11.1	<u>9.9</u> 69.1	14.1	<u>0.1</u> 17.5	<u>5.7</u> 15.6	3.3	8.4	6.2	22.7	-	-	-	-
Selenium	mg/kg	1	1.7	-	-	-	2.7	2.5	2	<u>2.2</u>	<u>1.7</u>	<u>1.3</u>	<u>1.7</u>	<u>4.5</u>	0.6	-	-	-	-
Silver	mg/kg	20	-	-	-	-	0.7	<0.5	0.6	0.5	<0.5	<0.5	<0.5	1	<0.5	-	-	-	-
Thallium	mg/kg	1	-	-	-	-	0.6	0.5	0.4	0.5	0.4	<0.1	0.5	0.4	0.3	-	-	-	-
Tin	mg/kg	5	-	-	-	-	<u>5.5</u>	1	3.8	3.1	4.4	0.6	4.1	3.8	1.9	-	-	-	-
Vanadium	mg/kg	130	- 160	-	-	-	3.3	2.7	25	4.0	2.0	3	3.2	2.4	31	-	-	-	-
Zinc	mg/kg	200	462	-	-	-	472	445	318	248	367	37	160	240	71	-	-	-	-
Particle Size								·	· <u> </u>		· <u> </u>								
>75 µm	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87
Grain Size	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Coarse
Petroleum Hydrocarbons	ma/ka	0.03	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-		-	-	-	-
Toluene	mg/kg	0.00	-	-	<0.000	<0.000	<0.000	<0.05	<0.000	<0.000	<0.000	<0.000	<0.05	-	-	-	-	-	-
Ethylbenzene	mg/kg	0.082	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.13	<0.01	<0.01	-	-	-	-	-	-
Xylene (m)	mg/kg	-	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.46	<0.02	<0.02	-	-	-	-	-	-
Xylene (o)	mg/kg	-	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.37	<0.02	<0.02	-	-	-	-	-	-
Xylenes Total	mg/kg	0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.83	<0.05	<0.05	-	-	-	-	-	-
F1 (C ₆ -C ₁₀) F1 (C ₇ -C ₁₀) - BTEX	mg/kg	30	-	- 700	<10	<10	<10	<10	<10	<10	54	<10	<10	-	-	-	-	-	-
$F_2(C_{10}-C^{16})$	mg/kg	150	-	1000	22	<20	<20	<20	81	<20	5630	<20	<20	-	-	<20	112	<20	<20
F3 (C ₁₆ -C ₃₄)	mg/kg	300	-	2500	467	438	<u>538</u>	134	<u>959</u>	489	1790	170	<u>578</u>	-	-	215	233	232	<u>370</u>
F4 (C ₃₄ -C ₅₀)	mg/kg	2800	-	10,000	210	212	288	44	662	283	138	73	274	-	-	128	132	92	159
Glycols						1													
Dietnylene glycol	mg/kg	- 960	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	-	-	-	-	-	-
Propylene glycol	mg/kg		-				<10	<10	<10	<10	<10	<10	<10		-		-		-
Tetraethylene Glycol	mg/kg	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	-	-	-	-	-	-
Triethylene Glycol	mg/kg	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	-		-	-	-	-
Polycyclic Aromatic Hydrocarbons (PAHs)						1													
B(a)P Total Potency Equivalent	mg/kg	0.6	-	•	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-
Acenaphthene	mg/kg		-		-	-	<0.005	<0.005	<0.005	<0.005	<0.5	<0.005	<0.005		-				-
Acenaphthylene	mg/kg	-	-	-	-	-	<0.005	< 0.005	<0.005	< 0.005	<0.5	< 0.005	< 0.005	-		-	-	-	-
Anthracene	mg/kg	2.5	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.4	<0.004	<0.004	-	-	-	-	-	-
Benz(a)anthracene	mg/kg	0.1	-	-	-	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	-	-	-	-
Benzo(a) pyrene	mg/kg	0.1	-	-	-	-	<0.03	< 0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	-	-	-	-	-
Benzo(b)ildoranthene	mg/kg	0.1	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		-		-	-	-
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	-	<0.05	< 0.05	<0.05	< 0.05	<0.05	< 0.05	< 0.05	-	-	-	-	-	-
Benzo(j)fluoranthene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-		-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-
Chrysene	mg/kg	- 0.1	-	-	-	-	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	< 0.05	-	-	-	-	-	-
Dibenz(a,n)anthracene	mg/kg	0.1	-	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-
Fluorene	mg/kg			-	-	-	<0.02	<0.02	<0.02	<0.02	<2	<0.02	<0.02			-	-	-	
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	-	-	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	-	-	-	-	-
1-Methylnaphthalene	mg/kg	-	-	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.5	<0.005	<0.005	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	- 0.012	-	-	-		<0.005	<0.005	<0.005	<0.005	<0.5	<0.005	<0.005	-	-	-	-	-	-
Phenanthrene	ma/kg	0.013	-	-	-	-	<0.02	<0.005	<0.02	<0.02	<2	<0.02	<0.005	-	-	-	-	-	-
Pyrene	mg/kg	0.1	-	-	-	-	<0.01	<0.01	<0.01	< 0.01	0.01	<0.01	<0.01	-	-	-	-	-	-

 Notes:

 1 Canadian Council of Ministers of the Environment (CCME) Canada-Wide Standards (CWS) for Petroleum Hydrocarbons (PHC) in Soil (CCME 2008), for coarse textured soils under Agricultural and Residential/Parkland soils

 2 Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (CEQG) - Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME 1999), for coarse textured soils under Agricultural and Residential/Parkland soils

 3 Nothwest Territories Environmental Guideline for Contaminated Site Remediation (NWT CSR 2003), for coarse textured soils under Agricultural and Residential/Parkland land use

 4 Preliminary Background Concentration

 5 Canadian Council of Ministers of the Environment (CCME) (2008). Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil Technical Supplement, for coarse textured soil under Agricultural land use, management limit pathway only

 EQL - Exceeds Preliminary Background Concentration

 5 Canadian Council of Ministers of the Environment (CCME) (2008). Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil Technical Supplement, for coarse textured soil under Agricultural land use, management limit pathway only

 EQL - Exceeds Preliminary Background Concentration

 Shaded - Exceeds Preliminary Background Concentration

 Shaded - Exceeds Management Limits

 Italie - Laboratory detection limit is greater than one or more referenced guidelines

 - Not analyzed or no applicable standard/guideline

</tabu/>



	North American		Borehole	Ν	lo:	17A43	3H'	3H1				
1	Гu	ngsten Corporation	Project: Phase III Environ	men	tal Site	e Assessment	Projec	t No: ENW.WENW03039-02 T	ask 00)2.2.2.6		
		l td	Location: Cantung Mine				Grour	nd Elev: 1191.148 m				
		Ltd.	Tungsten, Northwest Terr	itorie	es		UTM:	539868.542 E; 6871089.999 N	l; Z 9			
	q			ype	mber					u		
Depth (m)	Metho	Description		Sample 1	Sample Nu	Vapour readings (r	vmag	Comments	Backfil	Elevati (m)		
0			arou fino to modium cond			50 100 150"	200			1404 -		
		and gravel	, grey, fine to medium sand									
		- hydrocarbon odour		/	1-1					1190-		
2		- very slight hydrocarbon odour		/	1-2	•				1189-		
3	Sonic	- brown								1188-		
4		- grey								1187		
5				/	1-3	••••••				1186-		
6		- moist, brown								1185-		
- 7		Note: Backfilled at completion								-		
										1184-		
8										1183-		
9										1182		
10										1181-		
11 										1180-		
12										1179-		
13 										1178-		
- - - - - - - - - - - - - - - - - - -										1177-		
- 15												
			Contractor: Boart Longye	ar			Comp	letion Depth: 6.1 m				
	τ.	TETRA TECH	Drilling Rig Type: Track N	loun	ted		Start I	Date: 2017 September 27				
'		•]	Logged By: MG				Completion Date: 2017 September 27					
			Reviewed By: JW				Page	Page 1 of 1				

		North American	Testpit N	0:	1	7A43TP	1	1				
l 1	.	ngsten Corporation	Project: Phase III Environ	men	tal Site	Assessment	Project No: ENW.WENW03039-02 Task 002.2					
	u		Location: Cantung Mine				Groun	nd Flev: 1191 733 m	don of	02.2.2.0		
		Llu.	Tungsten Northwest Terr	ritorie	s		UTM	539857 931 E 6871098 868 N	J. 7 9			
							01111.		, 20			
Depth (m)	Method	Soil Description		Sample Type	Sample Number	■ Vapour readings (p	pmv) ■ 200	Notes and Comments	Backfill	Elevation (m)		
-		SAND (FILL) - silty, some gravel, trace to some clay, da (300 mm thick) - oxides, metal, wood and plastic debris	mp to moist, dense, grey,		1-1							
-		GRAVEL (FILL) - sandy, some silt, some cobbles, trace (200 mm thick) COBBLES (FILL) - some sand, some gravel, trace bould	clay, damp, dense, brown, lers, damp, dense, brown							- - - 1191		
- 1 - -	vated	- some boulders			1-2	•						
- - - - - -	Excav	SAND (TAILINGS) - silty, some clay, trace gravel, trace grey	cobbles, damp, soft, reddish		1-3					- - 1190— -		
-		GRAVEL (FILL) - sandy, some cobbles, some silt, trace	clay, damp, dense, grey		1-4							
- - - 3 -		END OF TESTPIT (2.7 metres) Note: Backfilled at completion								1189— - - - -		
- - - -										- - - 1188— -		
- 4 - - -												
- - - - 5			1							- 1187— - -		
			Contractor: NATC				Comp	letion Depth: 2.7 m				
		TETRA TECH	Drilling Rig Type: Rubber	Tire	backh	00	Start [Date: 2017 September 11				
	U		Logged By: NH				Completion Date: 2017 September 11					
			Reviewed By: JW	_	_		Page	Page 1 of 1				

		North American	Testpit No) :	1	7A43TP2	2				
T	ัน	ngsten Corporation	Project: Phase III Environ	ment	tal Site	Assessment	Projec	t No: ENW.WENW03039-02 1	Fask 00)2.2.2.6	
		Ltd.	Location: Cantung Mine				Groun	d Elev: 1191.935 m			
		= (4)	Tungsten, Northwest Terri	itorie	s		UTM:	M: 539856.187 E; 6871091.615 N; Z 9			
Depth (m)	Method	Soil Description		Sample Type	Sample Number	■ Vapour readings (pp	omv) 🗖	Notes and Comments	Backfill	Elevation (m)	
0	g	GRAVEL (FILL) - some sand, trace silt, damp, loose, gre	9V			50 100 150 2	200			-	
- - -	Excavate	- liner, rebar CONCRETE SLAB END OF TESTPIT (0.4 metres) Note: Stopped due to refusal			2-1					- - -	
- - - 1		Backfilled at completion								- - - 1191— -	
- - - -										-	
- - - 2 -										- 1190— - -	
-										-	
- 3 - - -										1189 - - -	
- - - -										- - - 1188—	
- - -										-	
- - - - 5							1			- - - 1187—	
			Contractor: NATC	 -			Comp	letion Depth: 0.4 m			
		TETRA TECH	Drilling Rig Type: Rubber	Fire	backh	106	Start [Date: 2017 September 11			
	-		Logged By: NH				Completion Date: 2017 September 11				
		-	Keviewed By: JW				Page	TOT			

		North American	Testpit No	o:	17	7A43TP	3				
Г	โม	ngsten Corporation	Project: Phase III Environ	men	tal Site	Assessment	Project No: ENW.WENW03039-02 Task 002.2				
•	<u> </u>	l td	Location: Cantung Mine	-			Groun	d Elev: 1191.457 m			
		Llu.	Tungsten. Northwest Terri	itorie	es		UTM:	539861.523 E: 6871088.32 N:	Z 9		
							-	, , , , , , , , , , , , , , , , , , , ,	-		
Depth (m)	Method	Soil Description		Sample Type	Sample Number	■ Vapour readings (p	pmv) 🗖	Notes and Comments	Backfill	Elevation (m)	
0		SAND (FILL) - sitty some gravel trace cobbles damp	very soft (100 mm thick)			50 100 150	200				
- - - - - -		GRAVEL (FILL) - sandy, some silt, some cobbles, trace east side of testpit - weathered grey rock, weak COBBLES (WASTE ROCK FILL) - some sand, some gri brown, wire and plastic liner debris	clay, damp, dense, brown, avel, trace silt, damp, dense,		3-1E 3-1W					- - - 1191— - - - -	
	Excavated				3-3E	•				- - - 1190— - - - - -	
- - - - - - - - - - - -		GRAVEL (FILL) - sandy, some cobbles, trace silt, damp.	dense, brown		3-3W 3-4E∎					- - - 1189 - - - - - -	
- - - - - -		Note: Stopped due to reach of equipment Backfilled at completion								- - - - 1188 - - - -	
- 4 										- - - - 1187 - - - - - - - - - - -	
5			Contractor: NATC	1			Comp	letion Depth: 3 m			
			Drilling Ria Type: Rubber	Tire	backh	 0e	Start F	Date: 2017 September 11			
			Logged By: NH			Completion Date: 2017 September 11					
	_		Reviewed Bv: JW				Page 1 of 1				

		North American	Testpit No) :	1	7A4	3H	A1					
l 1	โน	ngsten Corporation	Project: Phase III Environ	men	tal Site	e Assessn	nent	Proje	ect No: ENW.WENW03039-02	Task 00	02.2.2.6		
		L td	Location: Cantung Mine					Grou	Ind Elev: 1191.985 m				
			Tungsten, Northwest Terri	itorie	es			UTM	: 539851.705 E; 6871087.891 N	N; Z 9			
Depth (m)	Method	Soil Description		Sample Type	Sample Number	■ Vapou	ır readinç	gs (ppmv)∎	Notes and Comments	Backfill	Elevation (m)		
0		GRAVEL (FILL) - sandy some silt trace cobbles damp	loose arev	-		50	100 1	50 200					
-	d auge		10000, groy		1-1								
Ē	-lan	END OF AUGER HOLE (0.3 metres) Note: Backfilled at completion									-		
- - - - -											- - - 1191—		
- - - -													
-											-		
- 2 - - - - -											1190— - - - - -		
- - - 3 - - -											- - 1189— - - -		
- - - - - - -											- - - 1188- - -		
-											-		
5			Contractor:	1	I	1		Com	pletion Depth: 0.3 m	1	1187—		
			Drilling Rig Type:					Start	Date: 2017 September 13				
			Logged By: NH					Com	pletion Date: 2017 September	13			
	_		Reviewed By: JW						Page 1 of 1				

	North American		Testpit No):	1	74	43	3HA	\2	2					
l 1	Γu	ngsten Corporation	Project: Phase III Environr	nen	tal Site	e Asse	essmer	nt	Projec	ct No: ENW.WENW03039-02 1	Task 00)2.2.2.6			
			Location: Cantung Mine						Grour	nd Elev: 1192.543 m					
		Llu.	Tungsten, Northwest Terri	torie	es				UTM:	539844.461 E; 6871089.835 N	V; Z 9				
Depth (m)	Method	Soil Description		Sample Type	ample Number					Notes and Comments	Backfill	Elevation (m)			
0					05	■Va	apour re 50 10	eadings ()0 150	ppmv) 🔳 200						
-	uger	SAND (FILL) - gravelly, some silt, trace clay, moist, den	se, grey	$\overline{\ }$	2-1	•						_			
-	Hand a	END OF AUGER HOLE (0.3 metres) Note: Backfilled at completion										- - 1192—			
- - - - 1 -												-			
- - -												- - 1191			
- - - - 2 -												-			
-												- - - 1190			
- - - 3 -												-			
-												- - 1189— - - -			
- 4 - - -															
- - - - 5															
		۲	Contractor:						Comp	letion Depth: 0.3 m					
		TETRA TECH	Drilling Rig Type:						Start I	Date: 2017 September 13					
	U		Logged By: JW						Comp	letion Date: 2017 September 1	13				
			Reviewed By: JW						Page	Page 1 of 1					

		North American	Testpit No) :	1	7A43	3HA	3			
1	Гu	ngsten Corporation	Project: Phase III Environr	men	tal Site	Assessme	nt	Projec	zt No: ENW.WENW03039-02 T	ask 00)2.2.2.6
-		Itd	Location: Cantung Mine					Grour	nd Elev: 1191.955 m		
		Etd.	Tungsten, Northwest Terri	torie	es			UTM:	539848.558 E; 6871081.136 N	;Z9	
Depth (m)	Method	Soil Description		Sample Type	Sample Number	■ Vapour r	eadings (p	omv) 🗖	Notes and Comments	Backfill	Elevation (m)
0	<u> </u>	SAND (FILL) - gravelly, some silt, trace day, damp, den	se red from oxidation			50 10	00 150 2	200			
- - -	Hand auge	END OF AUGER HOLE (0.3 metres) Note: Backfilled at completion			3-1 I			-			-
- - - 1											- - 1191— -
-											
- - - 2 - -											- - 1190— - -
-											
- - - -											1189— - - -
- - - -											- - - 1188-
- 4 - - -											
- - - - 5								T			- - - 1187—
			Contractor:					Comp	letion Depth: 0.3 m		
		TETRA TECH	Drilling Rig Type:					Start I	Date: 2017 September 14		
			Logged By: JW					Completion Date: 2017 September 14			
			Reviewed By: JW					Page	1 of 1		

	North American		Testpit No) :	1	7A4	43	HA	4					
L 1	ัน	ngsten Corporation	Project: Phase III Environ	men	tal Site	e Assess	sment		Projec	t No: ENW.WENW03039-02 1	ask 00)2.2.2.6		
		J td	Location: Cantung Mine						Groun	d Elev: 1191.588 m				
			Tungsten, Northwest Terr	itorie	es				UTM:	539854.807 E; 6871084.456 N	l; Z 9			
, Depth (m)	Method	Soil Description		Sample Type	Sample Number	■ Vapo	our read	dings (pp	mv)∎	Notes and Comments	Backfill	Elevation (m)		
0	Ъ	SAND (FILL) - gravelly, some silt, trace clay, moist, dens	se, grey, trace red oxidization			50	100	130 2	.00		\square			
- - - - -	Hand aug	END OF AUGER HOLE (0.3 metres) Note: Backfilled at completion			4-1							- - - 1191 - -		
												- - - 1190- - - -		
- 2 - - - - - - - - - - - - - - - - - -												- - - - - 1189 - - - - - - -		
- - - - - - - - - - - - - -												- - - 1188— - - - - - -		
- - - - - - - - - - - - - - - - - - -			Contractor:						Сотр	letion Depth: 0.3 m		- - - - - - - -		
			Drilling Rig Type						Start F	Date: 2017 Sentember 14				
			Logaed Bv: .IW						Comp	letion Date: 2017 Sentember 1	4			
			Logged By: JW Reviewed By: JW						Completion Date: 2017 September 14					

			Testpit No:	18	8A	43TP	4				
		North American	Project: Phase III Environmental	Site	Asse	ssment	Project No: I	ENW.WENW03039-03			
		Tungsten Corp.	Location: Cantung Mine				Ground Elev	/: 1191.286 m			
			Cantung, Northwest Territories				UTM: 53986	6.626 E; 6871092.299 N; Z 9			
Depth (m)	Method	Soil Descriptior	٦	Sample Type	Sample Number	Vapour readi	nas (pomv)	Notes and Comments	Elevation (m)		
0		CDAV/EL (EUL), some cond wall graded maint group	modium angular graval (100 mm			100 200	300 400				
-		GRAVEL (FILL) - some sand, weil graded, moist, grey, i thick) GRAVEL AND SAND - cobbly, well graded, moist, grey,	angular cobbles to 250 mm diameter						1191.2 -		
- 0.2					4-1 I				- 1191.0–		
- 0.4									-		
_	Excavated				4-2				1190.8 -		
- 0.6									1190.6 -		
- 0.8					4-3	-			- 1190.4 -		
- 1.0		END OF TESTPIT (1.00 metre) Location: 11 m east of diesel pump Note: Testpit location surveyed by Tetra Tech on Aug	ust 28, 2018				<u></u>		 1190.2 -		
- 1.2									1190.0-		
- 1.4 <u>1.5</u>									- 1189.8 -		
			Contractor: NATC				Completion	Depth: 1 m			
		TETRA TECH	Drilling Rig Type: Backhoe		Start Date: 2018 June 27						
	U		Logged By: BB					Completion Date: 2018 June 27			
			Reviewed By: SS				Page 1 of 1				

			Testpit No:	18	8A	43TP	5					
		North American	Project: Phase III Environmenta	l Site	Asse	ssment	Project No: B	ENW.WENW03039-03				
		Tungsten Corp.	Location: Cantung Mine				Ground Elev	r: 1192.35 m				
			Cantung, Northwest Territories				UTM: 53985	3.485 E; 6871103.226 N; Z 9				
Depth (m)	Method	Soil Descriptior	n	Sample Type	Sample Number		<i>,</i> , _	Notes and Comments	Elevation (m)			
0						■ vapour readi 100 200	ngs (ppmv) 🔳 300 400					
- 0.2		 GRAVEL (FILL) - some sand, well graded, moist, grey, r sandy, cobbly, some boulders, well graded, moist, gr gravel, cobbles to 300 mm diameter, boulders to 800 	medium angular gravel rey to light brown, fine to coarse) mm diameter		5-1				- 1192.2 - -			
- 0.4	ated								1192.0-			
- 0.6	Excav				5-2				1191.8 -			
- 0.8									1191.6 -			
- 1.0		END OF TESTPIT (1.00 metre) Location: 1 m north of middle of tank berm on north s Note: Testnit location surveyed by Tetra Tech on Auc	ide		5-3	•			1191.4 -			
- 1.2			,,						1191.2 -			
- 1.4									1191.0-			
1.5			1				1					
			Contractor: NATC				Completion	Depth: 1 m				
	٢	TETRA TECH	Drilling Rig Type: Backhoe					Start Date: 2018 June 28				
	U	•]	Logged By: BB		Completion Date: 2018 June 28							
			Reviewed By: SS		Page 1 of 1							



Photo 1: Facing northwest. Portal fueling station AST visible in centre of photo. Stakes indicate hand auger locations. (September 19, 2017)



Photo 2: Facing northwest. Portal fuel station AST is seen on the right. Main portal visible to the left. (September 5, 2017)





Appendix A44 - Hazardous Materials Inventory

CanTung Minesite Northwest Territories Property Type: Industrial

(General Description	Location	Material Description		Sample Collection & Analysis						
Floor	Building	Sample Location	Material Type & Specific Description	Quantity	Units	Cond.	Friable	Field	Date	Analytical	Comments
1	House # 63	Main Floor	(ACM) Brown Block Pattern Linoleum	600	sq. ft	Good	Yes	15-016	2008	85 - 90% CH	Removal by third party
Exterior	House # 63	Exterior	(ACM) Transite Paneling	1600	sq. ft	Good	No	N/A	2008	20 - 30% CH	Visually similar to 15- 001
3	House # 63	Upstairs	(ACM) Beige Pattern Linoleum	400	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-011
Exterior	House # 63	Trim	(LBP) Exterior White Paint	100	sq. ft	Poor	N/A	N/A	2008	16,700 ppm	Visually similar to LBP- 001 and 69-01 (non-
Exterior	House # 63	N/A	Leachable lead riser on roof of house	1	ner	Good	N/A	N/A	2008	N/A	Visually noted
1	House # 63	Main Floor	Mercury Containing Ampoule	1	ner	Good	N/A	N/A	2008	N/A	Floading Hotod
Interior	House # 63	Throughout building	Mercury Vapor in Eluorescent Lights	12	per	Good	N/A	N/A	2018	N/A	
Interior	House # 63	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	6	per	Good	N/A	N/A	2018	N/A	
TB	House # 63	Throughout building	Radioactive Smoke Detectors	3	per	Good	N/A	N/A	2008	N/A	Containing Americium
2	House # 64	Main Floor	(ACM) Checkered Linoleum	400	sa. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-002 and 21-044
Exterior	House # 64	Exterior	(ACM) Transite Paneling	1600	sa, ft	Good	No	N/A	42979	20 - 30% CH	Visually similar to 15- 001
Basement	House # 64	Basement Furnace	(ACM) Paper Gasket (3"x1'x5mm) inside furnace	1	per	Good	Yes	64-01	42979	20 - 30% CH	
Exterior	House # 64	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	Visually similar to LBP- 001 and 69-01 (non- leachable)
1	House # 64	Main Floor	Mercury Containing Ampoule	1	per	Good	N/A	N/A	2008	N/A	
ТВ	House # 64	Throughout building	Radioactive Smoke Detectors	4	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 64	N/A	Leachable lead riser on roof of house	1	per	Good	N/A	N/A	N/A	N/A	Visually noted
2	House # 65	Main Floor	(ACM) Brick Pattern Linoleum	600	sa. ft	Good	Yes	N/A	N/A	N/A	Visually similar to 15-009 and 16-002
Exterior	House # 65	Exterior	(ACM) Transite Paneling	1600	sq. ft	Good	No	N/A	N/A	20 - 30% CH	Visually similar to 15- 001
Exterior	House # 65	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	N/A	16,700 ppm	Visually similar to LBP- 001 and 69-01 (non-
Basement	House # 65	Floor Paint	(LBP) Basement Brown Floor Paint	400	N/A	Poor	N/A	LBP-004	N/A	1,930 ppm	Duplicate sample is 65-P01 (0.07 mg/L non-
1		Main Eleor	Moreury Containing Ampoulo	2	por	Good	NI/A	N/A	2009	N/A	leachable)
TP	House # 65	Maili Floor	Mercury Containing Ampoule	2	per	Good	N/A	N/A	2008	N/A	
TR	House # 65	Throughout building	Polychlorinated Binhonyls (PCB) in Light Ballasts	0	per	Good	N/A	N/A N/A	2018	N/A N/A	
TB	House # 65	Throughout building	Padioactivo Smoko Dotectore	4	per	Good	N/A	N/A	2018	N/A	Containing Amoricium
Exterior	House # 65	N/A	Leachable lead riser on roof of house	1	ner	Good	N/A	N/A	2008	N/A	Visually noted
2	House # 66	Unstairs Bedroom	(ACM) 8" x 8" Green Vinyl Floor Tile	400	sa ft	Good	No	15-014	2008	1 - 5% CH	Visually noted
Exterior	House # 66	Exterior	(ACM) Transite Paneling	1600	sq. ft	Good	No	N/A	2008	20 - 30% CH	Visually similar to 15- 001
2	House # 66	Main Floor	(ACM) Brick Pattern Linoleum	600	sa. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-009 and 16-002
						_					Visually similar to LBP-001 and 69-01 (non-
Exterior	House # 66	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	leachable)
											Duplicate sample is 66-P01B (0.09 mg/L is
Interior	House # 66	Kitchen	(LBP) Beige/White Drywall	60	sa. ft	Moderate	N/A	66-P01A	43007	3.700 ppm	non-leachable)
1	House # 66	Main Floor	Mercury Containing Ampoule	1	per	Good	N/A	N/A	2008	N/A	
ТВ	House # 66	Throughout building	Mercury Vapor in Fluorescent Lights	13	per	Good	N/A	N/A	2018	N/A	
TB	House # 66	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	9	per	Good	N/A	N/A	2018	N/A	
Exterior	House # 66	N/A	Leachable lead riser on roof of house	1	per	Good	N/A	N/A	2008	N/A	Visually noted
1	House # 67	Main Floor	(ACM) Brick Pattern Linoleum	600	sq. ft	Good	Yes	15-009	2008	85 - 90% CH	-
2	House # 67	Upstairs	(ACM) Beige Pattern Linoleum	400	sq. ft	Good	Yes	15-011	2008	85 - 90% CH	
Exterior	House # 67	Exterior	(ACM) Transite Paneling	1600	sq. ft	Good	No	N/A	2008	20 - 30% CH	Visually similar to 15- 001
1	House # 67	Ceiling Lights	(ACM) Light Fixture Backing, Layer 2 Grey Fibrous	4	House	Good	Yes	67-01	2008	60 - 70% CH	
Exterior	House # 67	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	Visually similar to LBP- 001 and 69-01 (non-
TR	House # 67	Throughout building	Mercury Vapor in Eluorescent Lights	8	por	Good	N/A	N/A	2000	N/A	leachable)
TB	House # 67	Throughout building	Polychlorinated Binhenyls (PCB) in Light Ballasts	4	per	Good	N/A	N/A	2018	N/A	
TB	House # 67	Throughout building	Radioactive Smoke Detectors	3	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 67	N/A	Leachable lead riser on roof of house	1	ner	Good	N/A	N/A	2008	N/A	Visually noted
1	House # 68	Living Room	(ACM) Yellow Vinyl Flooring	600	sa ft	Good	No	15-005	2008	85 - 90% CH	Floading Hotod
1	House # 68	Unstairs	(ACM) Speckled Elooring	400	sq. ft	Good	Yes	15-006	2008	85 - 90% CH	
Exterior	House # 68	Exterior	(ACM) Transite Paneling	1600	sq. ft	Good	No	N/A	2008	20 - 30% CH	Visually similar to 15- 001
Exterior	House # 68	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	Visually similar to LBP- 001 and 69-01 (non-
4	House # 69	Main Floor	Moreury Containing Amnaula	4		Cood	NI/A	NI/A	2009	NI/A	leachable)
Interior	House # 68	Mail Floor	Mercury Containing Ampoule	0	per	Good	N/A	N/A	2008	N/A	
Interior	House # 60	Throughout building	Bolychlorinatod Binhonyle (PCP) in Light Pallacte	0 A	per	Good	N/A	N/A	2010	N/A N/A	
TR	House # 68	Throughout building	Radioactive Smoke Detectors	2	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 68	N/A	Leachable lead riser on roof of house	1	per	Good	N/A	N/A	2008	N/A	Visually noted
Exterior	House # 69	Exterior	(ACM) Transite Paneling	1600	per th no	Good	No	15-001	2008	20 - 30% CH	Visually Hoteu
1	House # 69	Main Floor	(ACM) Checkered Linoleum	600	sq. ft	Good	Yes	15-002	2008	90 - 95% CH	
1	House # 69	Living Room	(ACM) Stipple texture coat	600	sa. ft	Good	Yes	15-003	2008	1 - 5% CH	
									2000	. 070 011	Duplicate sample is 69-P01 (1.16 mg/l_non-
Exterior	House # 69	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	LBP-001	2008	16,700 ppm	leachable)
Exterior	nouse # 69	vvali	(LBP) Exterior Yellow Paint	1600	N/A	1004	N/A	LBP-002	2008	934 ppm	



	General Description	Location	Material Description					Sample	Collection &	Analysis	
Floor	Building	Sample Location	Material Type & Specific Description	Quantity	Units	Cond.	Friable	Field	Date	Analytical	Comments
1	House # 69	Main Floor	Mercury Containing Ampoule	1	per	Good	N/A	N/A	2008	N/A	
Interior	House # 69	Throughout building	Mercury Vapor in Fluorescent Lights	8	per	Good	N/A	N/A	2018	N/A	
Interior	House # 69	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	7	per	Good	N/A	N/A	2018	N/A	
TB	House # 69	Throughout building	Radioactive Smoke Detectors	2	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 69	N/A Interior	Leachable lead riser on root of house	1	per	Good	N/A	N/A	2008	N/A	Visually hoted
N/A	House # 72	Exterior	(ACM) Transite Papeling	4	per	Fair	N/A	16-004	2018	20 - 30% CH	
1	House # 72	Main Floor	(ACM) Beige Rock Pattern Linoleum	600	sq. ft	Good	Yes	16-005	2008	85 - 90% CH	
2	House # 72	Upstairs Bedroom	(ACM) Brown Block Pattern Linoleum	400	sq. ft	Good	Yes	16-006	2008	90 - 95% CH	
Estados	11	Talas		100		Deser				40.700	Visually similar to LBP- 001 and 69-01 (non-
Exterior	House # 72	Irim	(LBP) Exterior white Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	leachable)
1	House # 72	Main Floor	Mercury Containing Ampoule	0	per	Good	N/A	N/A	2008	N/A	
Interior	House # 72	Throughout building	Mercury Vapor in Fluorescent Lights	4	per	Good	N/A	N/A	2018	N/A	
Interior	House # 72	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	2	per	Good	N/A	N/A	2018	N/A	Containing Americium
Exterior	House # 72	N/A	Loschable load riser on roof of house	1	per	Good	N/A N/A	N/A N/A	2008	N/A	Visually noted
1	House # 72	Main Floor	(ACM) Brown Pattern Linoleum	600	sa. ft	Good	Yes	16-007	2008	85 - 90% CH	Visually noted
2	House # 73	Upstairs	(ACM) Brown Pattern Linoleum	400	sq. ft	Good	Yes	16-009	2008	85 - 90% CH	
Exterior	House # 73	Exterior	(ACM) Transite Paneling	1600	sq. ft	Good	No	N/A	2008	20 - 30% CH	Visually similar to 15- 001
3	House # 73	Upstairs	(ACM) Brown Block Pattern Linoleum	400	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-016 & 16-016
Basement	House #73	Basement	(ACM) White Block Pattern Lino, Layer 3 Grey Fibrous	600	sq. ft	Good	No	73-01	43001	70 - 80% CH	Visually similar to Brown Pattern Lino
Exterior	House # 73	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	Visually similar to LBP- 001 and 69-01 (non-
4	House # 72	Main Elean	Mercury Containing Amnoula	4	201	Cood	NI/A	NI/A	2009	N/A	leachable)
Interior	House # 73	Throughout building	Mercury Containing Ampoule	3	per	Good	N/A N/A	N/A N/A	2000	N/A N/A	
TB	House # 73	Throughout building	Radioactive Smoke Detectors	2	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 73	N/A	Leachable lead riser on roof of house	1	per	Good	N/A	N/A	2008	N/A	Visually noted
Exterior/Interior	House # 74	Exterior and Basement	(ACM) Transite Paneling	1650	sq. ft	Good	No	N/A	2008	20 - 30% CH	Visually similar to 15- 001
3	House # 74	Main Floor (excluding Kitchen) and	(ACM) Brown Block Pattern Linoleum	900	sa ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-016 & 16-016
• 	110036 # 14	Upstairs		500	34.10	0000	103	N/A	2000	11/6	
Exterior	House # 74	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	Visually similar to LBP- 001 and 69-01 (non-
1	House # 74	Main Eloor	Morcury Containing Ampoulo	1	por	Good	N/A	N/A	2008	N/A	leachable)
Interior	House # 74	Throughout building	Mercury Vapor in Eluorescent Lights	8	per	Good	N/A	N/A	2000	N/A	
Interior	House # 74	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	4	per	Good	N/A	N/A	2018	N/A	
TB	House # 74	Throughout building	Radioactive Smoke Detectors	0	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 74	N/A	Leachable lead riser on roof of house	1	per	Good	N/A	N/A	2008	N/A	Visually noted
2	House # 75	Main Floor	(ACM) Brick Pattern Linoleum	400	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-009 and 16-002
Exterior	House # 75	Exterior	(ACM) Transite Paneling	1600	sq. ft	Good	No	N/A	2008	20 - 30% CH	Visually similar to 15- 001
Exterior	House # 75	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	Visually similar to LBP- 001 and 69-01 (non-
1	House # 75	Main Floor	Mercury Containing Ampoule	1	ner	Good	N/A	N/A	2008	N/A	leachable)
Interior	House # 75	Throughout building	Mercury Vapor in Fluorescent Lights	5	per	Good	N/A	N/A	2018	N/A	
Interior	House # 75	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	4	per	Good	N/A	N/A	2018	N/A	
TB	House #75	Throughout building	Radioactive Smoke Detectors	1	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 75	N/A	Leachable lead riser on roof of house	1	per	Good	N/A	N/A	2008	N/A	Visually noted
3	House # 76	Upstairs	(ACM) Brown Block Pattern Linoleum	400	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-016 & 16-016
2 Exterior	House # 76	Main Floor	(ACM) Beige "rock" Pattern Linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 16-005 and 20-014
Exterior	House # 76	Exterior	(ACM) Transite Parleting	1000	sq. it	Good	NO	N/A	2008	20 - 30% CH	Visually similar to LBP- 001 and 69-01 (non-
Exterior	House # 76	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	leachable)
1	House # 76	Main Floor	Mercury Containing Ampoule	1	per	Good	N/A	N/A	2008	N/A	
Interior	House # 76	Throughout building	Mercury Vapor in Fluorescent Lights	5	per	Good	N/A	N/A	2018	N/A	
Interior	House # 76	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	3	per	Good	N/A	N/A	2018	N/A	
TB	House # 76	Throughout building	Radioactive Smoke Detectors	1	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 76	N/A	Leachable lead riser on roof of house	1	per	Good	N/A	N/A	2008	N/A	Visually noted
N/A	Between #76 & 78	Shed	(ACM) Brown Block Pattern Linoleum	150	sq. π	Good	Yes	N/A	2008	N/A	Visually similar to 15-016 & 16-016
N/A	In between #76 & 78	Shed	(LBP) Light Green Exterior	500	N/A	Good	N/A	LBP-011	2008	1,720 ppm	non-leachable)
2 Exterior	House # 78	Main Floor and Upstairs	(ACM) Brick Pattern Linoleum	1000	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-009 and 16-002
Exterior	nouse # 78	Exterior	(ACM) Transite Paneling	000	sq. π	6000	NO	N/A	2008	20 - 30% CH	Visually similar to 180 001 and 60 04 (non
Exterior	House # 78	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	leachable)
Interior	House # 78	Wall	(LBP) Interior Pink Paint	1000	N/A	Good	N/A	LBP-008	2008	3,270 ppm	Visually similar to 66-P01B (non-leachable)
Basement	House # 78	Floor	(LBP) Basement Grey Floor Paint	400	N/A	Good	N/A	LBP-010	2008	1,820 ppm	Visually similar to 79-P02 (non-leachable)
Interior	House # 78	Throughout building	Mercury Vapor in Fluorescent Lights	1	per	Good	N/A	N/A	2018	N/A	
Interior	House # 78	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	1	per	Good	N/A	N/A	2018	N/A	
ТВ	House # 78	Throughout building	Radioactive Smoke Detectors	2	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 78	N/A	Leachable lead riser on roof of house	1	per	Good	N/A	N/A	2008	N/A	Visually noted
2	House # 79	Kitchen Mein Eleer and Unstaine	(ACM) Brick Pattern Linoleum	100	sq. ft	Good	Yes	N/A	2008	N/A	visually similar to 15-009 and 16-002
2 Exterior	House # 79	Exterior	(ACM) Transite Paneling	1600	sq. ft	Good	NO	15-014 Ν/Δ	2008	1 - 5% CH	Visually similar to 15- 001
Exterior	10036 # 13	EAGUIOI	(really transite raneing	1000	ay, it	0000	110	1977	2000	20 - 00 /0 011	violating annual to 10-001



	General Description	Location	Material Description					Sample	Collection & A	nalysis	
Floor	Building	Sample Location	Material Type & Specific Description	Quantity	Units	Cond.	Friable	Field	Date	Analytical	Comments
Basement	House # 63-69, 72-76, 78-79	Basement Furnaces	(ACM) Paper Gasket (3"x1'x5mm) inside furnace	1	per	Good	Yes	N/A	N/A	20 - 30% CH	Visually similar to 64-01
Exterior	House # 79	Trim	(LBP) Exterior White Paint	100	N/A	Poor	N/A	N/A	2008	16,700 ppm	Visually similar to LBP- 001 and 69-01 (non- leachable)
Interior	House # 79	Wall	(LBP) Interior Pink Paint	1000	N/A	Good	N/A	N/A	2008	3,270 ppm	Visually similar to 66-P01B (non-leachable)
Basement	House # 79	Floor	(LBP) Basement Grey Floor Paint	400	N/A	Good	N/A	N/A	2008	1,820 ppm	Visually similar to 79-P02 (non-leachable)
1	House # 79	Main Floor	Mercury Containing Ampoule	1	per	Good	N/A	N/A	2008	N/A	
Interior	House # 79	Throughout building	Mercury Vapor in Fluorescent Lights	6	per	Good	N/A	N/A	2018	N/A	
Interior	House # 79	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	2	per	Good	N/A	N/A	2018	N/A	
TB	House # 79	Throughout building	Radioactive Smoke Detectors	3	per	Good	N/A	N/A	2008	N/A	Containing Americium
Exterior	House # 79	N/A	Leachable lead riser on roof of house	1	per	Good	N/A	N/A	2008	N/A	Visually noted
Interior	House # 63-69, 72-76, 78-79	N/A Through out huilding	Leachable lead seams in cast iron piping	1	per	Good	N/A	N/A	2008	N/A	Visually noted
Interior	Dentist Trailer	Infoughout building	Mercury vapor in Fluorescent Lights	36	per	Good	N/A	N/A	2018	N/A	
Interior	Dentist Trailer	Interior	Miscellaneous Chemicals, half full bottle of antifreeze	2	litros	Good	N/A	N/A N/A	2018	N/A N/A	
1	School #1	Main Floor	Mercury Containing Ampoule	1	ner	Good	N/A	N/A	2013	N/A	
Exterior	School # 1	Trim	Beige Paint	200	sq. ft	Poor	N/A	SCHOOL-P01A, SCHOOL-P01B	43008	21200 ppm, 45.9 mg/L	
Exterior	School # 1	Wall	Brown Paint	2600	sq. ft	Good	N/A	SCHOOL-P02A, SCHOOL-P02B	43008	23500 ppm, 16.4 mg/L	
Interior	School # 1	Entrance	White Paint	White Paint 900 sq. ft Poor N/A SCH0 SCH0		SCHOOL-P03A, SCHOOL-P03B	43007	20400 ppm, 79.6 mg/L			
Interior	School # 1	Throughout building	Mercury Vapor in Fluorescent Lights	176	per	Good	N/A	N/A	2018	N/A	
Interior	School # 1	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	86	per	Good	N/A	N/A	2018	N/A	
TB	School # 1	Throughout building	Radioactive Smoke Detectors	3	per	Good	N/A	N/A	2008	N/A	Containing Americium
1	School # 1	Main Floor	Mercury Containing Ampoule	2	per	Good	N/A	N/A	2008	N/A	
1	School # 2	Throughout	(ACM) Circle Pattern Linoleum	2000	sq. ft	Good	Yes	16-025	2008	85 - 90% CH	
1	School # 2	Main Floor	Mercury Containing Ampoule	1	per	Good	N/A	N/A	2008	N/A	
1	RCMP/Medical Bldg.	Storage Area	(ACM) Light Beige Pattern Linoleum	500	sq. ft	Good	Yes	16-022	2008	85 - 90% CH	
Exterior	RCMP/Medical Bldg.	Exterior Roof	(ACM) Roof System, Shingles + Felt	Roof of Bldg.	sq. ft	Good	Yes	RCMP-02	43000	1 - 5% CH	
ТВ	RCMP/Medical Bldg.	Throughout building	Radioactive Smoke Detectors	7	per	Good	N/A	N/A	2008	N/A	Containing Americium
Interior	RCMP/Medical Bldg.	I hroughout building	Mercury Vapor in Fluorescent Lights	72	per	Good	N/A	N/A	2018	N/A	
Interior	RCMP/Medical Bidg.	I nroughout building	Polychiorinated Bipnenyls (PCB) In Light Ballasts	36	per	Good	N/A	N/A	2018	N/A	
Apt 207 Basement	Apartment Bldg, A	Machanical Room	(ACM) Brown Pattern Linoleum	50	Sq. It	Good	No	17-010	2008	20 - 30 % CH	Throughout multiple buildings
1 2 & 4	Apartment Bldg, A	Mechanical Room	(ACM) BIES HVAC Mastic	50 N/A	N/A	Good	No	Δ_05	42989	5-10 % CH	Throughout multiple buildings
1,2&4	Apartment Bldg, A, B & C	Room 105	(ACM) Light backing (2-3 per room in Apt A, B & C)	2 to 3	room	Good	Yes	A-00	42989	30 - 40% CH	
1, 2 & 3	Apartment Bldg. A	Room 306	(ACM) Light backing, Layer 1 Beige/Silver Coating	1	Room	Moderate	Yes	A-09	42989	30-40 % CH	
1, 2 & 3	Apartment Bldg. A	Room 303	(ACM) Black caulking on exterior windows	94	per window	Poor	No	A-10	42989	5-10 % CH	
Apt 106	Apartment Bldg. B	Kitchen	(ACM) Brown Pattern Linoleum	150	sq. ft	Good	Yes	17-001	2008	85 - 90% CH	
Apt 101	Apartment Bldg. C	Kitchen	(ACM) Brown Pattern Linoleum	150	sq. ft	Good	Yes	17-022	2008	85 - 90% CH	Visually similar to sample # 17-016
1, 2 & 3	Apartment Bldgs. A, B & C	Kitchen	(ACM) Brown Pattern Linoleum	9450	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 16-007, 19-014, 17-001, 19- 011, 19-013 & 22-008
1, 2 & 3	Apartment Bldgs. A, B & C	Apt B Room 207	(ACM) Sink Backings	10	per	Good	No	B-07	42989	1-5 % CH	
1, 2 & 3	Apartment Bldgs. B & C	Apt B Window	(ACM) Brown caulking on exterior windows	94	per window	Good	No	B-01	42989	5-10 % CH	ACM calking is located on Apt B and C
1, 2 and 3	Apartment Bldgs. A, B & C	Apartment Bldgs. A, B & C	20 Leachable lead risers on each building roof	20	per	Good	N/A	N/A	2008	N/A	Visually noted One household refrigerator per
1, 2 and 5	Apartment Blugs. A & C		(ODO) Keingerator	•	pei	0000	10/5	N/A	2000	N/A	apartment
All Floors	Apartment B	Interior	Mould	TB	N/A	N/A	N/A	N/A	2008	N/A	
TB	Apartment A, B & C	Mechanic System	Glycol System	N/A	N/A	N/A	N/A	N/A	42989	N/A	
Interior	Apartment Bldg. A	Main Floor	Mercury Containing Ampoule	21	per	Good	N/A	N/A	2008	N/A	
Interior	Apartment Bldg. A	Throughout building	Mercury vapor in Fluorescent Lights	168	per	Good	N/A	N/A	2018	N/A	
TR	Apartment Bldg. A	Throughout building	Radioactive Smoke Detectors	12	per	Good	N/A N/A	N/A	2018	N/A N/A	Containing Americium
N/A	Apartment Bldg, A	Interior	(ODS) Fire Extinguisher	5	N/A	Good	N/A	N/A	43322	N/A	Unknown quantity of Refrigerant
Interior	Apartment Bldg, B	Main Floor	Mercury Containing Ampoule	9	per	Good	N/A	N/A	2008	N/A	
Interior	Apartment Bldg. B	Throughout building	Mercury Vapor in Fluorescent Lights	131	per	Good	N/A	N/A	2018	N/A	
Interior	Apartment Bldg. B	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	48	per	Good	N/A	N/A	2018	N/A	
TB	Apartment Bldg. B	Throughout building	Radioactive Smoke Detectors	14	per	Good	N/A	N/A	2008	N/A	Containing Americium
Interior	Apartment Bldg. C	Main Floor	Mercury Containing Ampoule	19	per	Good	N/A	N/A	2008	N/A	
Interior	Apartment Bldg. C	Throughout building	Mercury Vapor in Fluorescent Lights	175	per	Good	N/A	N/A	2018	N/A	
Interior	Apartment Bldg. C	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	87	per	Good	N/A	N/A	2018	N/A	
ТВ	Apartment Bldg. C	Throughout building	Radioactive Smoke Detectors	19	per	Good	N/A	N/A	2008	N/A	Containing Americium
Basement	80 Man Staff Accommodation	Boiler Room	(ACM) Mudded Pipe Insulation	60	elbow/risers	Poor	Yes	19-001	2008	60 - 70 % CH	Damaged elbows with exposed ACM
2	80 Man Staff Accommodation	Iff Accommodation Room 224, Bathroom (ACM) Brown Square Pattern Linoleum		50	sq. ft	Good	Yes	19-011	2008	85 - 90 % CH	
3	80 Man Staff Accommodation	Room 328, Bathroom	(ACM) Brown Square Pattern Linoleum	50	sq. ft	Good	Yes	19-013	2008	85 - 90 % CH	Menally similar (* 40.007, 40.011, 47.051, 17.
1, 2 & 3	80 Man Staff Accommodation	Bathrooms, common rooms	(ACM) Brown Square Pattern Linoleum	3600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 16-007, 19-014, 17-001, 19- 011, 19-013 & 22-008
N/A	80 Man Staff Accommodation	Exterior	(LBP) Exterior Dark Cream Paint on siding	N/A	N/A	N/A	N/A	N/A	2008	1,130 ppm	visually similar to LBP-033, duplicate sample is 80M-P01 (0.45 mg/L non- leachable)
N/A	80 Man Staff Accommodation	Exterior roof	Leachable lead risers on roof	10	per	N/A	N/A	N/A	2008	N/A	Visually noted
1, 2 & 3	80 Man Staff Accommodation	Interior	Mercury Containing Ampoule	81	per	Good	N/A	N/A	42989	N/A	1 per unit
Interior	80 Man Staff Accommodation	I hroughout building	Mercury Vapor in Fluorescent Lights	145	per	Good	N/A	N/A	2018	N/A	



TETRA TECH

	General Description	iption Location Material Description					Sample	Collection & /	Analysis		
Floor	Building	Sample Location	Material Type & Specific Description	Quantity	Units	Cond.	Friable	Field	Date	Analytical	Comments
Interior	80 Man Staff Accommodation	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	106	per	Good	N/A	N/A	2018	N/A	
N/A	80 Man Staff Accommodation	Basement & Mechanical Room	Mould	2	rooms	N/A	N/A	N/A	42989	N/A	Visually noted
N/A	80 Man Staff Accommodation	Interior	(ODS) Refrigerator	2	N/A	Good	N/A	N/A	42989	N/A	Unknown quantity of Refrigerant
N/A	80 Man Staff Accommodation	Interior	(ODS) Fire Extinguishers	27	per	Good	N/A	N/A	2018	N/A	Unknown quantity of Refrigerant
All Floors	80 Man Stan Accommodation	Interior	Radioactive Smoke Detectors	97	N/A	N/A	N/A	N/A	2008	N/A	Duplicate cample is EIRE P01 (0.01 mg/L is
Interior	Fire Hall	Throughout	(LBP) Steel I-beam	N/A	N/A	N/A	N/A	LBP-046	2008	1,160 ppm	non-leachable)
Interior	Green shed by the Fire Hall	Throughout building	Mercury Vapor in Fluorescent Lights	4	per	Good	N/A	N/A	2018	N/A	
Interior	Green shed by the Fire Hall	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	2	per	Good	N/A	N/A	2018	N/A	
N/A	Green shed by the Fire Hall	Interior	(ODS) Fire Extinguishers	70	per	Good	N/A	N/A	2018	N/A	Unknown quantity of Refrigerant
N/A	NWIEL Irailer	Main Area	(ACM) 12" x 12" Beige Vinyl Floor Lie	800	sq. ft	Good	NO	19-017	2008	1 - 5 % CH	
Interior	NWTEL Trailer	Throughout building	Mercury vapor in Fluorescent Lights	20	per	Good	N/A	N/A	2018	N/A	
1		Throughout	(ACM) 12" x 12" Beige Vinyl Floor Tile	2000	sa ft	Good	NA	20-004	2018	1 - 5 % CH	
1	Rec Center	Throughout	(ACM) Beige HVAC Mastic	On HVAC	N/A	Good	No	Rec-03	2008	2 - 5 % CH	
1	Rec Center	Boiler Room/Mechanical Room	(ACM) Mudded Pipe Insulation (all pipe elbows)	300+	elbow/	Fair/ poor	Yes	20-006, Rec-04,	2008	1-5% CH	
2	Rec Center	Hallway	(ACM) 12" x 12" Beige Vinyl Floor Tile	800	sa ft	Good	No	20-007	2008	1 - 5 % CH	
2	Rec Center	Vacant Room	(ACM) 12"x12" Blue&white Vinyl Tile	900	sq. ft	Good	No	20-007	2008	1 - 5 % CH	
1	Rec Center	Stage	(I BP) Yellow interior Paint	N/A	N/A	N/A	N/A	I BP-04	2008	1 070 ppm	Duplicate sample is REC-P01 (1.5 mg/L is
1 and 2	Rec Center	Throughout	(ODS) Drinking Fountains	2	por	N/A	N/A	N/A	12080	N/A	non-leachable)
1 & 2	Rec Center		Mercury Containing Ampoule	6	per	Good	N/A	N/A	42989	N/A	
TR	Pac Contor	Throughout building	Moreury Vapor in Eluoroscont Lights	784	por	Good	N/A	N/A	2018	N/A	184 regular-sized lights, 246 large-sized
TB	Rec Contor	Throughout building	Delychlorineted Pinkenyle (DCP) in Light Pallacte	245	por	Cood	N/A	N/A	2010	N/A	lights
TB	Rec Center	Throughout building	Polychiorinated Biphenyls (PCB) in Light Ballasts	245 10	per	Good	N/A	N/A	2018	N/A	Containing Amoricium
1 and 2	Rec Centre	Interior throughout building	Mould visible on the walls, throughout the building	TB	N/A	N/A	N/A	N/A	42989	N/A	Visually noted
2	Dorm A	Room # 32	(ACM) Beige Octagon Pattern Linoleum	500	sa, ft	Good	Yes	20-019	2008	85 - 90 % CH	Visually noted
2	Dorm A	2nd Floor Bedroom South	(ACM) Light Fixture Backing	4	backing	Good	Yes	DORMA-09	42991	70 - 80% CH	4 backings throughout the bldg.
1	Dorm A	Exterior	(LBP) Exterior Siding Cream Paint	N/A	N/A	N/A	N/A	LBP-072	2008	1,930 ppm	Duplicate sample is DORMA-P02 (0.09 mg/L is non-leachable)
1	Dorm A	Interior	(LBP) Green Paint	N/A	N/A	N/A	N/A	LBP-052	2008	1,460 ppm	Duplicate sample is DORMA-P01 (0.03 mg/L is non-leachable)
1 & 2	Dorm A	Interior	Mercury Containing Ampoule	1	per	Good	N/A	N/A	42989	N/A	
ТВ	Dorm A	Throughout bldg.	Radioactive Smoke Detectors	18	room	Good	N/A	N/A	42996	N/A	
Interior	Dorm A	Throughout building	Mercury Vapor in Fluorescent Lights	31	per	Good	N/A	N/A	2018	N/A	
Interior	Dorm A	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	16	per	Good	N/A	N/A	2018	N/A	
Basement	Cook house	Rear Stairwell	(ACM) Drywall Joint Compound	1000	sq. π	Good	Yes	20-023	2008	1-5% CH	
Basement	Cook house	Cylinder Storage Room	(ACM) Drywall Joint Compound	008	sq. it	Good	Yes	20-028	2008	1 - 5 % CH	
1	Cook house	Throughout	(ODS) Refrigerator/ Coolers	9	per	N/A	N/A	N/A	42989	N/A	Unknown quantity of Refrigerant
1	Cook house	First floor	Mercury Containing Ampoule	2	per	Good	N/A	N/A	42989	N/A	
Interior	Cook house	Throughout building	Mercury Vapor in Fluorescent Lights	278	per	Good	N/A	N/A	2018	N/A	
Interior	Cook house	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	125	per	Good	N/A	N/A	2018	N/A	
Interior	Cook house	Basement walls	(LBP) Egg Shell Paint	1200	sq. ft	Good	N/A	COOK-P01A	42979	362 ppm	Duplicate sample is COOK-P01B (0.17 mg/L is non-leachable)
2	Condominiums	Unit 64, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-025
2	Condominiums	Unit 65, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-026
2	Condominiums	Unit 66, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-027
2	Condominiums	Unit 67, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-028
2	Condominiums	Unit 69, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-029
2	Condominiums	Unit 72, Main Floor	(ACM) Speckled pattern linoleum	600	sq. it	Good	Yes	N/A N/A	2000	N/A	Visually similar to 15-006 and 20-030
2	Condominiums	Unit 76 Main Floor	(ACM) Speckled pattern linoleum	008	sq. it	Good	Ves	N/A N/A	2008	N/A N/A	Visually similar to 15-006 and 20-031
2	Condominiums	Unit 78, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-032
3	Condominiums	Unit 80, Upstairs	(ACM) Yellow pattern linoleum	400	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-005
Interior	Condominiums	Unit 80	Radioactive Smoke Detectors	2	N/A	N/A	N/A	N/A	2008	N/A	
3	Condominiums	Unit 81, Upstairs	(ACM) Checkered Linoleum	300	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-002 and 21-044
2	Condominiums	Unit 81, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-034
Interior	Condominiums	Unit 81	Radioactive Smoke Detectors	2	N/A	N/A	N/A	N/A	2008	N/A	
3 Indexion	Condominiums	Unit 82, Bedroom	(ACM) Small Checkered Linoleum	200	sq. ft	Good	Yes	21-044	2008	85 - 90 % CH	
1 2 & 2	Condominiums	Unit 84 3 Lovele	(ACM) Beige/ Small Checkered Pattern Lincloum	1100	N/A	Good	N/A Vec	1N/A 21_039	2008	N/A 85 - 90 % CH	
Interior	Condominiums	Unit 84	Radioactive Smoke Detectors	1	N/A	N/A	N/A	N/A	2008	N/A	
1, 3	Condominiums	Unit 85, Upstairs and Basement	(ACM) Yellow pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-005
Interior	Condominiums	Unit 85	Radioactive Smoke Detectors	2	N/A	N/A	N/A	N/A	2008	N/A	
3	Condominiums	Unit 86, Upstairs	(ACM) Yellow pattern linoleum	400	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-005
2	Condominiums	Unit 86, Living Room	(ACM) Brown Square Pattern Linoleum	500	sq. ft	Good	Yes	21-036	2008	85 - 90 % CH	
Interior	Condominiums	Unit 86	Radioactive Smoke Detectors	1	N/A	N/A	N/A	N/A	2008	N/A	
3	Condominiums	Unit 87, Upstairs	(ACM) Yellow pattern linoleum	400	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-005
3	Condominiums	Unit 88, Upstairs	(ACM) Yellow pattern linoleum	400	sq. ft	Good	Yes	N/A	2008	N/A	visually similar to 15-005





6	General Description	Location	Material Description			Sample Collection & Analysis					
Floor	Building	Sample Location	Material Type & Specific Description	Quantity	Units	Cond.	Friable	Field	Date	Analytical	Comments
2	Condominiums	Unit 89, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-034
Interior	Condominiums	Unit 89	Radioactive Smoke Detectors	2	N/A	N/A	N/A	N/A	2008	N/A	Viewelly, similar to 45,000 and 00,025
2	Condominiums	Unit 90, Main Floor	(ACM) Speckled pattern lindleum	600	sq. π	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-035
Interior	Condominiums	Unit 90, Upstairs	(LBP) Beige Wall Paint	N/A	per	Moderate	N/A	90-P01A	43007	1030 ppm	leachable)
Interior	Condominiums	Unit 91, Ceiling	(LBP) White Ceiling/wall Paint	N/A	per	Poor	N/A	91-P01A	43007	9130 ppm	leachable)
2	Condominiums	Unit 91, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-036
2	Condominiums	Unit 93 Bathroom	(ACM) Speckled Linoleum	100	N/A sa ft	Good	Yes	20-038	2008	85 - 90% CH	
Interior	Condominiums	Unit 93	Radioactive Smoke Detectors	3	N/A	N/A	N/A	N/A	2008	N/A	
2	Condominiums	Unit 94, Main Floor	(ACM) Speckled pattern linoleum	600	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-006 and 20-037
2	Condominiums	Unit 94, Kitchen	(ACM) Brown Square Pattern Linoleum	300	sq. ft	Good	Yes	20-036	2008	90 - 95% CH	
2	Condominiums	Unit 95, Kitchen	(ACM) Beige Pattern Linoleum	300	sq. ft	Good	Yes	20-035	2008	90 - 95% CH	
Interior	Condominiums	Unit 95	Radioactive Smoke Detectors	1	N/A	N/A	N/A	N/A	2008	N/A	Viewelly, similar to 45,000 and 20,020
1283	Condominiums	Unit 96, Main Floor	(ACM) Speckled pattern linoleum	600 1000	sq. π	Good	Yes	N/A 20-028	2008	N/A	Visually similar to 15-006 and 20-038
1, 2 & 3	Condominiums	81, 83, 86 - 95	(ACM) Brown Square Pattern Linoleum	5000	sq. ft	Good	Yes	N/A	2008 N/A	N/A	Visually similar to 15-009 and 16-002
Exterior	Condominiums	Exterior Unit 93 Wall	(LBP) Yellow Wall Paint	N/A	per	Good	N/A	CONDO-P01A	43007	1,300 ppm	Duplicate is CONDO-P01B (1.16 mg/L is non-
Interior	Condominiums	Main Floor	Visible mould and water stains	TB	N/A	N/A	N/A	N/A	42989	N/A	Observed while on-site
1, 2 & 3	Condominiums	Each Unit	(ODS) Refrigerator	1	per	N/A	N/A	N/A	42989	N/A	Unknown quantity of Refrigerant
1, 2 & 4	Condominiums	Each Unit	Radioactive Smoke Detectors	3	per	N/A	N/A	N/A	42996	N/A	
1, 2 & 3	Condominiums	Each Unit	Mercury Containing Ampoule	1	per	Good	N/A	N/A	42989	N/A	1 ampoule unit
1 Recomment	House # 119	Upstairs bathrooms & kitchen	(ACM) Light Beige Pattern Linoleum	400	sq. ft	Good	Yes	22-012	2008	85 - 90 % CH	Viewelly similar to DODMA 00
Basement	House # 119	Kitchop	(ODS) Pofrigorator	3	per	GOOd N/A	Tes N/A	N/A N/A	2008	70 - 80% CH	Unknown quantity of Pofrigorant
1 & 2	House # 119	Interior	Mercury Containing Ampoule	1	per	Good	N/A	N/A	2008	N/A	Unknown quantity
TB	House # 119	Throughout building	Mercury Vapor in Fluorescent Lights	4	per	Good	N/A	N/A	2018	N/A	
TB	House # 119	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	2	per	Good	N/A	N/A	2018	N/A	
TB	House # 119	Throughout building	Radioactive Smoke Detectors	1	per	Good	N/A	N/A	2018	N/A	Containing Americium
Exterior	House # 119	N/A	Leachable lead risers on roof of house	3	per	Good	N/A	N/A	2008	N/A	Visually noted
N/A	House # 119	Outside House	Heating Oil Tank & empty tanks	N/A	N/A	N/A	N/A	N/A	42996	-	
1	House # 120	Living Room	(ACM) Drywall Joint Compound	2000	sq.it	Good	Yes	22-002	2008	1-5% CH	
1	House # 120	Hallway	(ACM) Drywall Joint Compound	1000	sq. ft	Good	Yes	22-004	2008	1 - 5 % CH	
1	House #120	Kitchen	(ACM) Brown Pattern Linoleum	100	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 16-007, 19-014, 17-001, 19- 011, 19-013 & 22-008
Basement	House # 120	Basement Bathroom	(ACM) Brown Square Pattern Linoleum	100	sq. ft	Good	Yes	22-005	2008	85 - 90 % CH	
Basement	House # 120	Stairwell	(ACM) Drywall Joint Compound	600	sq. ft	Good	Yes	22-006	2008	1 - 5 % CH	
Basement	House # 120	Basement	(ACM) Light Backings	3	per	Good	Yes	N/A	N/A	70 - 80% CH	Visually similar to DORMA-09
Exterior	House # 120	Trim and Door	(LBP) White Paint	N/A	per	Poor	N/A	120-P01A	43006	3,150 ppm	leachable)
1	House #120	Kitchen	(ODS) Refrigerator	1	per	N/A	N/A	N/A	2018	N/A	Unknown quantity of Refrigerant
1	House #120	Each Unit	Mercury Containing Ampoule	1	per	Good	N/A	N/A	2018	N/A	1 ampoule unit
Exterior	House # 120	N/A Outside House	Leachable lead risers on root of house	3	per	Good	N/A	N/A	2008	N/A	visually noted
TB	House # 120	Throughout building	Radioactive Smoke Detectors	1	per	Good	N/A	N/A	2018	N/A	Newer model (0.9 Americium)
N/A	Carpenter Shop	Office	(ACM) Brown Block Pattern Linoleum	100	sq. ft	Good	Yes	N/A	2008	N/A	Visually similar to 15-016 & 16-016
Interior	Carpenter Shop	Throughout building	Mercury Vapor in Fluorescent Lights	74	per	Good	N/A	N/A	2018	N/A	68 regular-sized lights, 6 large-sized lights
Interior	Carpenter Shop	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	42	per	Good	N/A	N/A	2018	N/A	
N/A	Carpenter Shop	Interior	(ODS) Fire Extinguishers	3	per	Good	N/A	N/A	2018	N/A	
	Office/Admin Bldg.	Entrance Hallway	(ACM) Drywall Joint Compound	600	sq.π sq.ft	Good	Yes	21-006	2008	1-5% CH	
1	Office/Admin Bldg.	Board Room	(ACM) Drywall Joint Compound	1000	sq. ft	Good	Yes	21-010	2008	1 - 5 % CH	
1	Office/Admin Bldg.	Elec. Conduit E Side of Bldg.	(ACM) Mastic	400	sq. ft	Moderate	No	OFF-04	43006	5 - 10% CH	
1	Office/Admin Bldg.	Room S of Enviro Office 1st Floor	(ACM) Texture Coating, Walls/Ceiling	45	sq. ft	Good	No	OFF-10	43006	1 - 5% CH	
1	Office/Admin Bldg.	Main FI, N. Bathroom	(ACM) DWJC, Layer 1 White/Grey Coating	300	sq. ft	Poor	No	OFF-12	43006	1 - 5% CH	
2	Office/Admin Bldg.	2nd Floor	(ACM) Light Fixture Backing	3	per	Good	Yes	N/A	N/A	70 - 80% CH	Visually similar to DORMA-09
Interior	Office/Admin Bldg.	Throughout building	(ACM) Brown Block Pattern Lindeum	95	sq. it	Good	N/A	N/A N/A	2008	N/A N/A	Visually similar to 15-016 & 16-016
Interior	Office/Admin Bldg.	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	48	per	Good	N/A	N/A	2018	N/A	
1 and 2	Office/Admin Bldg.	Kitchen	(ODS) 1 Refrigerator, 2 fire extinguishers	3	per	N/A	N/A	N/A	2008	N/A	Unknown quantity of Refrigerant
ТВ	Office/Admin Bldg.	Mechanic System	Glycol System	N/A	N/A	N/A	N/A	N/A	2008	N/A	
1	Office/Admin Bldg.	Throughout building	Radioactive Smoke Detectors	3	per	Good	N/A	N/A	2018	N/A	Newer model (0.9 Americium)
1	Power House	Main Area	(ACM) Drywall Joint Compound	1000	sq. ft	Good	Yes	21-015	2008	1 - 5 % CH	
2	Power House	Control / Electrical Room	(ACM) Drywall Joint Compound	1000	sq.π sq.ft	Good	NO Yee	21-010	2008	1-5% CH	
N/A	Power House	Fuel Tank	(LBP) Red Paint	N/A	N/A	N/A	N/A	LBP- 059	2008	647 ppm	Tank not on-site anymore
1	Power House	Exterior Door	(LBP) Grey Paint	N/A	N/A	N/A	N/A	LBP- 060	2008	24,500 ppm	Doors replaced with new doors
1	Power House	Interior Floor	(LBP) Yellow Safety Paint	N/A	N/A	N/A	N/A	LBP- 061	2008	28,300 ppm	Not enough paint remained for leachable lead sampling



	General Description	Location	Material Description				Sample	Collection & A			
Floor	Building	Sample Location	Material Type & Specific Description	Quantity	Units	Cond.	Friable	Field	Date	Analytical	Comments
2	Power House	2nd Level Near Breaker Room	(ACM) Pipe Gasket	1	sq. ft	Moderate	Yes	POWH-02	43006	85 - 90% CH	
N/A	Power House	Interior	Mercury Containing Ampoule	2	per	Good	N/A	N/A	2018	N/A	
Interior	Power House/Mill	Throughout building	Mercury Vapor in Fluorescent Lights	585	per	Good	N/A	N/A	2018	N/A	522 regular-sized lights, 65 large-sized
Interior	Power House/Mill	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	322	per	Good	N/A	N/A	2018	N/A	
Exterior	Power House	Exterior	Waste Oil	1/2	Drum	N/A	N/A	N/A	42997	-	
N/A	Power House	N/A	Heating Oil	1	Tank	N/A	N/A	N/A	42997	-	
N/A	Power House	N/A	Potassium Amylxanthate	1	Drum	N/A	N/A	N/A	42997	-	
N/A	Power House	N/A	Potassium Ethyl Xanthate	1	Drum	N/A	N/A	N/A	42997	-	
N/A	Power House	N/A	Fuel Tank (Diesel)	30,000	Litres	N/A	N/A	N/A	42997	-	
N/A	Power House	N/A	Used Oil	1	Tote	N/A	N/A	N/A	42997	-	
N/A	Pump House	N/A	Tank	2140	Litres	N/A	N/A	N/A	42997	N/A	
1	Old Power House	Interior Floor	(LBP) Green Paint	N/A	N/A	N/A	N/A	LBP- 062	2008	10,700 ppm	Not enough paint remained for leachable lead sampling
1	Old Power House	Boiler	(LBP) Blue Paint	N/A	N/A	N/A	N/A	LBP- 063	2008	4,150 ppm	leachable)
1	Heavy Duty Maintenance Shop	Entrance	(ACM) Drywall Joint Compound	600	sq. ft	Good	Yes	21-021	2008	1 - 5 % CH	
1	Heavy Duty Maintenance Shop	Locker Room	(ACM) Drywall Joint Compound	2000	sq. ft	Good	Yes	21-022	2008	1 - 5 % CH	
1	Heavy Duty Maintenance Shop	Lunch Room	(ACM) Drywall Joint Compound	1000	sq. ft	Good	Yes	21-023	2008	1 - 5 % CH	
1	Heavy Duty Maintenance Shop	Boiler Room	(ACM) Drywall Joint Compound	500	sq. ft	Good	Yes	21-025	2008	1 - 5 % CH	
1	Heavy Duty Maintenance Shop	Parts Storage	(ACM) 12" x 12" Dark Brown Vinyl Floor Tile	200	sq. ft	Good	No	21-026	2008	1 - 5 % CH	
2	Heavy Duty Maintenance Shop	Kitchen	(ACM) Drywall Joint Compound	1000	sq. π	Good	Yes	21-028	2008	1 - 5 % CH	
Z	Heavy Duty Maintenance Shop	Hallway	(ACM) Drywall Joint Compound	2000	sq. π	Good	Yes	21-029	2008	1 - 5 % CH	
Interior	Heavy Duty Maintenance Shop	Interior	(ODS) Fire extinguisners	14	per	N/A	N/A	N/A	2008	N/A	1 omnoulo unit
	Heavy Duty Maintenance Shop	Interior	Mercury Containing Ampoule	1	250 Collon Drumo	Good	N/A	N/A	2008	N/A	1 ampoule unit
N/A N/A	Heavy Duty Maintenance Shop	Interior	Hudrox	4	250 Gallon Druins	N/A	N/A N/A	N/A N/A	42990	N/A N/A	
N/A	Heavy Duty Maintenance Shop	Interior		4	Drums	N/A	N/A	N/A	42996	N/A	
N/A	Heavy Duty Maintenance Shop	Interior	Glycol Drums	1	Drum	N/A	N/A	N/A	42996	N/A	
N/A	Heavy Duty Maintenance Shop	Interior		13	Drums	N/A	N/A	N/A	42996	N/A	
N/A	Heavy Duty Maintenance Shop		Heating Oil	4	Large Tanks	N/A	N/A	N/A	42996	N/A	
Interior	Heavy Duty Maintenance Shop	Throughout building	Mercury Vapor in Eluorescent Lights	173	per	Good	N/A	N/A	2018	N/A	
Interior	Heavy Duty Maintenance Shop	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	92	per	Good	N/A	N/A	2018	N/A	
Interior	Maintenance Shed	Near Heavy Duty Maintenance Shop	(ODS) Fire extinguishers	2	per	N/A	N/A	N/A	2018	N/A	
2	Mill	Office Hallway	(ACM) 12" x 12" White w/ brown Vinyl Floor Tile	1500	sq. ft	Good	No	22-020	2008	1 - 5 % CH	
2	Mill	Maintenance Area	(ACM) Transite board	600	sq. ft	Good	No	N/A	2008	N/A	Visually similar to 15-001 and 16-003
1	Mill	Stairwell By Locker Room	(ACM) 1" Pipe Elbow Insulation, throughout building	TB	per	Good	Yes	Mill-03	42997	20 - 30% CH	
1	Mill	Main Floor., Lab	(ACM) Transite Board in two fume hoods	32	sq. ft	Good	No	Mill-05	42997	20 - 30% CH	
1	Mill	Gaskets throughout site	(ACM) Gaskets on two boilers	2	per	Good	Yes	N/A	2008	85 - 90% CH	Visually similar to Vent-02
1	Mill	Handrails	(LBP) Orange Paint	N/A	N/A	N/A	N/A	LBP-067	2008	29,000 ppm	Paint worn off, sampling not possible
2	Mill	Wall	(LBP) Grey Paint	N/A	N/A	N/A	N/A	LBP-068	2008	2,990 ppm	Duplicate sample is MILL-P02 (0.46 mg/L is non-leachable)
2	Mill	Wall	(LBP) Dark Grey Paint	N/A	N/A	N/A	N/A	LBP-069	2008	10,500 ppm	Duplicate sample is MILL-P01 (0.05 mg/L is non-leachable)
2	Mill	Door	(LBP) Brown Paint	N/A	N/A	N/A	N/A	LBP-070	2008	7,520 ppm	Duplicate sample is MILL-P03 (1.74 mg/L is non-leachable)
N/A	Mill	Exterior Door	(LBP) Grey Paint	N/A	N/A	N/A	N/A	LBP-070	2008	24,500 ppm	Doors replaced, new doors not sampled
Upper	Mill	Interior	Caustic Soda Beads (sodium hydroxide)	4	Pallets (bags)	N/A	N/A	N/A	42997	-	
Lower	Mill	Interior	Activated Alumina	2	Pails	N/A	N/A	N/A	42997	-	
Lower	Mill	Interior	Lankropol K-8300	12	Drums	N/A	N/A	N/A	42997	-	
Lower	Mill	Interior	Aevoari 104 Dewatering Acta	10	Druins	N/A	N/A	N/A	42997	-	
Lower	Mill	Mill	(ODS) Refrigerator	1	nor	N/A	N/A	N/A N/A	42997	- N/A	Unknown quantity of Refrigerant
TR	Mill	Mechanic System	Glycol System	N/A	N/A	N/A	N/A	N/A	2008	N/A	onknown quantity of Kenigerant
Interior	Mill		(ODS) Fire extinguishers	6	per	N/A	N/A	N/A	2018	N/A	
1	Mine Dry Bldg.	Front Office	(ACM) 12"x12" White w/black flecks Vinvl Floor Tile	1000	sa, ft	Good	No	18-001	2008	1 - 5 % CH	
2	Mine Dry Building	Janitor Room 2nd Floor	(ACM) Asbestos Pipe	100	sa, ft	Good	Yes	MineD-03	42997	5 - 10% CH	
N/A	Mine Dry Bldg.	Exterior	(LBP) Dark Blue Paint on Siding	N/A	N/A	N/A	N/A	LBP-035 MINED-P01	2008 2017	1,050 ppm 0.07 mg/L	
Interior	Mine Dry Bldg.	Throughout building	Mercury Vapor in Fluorescent Lights	98	per	Good	N/A	N/A	2018	N/A	
Interior	Mine Dry Blda.	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	51	per	Good	N/A	N/A	2018	N/A	
Interior	Mine Dry Bldg.	Throughout building	Radioactive Smoke Detectors	2	per	N/A	N/A	N/A	2018	N/A	
1	Mine Dry Bldg.	Interior	(ODS) 1 Refrigerator and 6 fire extinguishers	7	per	Good	N/A	N/A	2018	N/A	1 household refrigerator in kitchen
N/A	Water Tower #1	Exterior	(ACM) Mastic on Pipe Cover	50	lin ft	Good	No	18-006	2008	20 - 30 % CH	
N/A	Water Tower #1	Exterior	(LBP) Grey Paint on the door	N/A	N/A	N/A	N/A	LBP-039	2008	1,600 ppm	Not enough paint available for leachable lead paint sampling
N/A	Water Tower #2	Exterior	(ACM) Mastic on Vent Duct	8	lin ft	Good	No	18-008	2008	20 - 30 % CH	
N/A	Diesel Shed	Exterior	(ACM) Mastic on Vent Duct	50	lin ft	Good	No	18-007	2008	5 - 10 % CH	
N/A	Water Tank	Upper Water Tank Exterior Covering	Exterior Shingles/Felt	N/A	N/A	N/A	N/A	WT-01	42997	5 - 10% CH	
N/A	Diesel Shed	Exterior	(LBP) Exterior green Paint	N/A	N/A	N/A	N/A	LBP-041	2008	2,770 ppm	Not enough paint available for leachable lead paint sampling
Railings	Diesel Storage Tank	Exterior	(LBP) Exterior red Paint	N/A	N/A	N/A	N/A	LBP-043	2008	3,170 ppm	Visually similar to CRU-P01 (non-leachable)
1	Electrical House	Behind electrical panel	(ACM) Transite board	20	sq. ft	Good	No	N/A	2008	N/A	Visually similar to 15-001 and 16-003



	General Description	Location	Material Description			Sample	Collection & A	nalysis			
Floor	Building	Sample Location	Material Type & Specific Description	Quantity	Units	Cond.	Friable	Field	Date	Analytical	Comments
Underground	Underground Mine	Workshop	(ACM) Transite board	860	sq. ft	Poor	No	Electr-01	42997	30 - 40% CH	
Interior	Underground Mine	Throughout building	Mercury Vapor in Fluorescent Lights	70	per	Good	N/A	N/A	2018	N/A	
Interior	Underground Mine	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	35	per	Good	N/A	N/A	2018	N/A	
1	Underground Mine	Interior	(ODS) Fire extinguishers	74	per	Good	N/A	N/A	2018	N/A	
Underground	PUG lunch Shack	Exterior	(LBP) Dark Cream Paint	1	per	Good	N/A	LBP-033	2008	1,130 ppm	Paint worn off, sampling not possible
N/A	Storage Shack	Behind electrical panel	(ACM) Transite board	20	sq. ft	Good	NO	N/A	2008	N/A	Visually similar to 15-001 and 16-003
N/A	Shack #12	Behind electrical panel	(ACM) Transite board	20	sq. π	Good	NO	N/A	2008	N/A	Visually similar to 15-001 and 16-003
N/A N/A	Storage Shed	Insido	(ACM) Brick Pattern Lipoloum	20	sq. it	Good	Vos	N/A N/A	2008	N/A N/A	Visually similar to 15-001 and 16-003
2	Warehouse	Rooms	(ACM) Brick/Speckled/Beige Pattern Linoleum	400	sq. it	Good	Vas	N/A N/A	2008	N/A	Visually similar to 15-009 and 16-002
4	Watehouse	Rooms	(Acia) Brick/Speckled/Beige Pattern Einoledin	400	5 4 . It	0000	165	I BP-064	2008	10 900 ppm	Visually similar to 13-005 and 10-002
1	Warehouse	Interior door	(LBP) Orange Paint	1	per	Good	N/A	WARE-P01	2000	3.8 mg/L	
N/A	Warehouse	Warehouse	(ODS) 1 Refrigerator and 6 fire extinguishers	7 per N/A N/A		N/A	2008	N/A	Unknown quantity of Refrigerant		
1	Sub Station # 5	Door	(LBP) Exterior Brown Paint	1	per	Good	N/A	LBP-022	2008	14,400 ppm	Visually similar to RVRST-P01 (non- leachable)
N/A	Substation	South of Sewage Treatment Plant	(ACM) Interior Walls, Transite Board	120	ft²	Good	No	SUBST-01	42997	70 - 80% CH	
N/A	Concrete Block	Exterior	(LBP) Orange Paint	1	per	Good	N/A	LBP-025	2008	32,100 ppm	Paint worn off, sampling not possible
N/A	Bone Yard	Scrap Machine	(LBP) Dark Green Paint	N/A	per	Good	N/A	LBP-028	2008	10,800 ppm	Machines removed from site
N/A	Bone Yard	Scrap Machine	(LBP) Orange Paint	N/A	per	Good	N/A	LBP-030	2008	51,100 ppm	Machines removed from site
N/A	Bone Yard	Scrap Machine	(LBP) Yellow Paint	N/A	per	Good	N/A	LBP-031	2008	33,900 ppm	Machines removed from site
N/A	Bone Yard	Inroughout	(ODS) 4 Fire extinguishers	4	per	N/A	N/A	N/A	2018	N/A	Democrand from alte
N/A	Generator Trailer	Exterior Throughout building	(LBP) White Paint	1	per	Good	N/A	LBP-032	2008	3,150 ppm	Removed from site
Interior	Generator Trailer	Throughout building	Mercury vapor in Fluorescent Lights	25	per	Good	N/A	N/A	2018	N/A	
N/A	Generator Trailer	Interior	(ODS) 1 Eiro extinguisbor	14	per	N/A	N/A N/A	N/A N/A	2018	N/A.	
N/A	Generator Trailer	Interior			per	N/A	N/A	I BP-038	2018	17 400 ppm	
N/A	Trailer (Seacan) 4462324	Exterior	(LBP) Light Blue Paint	153	sq. ft	Good	N/A	TR-P01	2000	66.0 mg/L	
N/A	All Substations	Exterior door	(LBP) Brown Paint	1	per	Good	N/A	N/A	2008	14,400 ppm	Visually similar to LBP-022 and RVRST-P01 (non-leachable)
N/A	Diesel Transfer Building	Diesel Transfer Bldg., Green	(ACM) All Corrugated Steel Joints, Exterior White Mastic	All	Steel Joint	Good	No	Fuel-01	01/22/2018	5 - 10% CH	
N/A	New Landfill	Old incinerator at the New Landfill	(ACM) Gasket on Old Incinerator	1	per	Good	No	INCIN-01	01/22/2018	95 - 100% CH	
N/A	Crusher Building	Upper & Lower Office Walls/Ceiling	(ACM) DWJC, Layer 1 White/Blue Coating	200	sq. ft	Good	No	CRU-01	01/22/2018	1 - 5% CH	
N/A	Crusher Building	Railings	(LBP) Exterior Red Paint	N/A	per	Good	N/A	CRU-P01	42997	0.29 mg/L	
1	Ventilation Adit	Vaporizer Room by Main Vent Raise Bldg.	(ACM) Gaskets on many pipes	Multiple	per	Good	Yes	Vent-02	42997	85 - 90% CH	
1	Freshwater Pump Station	Exterior wall	(ACM) Brown Mastic	5	sq. ft	Good	No	RVRPMP1	42997	10 - 20% CH	
1	Freshwater Pump Station	Exterior wall	(ACM) Off-White Mastic	5	sq. ft	Good	No	RVRPMP2	42997	10 - 20% CH	
Interior	Freshwater Pump Station	Throughout building	Mercury Vapor in Fluorescent Lights	4	per	Good	N/A	N/A	2018	N/A	
Interior	Freshwater Pump Station	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	2	per	Good	N/A	N/A	2018	N/A	
N/A	Freshwater Pump Station	Interior	(ODS) Fire extinguishers	4	per	Good	N/A	N/A	2018	N/A	
N/A	Diesel Fuel Tank Storage	N/A	(ODS) 1 Fire extinguisher	1	per	N/A	N/A	N/A	2018	N/A	
Interior	Diesel Fuel Tank Storage	Two Tanks	(LBP) Fuel Tanks (Orange)	2180	sq. ft	Good	N/A	P01	10/3/2017	mg/L	
N/A	Copper Concentrate Shed	N/A	(ODS) 2 Fire extinguishers	2	per	N/A	N/A	N/A	2018	N/A	
N/A	Wastewater Plant	Wastewater Plant	Various Chemicals	Small amounts	N/A	N/A	N/A	N/A	42997	N/A	
N/A	Compressor Building	Interior	Waste OII	1	Drum	N/A	N/A	N/A	42997	N/A	
N/A N/A	Compressor Building		Staining on Floor	4 N/A		N/A N/A	N/A N/A	N/A N/A	42997	N/A N/A	
Exterior	Bone Vard	Exterior	Potassium amylyanthate	5	Drume	N/A	N/A	N/A	42997	N/A	
Ground	Portal Fueling Area	Exterior	Diesel Fuel Tank	30,000	Litres	N/A	N/A	N/A	42997	N/A	
1	Shed (Old Tank Farm)	Interior	Gear Lubricant	19	Pails	N/A	N/A	N/A	42997	N/A	
1	Shed (Old Tank Farm)	Interior	Hydraulic Fluid	>100	Pails	N/A	N/A	N/A	42997	N/A	
N/A	Old Tank Farm	Exterior	Diesel Contaminated Water	1	Tote	N/A	N/A	N/A	42997	N/A	
N/A	Old Tank Farm	Exterior	Waste Oil	1	Drum	N/A	N/A	N/A	42997	N/A	
N/A	Old Tank Farm	Exterior	Potassium Ethyl Xanthate	2	Drum	N/A	N/A	N/A	42997	N/A	
N/A	Old Tank Farm	N/A	(ODS) 5 Fire extinguishers	5	per	N/A	N/A	N/A	2018	N/A	
Interior	Tailings shed	Throughout building	Mercury Vapor in Fluorescent Lights	2	per	Good	N/A	N/A	2018	N/A	
Interior	Tailings shed	Throughout building	Polychlorinated Biphenyls (PCB) in Light Ballasts	1	per	Good	N/A	N/A	2018	N/A	
N/A	Tailings shed on the upper road	Shed on the upper road by the trailings pond	(ODS) 4 Fire extinguishers	4 per N/A		N/A	N/A	N/A	2018	N/A	
N/A	Airstrip shed	Shed by the airstrip	(ODS) 1 Fire extinguisher	1 per		N/A	N/A	N/A	2018	N/A	
N/A	Gaskets	Throughout the site	(ACM) Gaskets on pipes and tanks	Multiple	per	Good	No	N/A	42997	N/A	Visually similar to Vent-02
Legend:											
Asbestos containing materials (ACMs) Mercury Containing Equipment Radioactive Smoke Detectors C				CH: Chrysotile a	sbestos			Leachable Lead ba	ased Paint (LB	?)	TB: Throughout building
Lead based Paint (LBP) Miscellaneous Chemicals Glycol			ppm: parts per n	nillion, mg/L: millig	rams per litre		Mercury Vapor in	Fluorescent Lig	jhts		
Polychlorinated I	Biphenyls (PCB) in Light Ballasts	Mould, Leachable lead risers	Ozone Depleting Substances (ODS)	DWJC: Drywall j	oint compound	N/A: Not Applicable					





AEC 49: Me	etal Pile	Near Mill	Separator
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Area Description									
Location	Northwest of Mill Buildir	ng.							
Topography	Generally Flat with sligh	t grade to northeast.							
Surface Drainage	Northeast.								
Background	Scrap metal pile from hi	storical mill separator of	perations.						
Historical Assessme	nt Information			-					
	Number of test pits			0					
Phase II Environmental	Number of surface soil	samples		0					
Site Assessment	Number of soil samples	s analyzed		0					
(EBA, 2008)	arbon impacts	0							
	Number of soil samples	s with metal impacts		0					
Comments: Not assessed – New AEC									
2017/2018 Environme	ental Site Assessmen	t Details							
Environmental Site Ass	essment Scope								
Utility Locate SOP followe	OP followed? Yes								
EM 31 Geophysics Comp	sics Complete? N/A								
Number of test pits advar	nced			5 (2017)					
Number of boreholes adv	anced			0					
Number of hand auger lo	cations advanced			0					
Number of soil samples s	ubmitted for laboratory cl	nemical analysis		6 (2017)					
Number of boreholes con	npleted as groundwater m	nonitoring wells		0					
Number of historical grou	ndwater monitoring wells			0					
Number of groundwater s	amples collected			N/A					
Number of sediment and	surface soil samples colle	ected		N/A					
Geophysics Findings									
N/A									
Soil Investigation and C	conditions								
Maximum Depth of Investigation	2.75 mbgs (September	12, 2017)							
General Stratigraphy									
Description	Depth from (mbgs)	Depth to (mbgs)		Observations					
Various intervals of sand, gravel and boulders	0	2.75	Fill soil. Buried v observed in seve observed in test	vood and metal debris eral test pits. PHC staining pit 17A49TP1.					
Combustible Vapour Co	oncentrations (CVCs)								
Ranged from 0.2 ppm in	17A49TP1-4 to 4.3 ppm i	n sample 17A49TP4-1.							
Groundwater Condition	s								
Depth to Groundwater	N/A								
Free Product	N/A								



AEC 49: Metal Pile Near Mill Separator

2017/2018 Environmental Site Assessment Results Summary

- Figure A49-1 shows test pit locations.
- Figure A49-2 shows groundwater elevation contours
- Table A49-1 summarizes soil lab results relative to guidelines.

General Site Observations

- A pile of scrap metal was observed at newly identified AEC.
- Buried debris including metal and wood was observed in several test pits advanced.
- PHC staining observed in test pit 17A49TP1 at depth of approximately 0.2 mbgs.
- No additional work was done in this area in 2018.

Soil: Petroleum Hydrocarbons (PHC)

- Laboratory results less than guidelines with exception of:
 - Sample 17A49TP5-1 at depth of 0.25 mbgs contained PHCs greater than guidelines.

Soil: Metals

- Generally high metals concentrations with multiple exceedances of CCME CEQGs including arsenic, barium, cadmium, copper, molybdenum, selenium, tin, and zinc.
- The following metals also exceeded preliminary background concentrations:
 - Cadmium (17A49TP2 at 0.3 mbgs, 17A49TP3 at 0.2 mbgs, 17A49TP4 at 0.25 mbgs).
 - Selenium (all samples tested).
 - Zinc (17A49TP2 at 0.3 mbgs, 17A49TP3 at 0.2 mbgs).

Soil: Other PCOCs (PAHs)

Laboratory results less than guidelines.

Soil: Routine (pH)

Laboratory results within guidelines.

Groundwater: Petroleum Hydrocarbons

N/A

Groundwater: Metals/Routine Parameters

N/A

Groundwater: Other PCOCs

N/A

Sediment: Petroleum Hydrocarbons

N/A

Sediment: Metals

N/A

Sediment: Other PCOCs

N/A

Surface Water: Petroleum Hydrocarbons

N/A

Surface Water: Metals/Nutrients

N/A

Surface Water: Other PCOCs

N/A

Grainsize Analysis

N/A



AEC 49: Metal Pile Near Mill Separator

Environmental Concerns										
Location in AEC	Potential Source(s)	Identified Contaminated Media	Parameters Assessed and Contaminant(s) of Concern (COCs; bold & underline)							
Below and surrounding scrap metal pile	Scrap metal	Soil	Soil: <u>Metals, petroleum hydrocarbons (PHCs)</u> , polycyclic aromatic hydrocarbons (PAHs)							
Discussion (Signif	ficance of Results	5)								
Soils: No PHC impacts w The PHC impacts i PHC impacts appe PAH were not dete Based on current a volumes in affected Various metals exc cadmium and seler	rere measured in stai dentified at 17A49TF dentified at 17A49TF ar to be limited to de acted and are no long assessment results, r d area is 1.0 mbgs. ceeded both CCME 0 nium.	ined soil sample collected P5 have not been horizon P5 have not been vertical opth of 1.0 mbgs. ger considered PCOCs in naximum estimated depth CEQGs, and some exceen	I from 17A49TP1. tally delineated to northwest and northeast. ly delineated, however based on site observations soil at this AEC. n of PHC impacts used to calculate contaminated soil ded preliminary background concentrations, notably							
Attachments										
Figure A49-1 – Soil and Sediment Results										
Figure A49-2 – Groundwater Elevation Contours										
I able A49-1 – Soil Ar	alytical Results									
Test pit Logs										
Photographs										







						A	A49					
		Most Stringent of	Preliminary	17A4	9TP1	17A49TP2	17A49TP3	17A49TP4	17A49TP5			
Parameter	Unit	Referenced	Background	17A49TP1-1	17A49TP1-2	17A49TP2-1	17A49TP3-1	17A49TP4-1	17A49TP5-1			
- unanotor	0	Guidelines ^{1,2,3}	Concentration ⁴	0.3 m	0.25 m	0.3 m	0.2 m	0.25 m	0.25 m			
				9/12/2017	9/12/2017	9/14/2017	9/14/2017	9/14/2017	9/14/2017			
Routine / Salinity					1							
nH	nH I Inite	6-8	NG	7 36	7 28	6.76	6.83	6.92	7.02			
Moisture	%	NG	NG	7.50	7.20	0.70	10.00	5.59	11.8			
Motals	70	110	110	-	1.0	-	10.5	0.00	11.0			
Antimony	ma/ka	20	NG	12	0.7	0.5	0.6	0.9	0.9			
Arsonic	mg/kg	12	64	24.1	15.7	11.1	6.0	14.5	83			
Barium	ma/ka	500	946	832	283	72.1	67.7	203	233			
Beryllium	ma/ka	4	NG	1.2	1.8	2.3	21	1.8	1.3			
Cadmium	ma/ka	1.4	2.8	1.5	23	7.04	6.77	3.17	2.63			
Chromium	mg/kg	64	NG	20	19	14	18	14	13			
Cobalt	mg/kg	40	NG	17.9	27.6	35.6	35.5	30.1	26.1			
Copper	ma/ka	63	NG	667	1590	2050	1960	1690	1310			
Lead	ma/ka	70	NG	12.7	9.8	84	9.2	11.7	10.2			
Mercury	ma/ka	66	NG	0.15	<0.0	1 19	0.95	0.99	1.91			
Molybdenum	ma/ka	5	10	4.2	6	5.5	6.6	4.4	4			
Nickel	ma/ka	45	72	29.3	19.8	12.6	17.8	20	15.8			
Selenium	ma/ka	1	1.7	23	5	6.8	6	4.6	4			
Silver	ma/ka	20	NG	0.5	1	1.3	1.3	1.1	0.8			
Thallium	ma/ka	1	NG	0.4	0.5	0.5	0.6	0.4	0.0			
Tin	ma/ka	5	NG	2.6	4.9	5.4	6.6	4	4			
L Iranium	ma/ka	23	NG	2.8	2.4	2.3	2.9	22	22			
Vanadium	mg/kg	130	160	54	2.4	16	17	25	25			
Zinc	ma/ka	200	462	220	339	959	944	399	438			
Petroleum Hydrocarbons	Inging	200	102						-100			
Benzene	ma/ka	0.03	NG		<0.005	-	<0.005	<0.005	<0.005			
Toluene	ma/ka	0.00	NG		<0.000		<0.000	<0.000	<0.05			
Ethylbenzene	ma/ka	0.082	NG		<0.00	-	<0.00	< 0.01	<0.01			
Xvlenes (m & p)	ma/ka	NG	NG		-	-	-	-	-			
Xylene (m)	ma/ka	NG	NG		<0.02		<0.02	<0.02	<0.02			
Xylene (n)	ma/ka	NG	NG		<0.02	-	<0.02	<0.02	<0.02			
Xylenes Total	ma/ka	0.1	NG		<0.05	-	<0.05	<0.05	<0.05			
Volatile Hydrocarbons (VH6-10)	ma/ka	NG	NG		-	-	-	-	-			
F1 (C6-C10)	ma/ka	30	NG		<10	-	<10	<10	<10			
VPH C6-C10	ma/ka	NG	NG		-	-	-	-	-			
E1 (C6-C10 / BTEX CORRECTED)	ma/ka	30	NG		<10	-	<10	<10	<10			
F2 (C10-C16)	ma/ka	150	NG		<20	-	<20	<20	<20			
E3 (C16-C34)	ma/ka	300	NG		260	-	293	250	781			
F4: (C34-C50)	ma/ka	2800	NG		107	-	93	54	219			
VPHs	ma/ka	NG	NG	-	-	-	-	-				
Polycyclic Aromatic Hydrocarbons (PAHs)	1 5 5											
IACR (CCME)	mg/kg	1	NG	-	<0.6	-	<0.6	<0.6	<0.6			
B(a)P Total Potency Equivalent	mg/kg	0.6	NG	-	< 0.05	-	< 0.05	< 0.05	< 0.05			
2-methylnaphthalene	mg/kg	NG	NG	-	< 0.005	-	< 0.005	< 0.005	< 0.005			
Acenaphthene	mg/kg	NG	NG	-	< 0.005	-	< 0.005	0.005	< 0.005			
Acenaphthylene	mg/kg	NG	NG	-	<0.005	-	< 0.005	< 0.005	< 0.005			
Anthracene	mg/kg	2.5	NG	-	< 0.004	-	< 0.004	< 0.004	< 0.004			
Benz(a)anthracene	mg/kg	0.1	NG	-	< 0.03	-	<0.03	<0.03	<0.03			
Benzo(a) pyrene	mg/kg	0.1	NG	-	< 0.03	-	<0.03	<0.03	<0.03			
Benzo(b)fluoranthene	mg/kg	0.1	NG	-	<0.05	-	<0.05	< 0.05	< 0.05			
Benzo(b+j)fluoranthene	mg/kg	NG	NG	-	<0.05	-	<0.05	< 0.05	< 0.05			
Benzo(e)pyrene	mg/kg	NG	NG	-	-	-	-	-	-			
Benzo(g,h,i)perylene	mg/kg	NG	NG	-	<0.05	-	<0.05	< 0.05	< 0.05			
Benzo(k)fluoranthene	mg/kg	0.1	NG	-	<0.05	-	< 0.05	< 0.05	<0.05			
Chrysene	mg/kg	NG	NG	-	< 0.05	-	< 0.05	< 0.05	<0.05			
Dibenz(a,h)anthracene	mg/kg	0.1	NG	-	<0.005	-	< 0.005	< 0.005	< 0.005			
Fluoranthene	mg/kg	50	NG	-	<0.01	-	<0.01	<0.01	<0.01			
Fluorene	mg/kg	NG	NG	-	<0.02	-	<0.02	< 0.02	<0.02			
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	NG	-	<0.02	-	<0.02	<0.02	<0.02			
Naphthalene	mg/kg	0.013	NG	-	<0.005	-	< 0.005	< 0.005	< 0.005			
Phenanthrene	mg/kg	0.046	NG	-	<0.02	-	<0.02	<0.02	<0.02			
Pyrene	mg/kg	0.1	NG	-	<0.01	-	<0.01	<0.01	0.01			
Benzo(j)fluoranthene	ug/g	NG	NG	-	<0.05	-	<0.05	<0.05	<0.05			
Volatile Organic Compounds (VOCs)												
1-Methylnaphthalene	mg/kg	NG	NG	-	<0.005	-	< 0.005	<0.005	< 0.005			
			Sample ID	8728615	8728622	8736064	8736068	8736073	8736074			
			ah Danart Nurshan	177261400	177261400	177262214	177262214	177262214	177262214			

Table A49-1: Soil Analytical Results

Notes:

Notes: 1 - Canadian Council of Ministers of the Environment (CCME) Canada-Wide Standards (CWS) for Petroleum Hydrocarbons (PHC) in Soil (CCME 2008) 2 - Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (CEQG) - Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME 1999) 3 - Northwest Territories Environmental Guideline for Contaminated Site Remediation (NWT CSR 2003) 4 - Preliminary Background Concentration *[talic - Laboratory* detection limit is greater one or more referenced guidelines MC - No avideline

 Italic - Laboratory detection limit is greater one or more referenced guidelines

 NG - No guideline

 Shaded - Exceeds most stringent CCME CEQG or CWS PHC land-use guideline value

 Bold - Exceeds most stringent NWT CSR land-use guideline value

 Bold and Shaded - Exceeds most stringent CCME CEQC or CWS PHC land-use guideline value, and exceeds most stringent NWT CSR land-use guideline value

 Rod - Exceeds Preliminary Background Concentration

 N/A - Not applicable

 Blank - Not analyzed



	North American	Testpit No) :	1	7A49TP	1						
	Γυ	ngsten Corporation	Project: Phase III Environ	ment	tal Site	Assessment	Projec	t No: ENW.WENW03039-02 1	Task 00)2.2.2.6		
•		I td	Location: Cantung Mine				Groun	d Elev: 1154.775 m				
			Tungsten, Northwest Terr	itorie	es		UTM: 540120.936 E; 6870986.918 N; Z 9					
Depth (m)	lethod	Soil	1	Iple Type	le Number			Notes and	ackfill	evation (m)		
	Z	Description		Sam	Samp			Comments		Ē		
					0,	■ Vapour readings (p	pmv) 🔳					
		SAND (GLACIAL TILL FILL) - silty, some gravel, damp,	loose, reddish brown, metal,			30 100 130	200			-		
-		 black staining, slight hydrocarbon odour on west wal 	I	\mathcal{N}	1-2 I 1-1 I							
-		 some cobbles, some boulders, damp, dense, brown, staining, no discernible hydrocarbon odour 50 mm broken insulated pipe with heat trace 	no visible debris, no visible							- - 1154—		
- 1 - -	ated	BOULDERS (FILL) - sandy, some gravel, some cobbles	, damp, loose, brown		1-3					-		
- - - -	Excava				1-4					- - 1153—		
- 2 - - - - -												
- - 3 -		END OF TESTPIT (2.75 metres) Note: Stopped due to refusal Backfilled at completion			1-5					1152— - - -		
- - -										- - - 1151—		
- 4 - -										- - - -		
-										- - - 1150		
5			a <i>i i i i i i i i i i</i>							_		
			Contractor: NATC	T :	he -1.1		Comp	letion Depth: 2.75 m				
7	-	TETRA TECH	Urilling Rig Type: Rubber Tire backhoe					Start Date: 2017 September 12				
			Logged By: INH				Completion Date: 2017 September 12					
			Reviewed By: JVV				rage					

	North American	Testpit No	o:	1	7A49TP	2						
٦	Γu	ngsten Corporation	Project: Phase III Environ	men	tal Site	Assessment	Projec	xt No: ENW.WENW03039-02 T	ask 00)2.2.2.6		
		l td	Location: Cantung Mine				Grour	nd Elev: 1155.169 m				
		Ltd.	Tungsten, Northwest Terr	itorie	es		UTM:	540114.586 E; 6870986.742 N	l; Z 9			
					j.							
Depth (m)	Method	Soil Description		Sample Type	Sample Numbe	■ Vapour readings (p	omv) ■ 200	Notes and Comments	Backfill	Elevation (m)		
		GRAVEL (FILL) - sandy, some silt, some cobbles, damp and metal debris	, dense, brownish grey, wire							- 1155		
-	avated	- dense, reddish grey			2-1 2-2					-		
-	ШXС	- some boulders, trace silt, brown, wood and metal de	bris				- - - - - - - -					
- 1		END OF TESTPIT (1.0 metre)		$\overline{\ }$	2-3					-		
-		Note: Backfilled at completion								1154—		
-										-		
-										-		
										-		
-										- 1153—		
-										-		
-										-		
-										-		
3 -										-		
-										1152		
-										-		
-										-		
- 4										-		
-										1151		
-										-		
-												
- - 5										-		
			Contractor: NATC					Completion Depth: 1 m				
		TETRA TECH	Drilling Rig Type: Track Mounted					Start Date: 2017 September 14				
	U		Logged By: NH					Completion Date: 2017 September 14				
			Reviewed By: JW				Page 1 of 1					

	North American	Testpit No: 17A49TP3										
1 1	Ги	ngsten Corporation	Project: Phase III Environ	nen	tal Site	e Assessment	Projec	ct No: ENW.WENW03039-02 T	ask 00)2.2.2.6		
•			Location: Cantung Mine	-			Grour	nd Elev: 1154.847 m				
		Llu.	Tungsten, Northwest Terri	torie	es		UTM:	540117.747 E; 6870986.946 N	l; Z 9			
Depth (m)	Method	Soil Description		Imple Type	nple Number			Notes and Comments	Backfill	Elevation (m)		
0				S	Sar	■ Vapour readings (p 50 100 150	omv) 🔳 200					
_		GRAVEL (FILL) - sandy, some silt, some cobbles, damp and metal debris	o, dense, brownish grey, wire		2.4				$\langle \rangle \rangle$	_		
- - -	Excavated	- dense, reddish brown	hris		3-1					-		
-					3-2					- 1154—		
1 -		END OF TESTPIT (1.0 metre) Note: Backfilled at completion					:		7777.	-		
- - - -										-		
- 2										1153-		
-										-		
-										-		
- - - 3										- 1152 -		
- - -										-		
- - - - - 4										- - 1151— -		
- - -										- - -		
- - - - 5										- - 1150— -		
			Contractor: NATC					Completion Depth: 1 m				
		TETRA TECH	Drilling Rig Type: Track Mounted					Start Date: 2017 September 14				
	U		Logged By: NH					Completion Date: 2017 September 14				
			Reviewed By: JW				Page 1 of 1					

	North American	Testpit N	0:	1	7A49TP4	4						
l 1	Γu	ngsten Corporation	Project: Phase III Environ	men	tal Site	e Assessment	Projec	xt No: ENW.WENW03039-02 T	ask 00)2.2.2.6		
-		l td	Location: Cantung Mine				Groun	nd Elev: 1154.729 m				
		Ltd.	Tungsten, Northwest Terr	ritorie	es		UTM: 540131.927 E; 6870991.812 N; Z 9					
	q	2.11	-	ype	mber		.			n		
Deptf (m)	Metho	Description		Sample 1	Sample N	■ Vapour readings (p	omv) 🔳	Comments	Backfi	Elevati (m)		
-		SAND (FILL) - silty, some gravel, some cobbles, damp, mm thick)	dense, reddish brown, (300			50 100 150 2	200					
-	Excavated	GRAVEL (FILL) - sandy, some cobbles, some boulders, brown, wood and metal debris	trace silt, damp, dense,		4-1					- - - 1154		
- 1 -		END OF TESTPIT (1.0 metre) Note: Backfilled at completion								-		
-										_ - - 1153— -		
- 2 - - - -										-		
- - - 3 -										- 1152 - - - -		
- - - - -										- - - 1151— - -		
-										- - - - 1150-		
5										-		
			Contractor: NATC	tractor: NATC Completion Depth: 1 m								
		TETRA TECH	Drilling Rig Type: Track Mounted					Start Date: 2017 September 14				
	U		Logged By: NH					Completion Date: 2017 September 14				
			Reviewed By: JW				Page 1 of 1					

	North American	Testpit No	D :	1	7A49TP	5						
	Гu	ngsten Corporation	Project: Phase III Environ	men	tal Site	e Assessment	Projec	zt No: ENW.WENW03039-02 T	ask OC)2.2.2.6		
		btd	Location: Cantung Mine				Grour	nd Elev: 1154.968 m				
			Tungsten, Northwest Terr	itorie	es		UTM:	540128.479 E; 6870979.587 N	; Z 9			
o Depth (m)	Method	Soil Description		Sample Type	Sample Number	■ Vapour readings (p 50 100 150	omv) ■ 200	Notes and Comments	Backfill	Elevation (m)		
-		SAND (FILL) - silty, some gravel, trace cobbles, damp, o	lense, brown						$\langle \rangle \rangle$	-		
	Excavated	- gravelly, some silt, some cobbles			5-1							
- 1		END OF TESTPIT (1.0 metre)		1		·····	·····			1154-		
- - - - - - - - - - - - - - - - - - -										- - - - 1153— - - - - - - - - - - - - - - - - - - -		
- - - - - 3 - - -										- - 1152— - - - - -		
- - - - - - - - -										- - - 1151 - - - - - - - - - - - - - - -		
F										-		
5										-		
	<u> </u>		Contractor: NATC	1	1	1	Comp	letion Depth: 1 m		1130-		
			Drilling Rig Type: Track Mounted				Start Date: 2017 September 14					
			Logged By: NH				Completion Date: 2017 September 14					
			Reviewed By: JW					Page 1 of 1				



Photo 1: Facing southeast at crusher building. Scrap metal debris seen to the left of the photo with ditch in foreground. (October 5, 2017)



Photo 2: Metal and pipe debris in testpit 17A49TP1. (October 12, 2017)





Photo 3: Metal and pipe debris area seen to the right of photo (circled). Photo provided by NATC. (May 29, 2014)





Area Description											
Location	Northeast side of the ma Shed).	ain road and across a s	ide road from AEC 3	5 (Copper Concentrate							
Topography Surface Drainage	Generally flat on surface topography slopes mode northeast to the Flat Riv	■ with a slight slope to the slope to the slope to the slope to slope t	ne northwest. Beyor dine Creek and moo	nd the AEC boundary, the derately north and							
Surface Drainage	Northeast.										
Background	AEC 50 was created to a leaked residual quantitie be increasing (at time of not visible.	store used drums and t es of liquid. Surface stai f 2017 program); there i	ires. Some overturne ning seen. The num nay be other areas	ed drums may have ber of barrels appears to of stained soil currently							
Historical Assessme	ssment Information										
No historical assessment conducted.											
2017/2018 Environmental Site Assessment Details											
Environmental Site Assessment Scope											
Utility Locate SOP followe	Yes										
EM 31 Geophysics Comp	olete?			No							
Number of test pits advar	nced	4 (2018)									
Number of boreholes adv	/anced			0							
Number of hand auger lo	cations advanced			3 (2017)							
Number of soil samples s	submitted for laboratory ch	nemical analysis		3 (2017), 8 (2018)							
Number of boreholes con	npleted as groundwater m	onitoring wells		0							
Number of historical grou	ndwater monitoring wells			0							
Number of groundwater s	amples collected			N/A							
Number of sediment and	surface soil samples colle	ected		N/A							
Geophysics (EM 31 App	parent Terrain Conductiv	vity) Findings									
N/A											
Soil Investigation and C	conditions										
Maximum Depth of Investigation	1.0 mbgs (June 29, 201	8)									
General Stratigraphy											
Description	Depth from (mbgs)	Depth to (mbgs)	Ob	servations							
Sand, silt and gravel	0	1.0	Fill soil with hydro at 17A50HA3	carbon staining observed							
Combustible Vapour Co	oncentrations (CVC)										
CVCs were all less than 2	10 parts per million by vol	ume (ppmv)									
Groundwater Condition	S										
Depth to Groundwater	N/A										
Free Product	N/A	/A									

AEC 50: Drum Storage Area



AEC 50: Drum Storage Area

2017/2018 Environmental Site Assessment Results Summary

- Figure A50-1 shows hand auger and test pit locations.
- Table A50-1 summarizes soil lab results relative to guidelines and management limits.

General Site Observations

- More than half of the area of AEC 50 is currently covered with stockpiles of used drums, barrels and tires.
- Small surface-stained areas are visible beside some of the drums.

Soil: Petroleum Hydrocarbons (PHCs, PAHs)

2017

- PHCs greater than the CCME/CSR guidelines at the following locations:
 - Sample 17A50HA2 at a depth of 0.3 mbgs. This soil sample also exceeded the management limits for PHC F3.
 Sample 17A50HA3 at a depth of 0.3 mbgs.
- PAHs less than the CCME/CSR guidelines; however, laboratory detections limits were raised above the guidelines for 17A50HA2 sample due to matrix interference.

2018

 Four test pits (18A50TP1 to 18A50TP4) were excavated at approximately 5 m to 10 m step-out distances surrounding 17A50HA2 to delineate the PHC management limit exceedance found at 0.3 mbgs. Laboratory results from the two soil samples tested for PHCs F2-F4 at each of the four test pit locations were less than the management limits.

Soil: Metals

- Various metals exceeded CCME CEQGs including arsenic, barium, cadmium, copper, molybdenum, and selenium.
- Barium exceeded its preliminary background concentrations at 17A50HA2 at 0.3 mbgs

Soil: Other PCOCs (glycols, VOCs)

• Laboratory results less than detection limits and guidelines.

Soil: Routine (pH)

- Laboratory results within guidelines.
- Groundwater: Petroleum Hydrocarbons (PHCs and PAHs)

NA

Groundwater: Metals/Routine Parameters

NA

Groundwater: Other PCOCs (Nutrients)

NA

Sediment: Petroleum Hydrocarbons

N/A

Sediment: Metals

N/A

Sediment: Other PCOCs

N/A

Surface Water: Petroleum Hydrocarbons

N/A

Surface Water: Metals/Nutrients

N/A Surface Water: Other PCOCs

N/A



AEC 50: Drum Storage Area

Environmental Concerns										
Location in AEC	Potential Source(s)	Identified Contaminated Media	Parameters Assessed and Contaminant(s) of Concern (COCs; bold & underline)							
Surface of whole area	Leaks, spills from drum storage, metal oxidation and leaching.	Soil	Soil: <u>Metals</u> , <u>petroleum hydrocarbons (PHCs)</u> , glycols, polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs)							
Discussion (Significance of the Results)										
 Discussion (Significance of the Results) Soils: The hand auger locations were advanced where staining was observed on the surface. Two of the twelve soil samples submitted for analysis contained PHCs greater than the CCME/CSR guidelines. One of the two PHC impacts in soil contained PHCs concentration greater than the management limits. The extent of soil containing PHC concentrations greater than the management limits was vertically delineated in 2018. Given that the exceedance is associated with a surficial stain, the estimated depth of PHC impacts greater than the management limits used to calculate the contaminated soil volume is 0.5 mbgs. Horizontal and vertical delineation of metals has been achieved. Glycols and VOCs were not detected and are no longer considered PCOCs in soil at AEC 50. Observed metals concentrations similar to other areas of the site and unlikely to be related to impacts from the Drum Storage Area. 										
Attachments										
Figure A50-1 – Soil ar	nd Sediment Results									
I able A50-1 – Soll An	ialytical Results									
Hand Auger Logs										
Appendix A50 Photog	raphs									



LEGEND



- Area
- 2017 Borehole (BH)
- 2017 Hand Auger (HA)
- 2017/2018 Testpit (TP)
- 2017 Surface Water/Sediment Sample (SW/SS)
- Historical Shallow Soil Sample
- Historical Surface Water Sample

Soil/Sediment Analytical Results

- O PHC Impacts
- 0 No PHC Impact
- Metals exceedance of preliminary background concentrations, or in the absence of background concentrations, exceedance of CCME guidelines
- ----- Road
- ---·Ditch
- Watercourse
- Contour (2 m)





NOTES All locations and area boundaries are approximate. Base data source: Data provided by INAC (2013). Drone imagery at the borrow pit, tailings ponds, and interceptor ditch collected in 2018.

STATUS ISSUED FOR USE **CANTUNG MINE** PHASE III ESA

> **AEC 50** Drum Storage Area **Soil and Sediment Results**

UTM Zone 9			NAD8	3	
Scale	: 1:250			-	
5 2.5	0 Metres			5	
FILE NO. WENW03039-03_Sum	mary_A	.50-1.m	xd		
OFFICE	DWN	CKD	APVD	REV	
Tt-VANC	SL	BB	BB	0	A 50 1
DATE June 22, 2020	PROJ ENW.\	ECT NO). 03039-0)3	A30-1

				AEC						AE	C 50			
				Location	HA1	HA2	HA3	TP1-1	TP1-3	TP2-1	TP2-1	TP2-3	TP3-1	-
				Sample Depth	0.3 m	0.3 m	0.3 m	0.3 m	1.0 m	0.3 m	0.3 m	1.0 m	0.3 m	
				Field ID	17A50HA1-1	17A50HA2-1	17A50HA3-1	18A50TP1-1	18A50TP1-3	18A50TP2-1	18A50BTP2-1	18A50TP2-3	18A50TP3-1	18A
				Sample Date	5-Oct-2017	5-Oct-2017	5-Oct-2017	29-Jun-2018	29-Jun-2018	29-Jun-2018	29-Jun-2018	29-Jun-2018	30-Jun-2018	30-
			Laborate	ory Report Number	8807804	8807806	8807813	18Y358151	18Y358151	18Y358151	18Y358151	18Y358151	18Y358151	18
			Lat	boratory Sample ID	17V270680	17V270680	17V270680	9376732	9376734	9376735	9376736	9376738	9376741	9
Parameter	Unit	CCME ^{1,2} and NWT CSR ³	Background Concentration ⁴	Management Limits ⁵										
Physical Parameters														
pН	pH Units	6-8	-	-	7.8	7.76	7.59	-	-	-	-	-	-	
Moisture	%	-	-	-	8.9	12	6.84	17.8	17.2	8.7	9.8	10.7	12.2	
Metals														
Antimony	mg/kg	20	-	-	0.4	1.7	0.4	-	-	-	-	-	-	
Arsenic	mg/kg	12	64	-	<u>14</u>	<u>29.8</u>	7.5	-	-	-	-	-	-	
Barium	mg/kg	500	946	-	222	<u>1110</u>	179	-	-	-	-	-	-	
Beryllium	mg/kg	4	-	-	0.9	1	1.3	-	-	-	-	-	-	
Cadmium	mg/kg	1.4	2.8	-	0.7	1.61	1.02	-	-	-	-	-	-	
Chromium	mg/kg	64	-	-	21	30	14	-	-	-	-	-	-	
Cobalt	mg/kg	40	-	-	10.8	16.2	12.1	-	-	-	-	-	-	
Copper	mg/kg	63	-	-	127	110	312	-	-	-	-	-	-	
Lead	mg/kg	70	-	-	14.3	25.3	19.7	-	-	-	-	-	-	
Mercury	mg/kg	6.6	-	-	0.45	0.17	0.79	-	-	-	-	-	-	
Molybdenum	mg/kg	5	10	-	6.4	4.5	2	-	-	-	-	-	-	
Nickel	mg/kg	45	72	-	17.3	43.3	11.2	-	-	-	-	-	-	
Selenium	mg/kg	1	1.7	-	0.6	0.9	1.3	-	-	-	-	-	-	
Silver	mg/kg	20	-	-	<0.5	<0.5	< 0.5	-	-	-	-	-	-	
Thallium	mg/kg	1	-	-	0.3	0.4	0.4	-	-	-	-	-	-	
Tin	mg/kg	5	-	-	2.1	1.5	3.5	-	-	-	-	-	-	
Uranium	mg/kg	23	-	-	2.2	2.7	3.6	-	-	-	-	-	-	
Vanadium	mg/kg	130	160	-	31	78	23	-	-	-	-	-	-	
Zinc	mg/kg	200	462	-	82	192	136	-	-	-	-	-	-	
Particle Size			1						1	1				
>75 µm	%	-	-	-	-	-	-	-	-	-	-	74	-	1
Grain Size	N/A	-	-	-	-	-	-	-	-	-	-	Coarse	-	
Petroleum Hydrocarbons			1						1	1				
Benzene	mg/kg	0.03	-	-	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	
Toluene	mg/kg	0.1	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	
Ethylbenzene	mg/kg	0.082	-	-	<0.01	<0.01	<0.01	-	-	-	-	-	-	
Xylenes (m & p)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	
Xylene (m)	mg/kg	-	-	-	<0.02	< 0.02	< 0.02	-	-	-	-	-	-	
Xylene (o)	mg/kg	-	-	-	<0.02	< 0.02	<0.02	-	-	-	-	-	-	
Xylenes Total	mg/kg	0.1	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	
F1 (C ₆ -C ₁₀)	mg/kg	30	-	-	<10	<10	<10	-	-	-	-	-	-	
F1 (C ₆ -C ₁₀) - BTEX	mg/kg	30	-	700	<10	<10	<10	-	-	-	-	-	-	
F2 (C ₁₀ -C ¹⁶)	ma/ka	150	-	1000	<20	29	<20	<20	<20	<20	<20	<20	<20	
F3 (C ₁₆ -C ₃₄)	mg/kg	300	-	2500	<20	18.500	1680	54	34	138	123	<20	23	
F4 (C ₃₄ -C ₅₀)	mg/kg	2800	-	10,000	<20	1510	776	59	33	45	47	<20	<20	<u> </u>
Glycols		1					1	1				1	1	·
Diethylene glycol	ma/ka	-	-	-	<10	<10	<10	-	-	-	-	-	-	
Ethylene glycol	ma/ka	960	-	-	<10	<10	<10	-	-	-	-	-	-	1
Propylene glycol	mg/kg	-	-	-	<10	<10	<10	-	-	-	-	-	-	1
Tetraethylene Glycol	mg/kg	-	-	-	<10	<10	<10	-	-	-	-	-	-	1
Triethylene Glycol	ma/ka	-	· .	· -	<10	<10	<10	· -	-	-	-	-	· ·	1

Notes:

Notes:

 Notes:

 ¹ Canadian Council of Ministers of the Environment (CCME) Canada-Wide Standards (CWS) for Petroleum Hydrocarbons (PHC) in Soil (CCME 2008), for coarse textured soils under Agricultural and Residential/Parkland soils

 ² Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (CEQG) - Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME 1999), for coarse textured soils under Agricultural and Residential/Parkland soils

 ³ Northwest Territories Environmental Guideline for Contaminated Site Remediation (NWT CSR 2003), for coarse textured soils under Agricultural and Residential/Parkland land use

 ⁴ Preliminary Background Concentration

 ⁶ Canadian Council of Ministers of the Environment (CCME) (2008). Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil Technical Supplement, for coarse textured soil under Agricultural land use, management limit pathway only

 ⁶ Canadian Council of Ministers of the Environment (CCME) (2008). Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil Technical Supplement, for coarse textured soil under Agricultural land use, management limit pathway only

 ⁶ DLD - Exceeds Preliminary Background Concentration

 Red - Exceeds Preliminary Background Concentration

 Shaded - Exceeds Integration of on ord referenced guidelines

 tatic
 - Laboratory detection limit is greater than one or more referenced guidelines

 *** Not analyzed or no applicable standard/guideline

TP3-3	TP4-1	TP4-3
1.0 m	0.3 m	1.0 m
A50TP3-3	18A50TP4-1	18A50TP4-3
-Jun-2018	30-Jun-2018	30-Jun-2018
Y358151	18Y358151	18Y358151
376743	9376744	9376746
	,,	
-	-	-
11.1	6.9	9.9
-	-	-
-	-	-
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<20	<20	<20
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				AEC						AE	C 50			
				Location	HA1	HA2	HA3	TP1-1	TP1-3	TP2-1	TP2-1	TP2-3	TP3-1	T
				Sample Depth	0.3 m	0.3 m	0.3 m	0.3 m	1.0 m	0.3 m	0.3 m	1.0 m	0.3 m	1
				Field ID	17A50HA1-1	17A50HA2-1	17A50HA3-1	18A50TP1-1	18A50TP1-3	18A50TP2-1	18A50BTP2-1	18A50TP2-3	18A50TP3-1	18A
				Sample Date	5-Oct-2017	5-Oct-2017	5-Oct-2017	29-Jun-2018	29-Jun-2018	29-Jun-2018	29-Jun-2018	29-Jun-2018	30-Jun-2018	30-
			Laborato	ory Report Number	8807804	8807806	8807813	18Y358151	18Y358151	18Y358151	18Y358151	18Y358151	18Y358151	18
			Lab	oratory Sample ID	17V270680	17V270680	17V270680	9376732	9376734	9376735	9376736	9376738	9376741	9
Parameter	Unit	CCME ^{1,2} and NWT CSR ³	Background Concentration ⁴	Management Limits ⁵										
Polycyclic Aromatic Hydrocarbons (PAHs)														
B(a)P Total Potency Equivalent	mg/kg	0.6	-	-	<0.05	<0.5	< 0.05	-	-	-	-	-	-	
IACR (CCME)	mg/kg	1	-	-	<0.6	<u><6</u>	<0.6	-	-	-	-	-	-	
Acenaphthene	mg/kg	-	-	-	<0.005	<0.05	< 0.005	-	-	-	-	-	-	
Acenaphthylene	mg/kg	-	-	-	<0.005	<0.05	<0.005	-	-	-	-	-	-	
Anthracene	mg/kg	2.5	-	-	<0.004	<0.04	<0.004	-	-	-	-	-	-	+
Benz(a)anthracene	mg/kg	0.1	-	-	<0.03	<u><0.3</u>	<0.03	-	-	-	-	-	-	
Benzo(b)fluoranthene	mg/kg	0.1	-	-	<0.03	<0.5	<0.03	-	-	-	-	-	-	+
Benzo(b+i)fluoranthene	mg/kg	0.1	-	-	<0.05	<0.05	<0.05	-	-			-	-	
Benzo(g,h,i)pervlene	ma/ka	· ·	-	· ·	<0.05	<0.5	<0.05	-	-	· ·	-	-	-	+
Benzo(i)fluoranthene	ma/ka	-	-	-	<0.05	<0.5	< 0.05	-	-	-	-	-	-	
Benzo(k)fluoranthene	ma/ka	0.1	-	-	<0.05	<0.5	< 0.05	-	-	-	-	-	-	
Chrysene	mg/kg	-	-	-	<0.05	< 0.5	< 0.05	-	-	-	-	-	-	
Dibenz(a,h)anthracene	mg/kg	0.1	-	-	< 0.005	< 0.05	< 0.005	-	-	-	-	-	-	
Fluoranthene	mg/kg	50	-	-	<0.01	<0.1	<0.01	-	-	-	-	-	-	1
Fluorene	mg/kg	-	-	-	<0.02	<0.2	<0.02	-	-	-	-	-	-	1
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	-	-	<0.02	<u><0.2</u>	<0.02	-	-	-	-	-	-	
1-Methylnaphthalene	mg/kg	-	-	-	<0.005	< 0.05	< 0.005	-	-	-	-	-	-	
2-Methylnaphthalene	mg/kg	-	-	-	< 0.005	< 0.05	<0.005	-	-	-	-	-	-	
Naphthalene	mg/kg	0.013	-	-	<0.005	<u><0.05</u>	<0.005	-	-	-	-	-	-	
Phenanthrene	mg/kg	0.046	-	-	<0.02	<u><0.2</u>	<0.02	-	-	-	-	-	-	
Pyrene	mg/kg	0.1	-	-	<0.01	<0.1	<0.01	-	-	-	-	-	-	
Volatile Organic Compounds (VOCs)	1	1	1			1	1	1	1	1	1	1	1	
Acetone	mg/kg	-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	
Bromodichloromethane	mg/kg	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-	-	
Bromotorm	mg/kg		-	-	<0.05	<0.05	<0.05	-	-	-	-	-	-	
Bromomethane	mg/kg	-	-	-	<0.05	<0.05	<0.05	-	-	-	-	-	-	+
2-Bulanone	mg/kg	- 0.1	-	-	<0.02	<0.02	<0.02	-	-	-	-	-	-	
Chlorobenzene	mg/kg	0.1	-		<0.02	<0.02	<0.02	-	-		-	-	-	
Chloroethane	mg/kg				<0.05	<0.05	<0.05							+
Chloroform	ma/ka	0.1	-	· ·	<0.05	<0.05	<0.05	-	-	· ·	-	-	-	+
Chloromethane	ma/ka	-	-	· ·	<0.05	<0.05	<0.05	-	-	· ·	-	-	-	+
Dibromochloromethane	ma/ka	-	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	
1,2-Dibromoethane	mg/kg	-	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	
1,2-Dichlorobenzene	mg/kg	0.1	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	1
1,3-Dichlorobenzene	mg/kg	0.1	-	-	<0.05	<0.05	<0.05	-	-	-	-	-	-	
1,4-Dichlorobenzene	mg/kg	0.1	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	
1,1-Dichloroethane	mg/kg	0.1	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	
1,2-Dichloroethane	mg/kg	0.1	-	-	<0.05	<0.05	<0.05	-	-	-	-	-	-	
1,1-Dichloroethene	mg/kg	0.1		-	<0.05	<0.05	<0.05		-			-	-	
1,2-Dichloroethene (cis)	mg/kg	0.1	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	
1,2-Dichloroethene (trans)	mg/kg	0.1	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	+
1,2-Dichloropropane	mg/kg	0.1	-	-	<0.05	<0.05	<0.05	-	-		-	-	-	
1,3-Dichloropropene [cis]	mg/kg		-	-	<0.05	<0.05	<0.05	-	-	-	-	-	-	
1,3-Dichloropropene [trans]	mg/kg		-	-	<0.05	<0.05	<0.05	-	-		-	-	-	
Methylana Chlorida	mg/kg	- 0.1	-	-	<0.1	<0.1	<0.1	-	-		-	-	-	
4 Methyl 2 pentanone	mg/kg	0.1	-		<0.05	<0.05	<0.05	-	-		-	-	-	+
Styrene	ma/ka	0.1		-	<0.0	<0.0	<0.0		-		-	-	-	+
1 1 1 2-Tetrachloroethane	ma/ka			-	<0.05	<0.05	<0.05	-	-		-	-	-	+
1 1 2 2-Tetrachloroethane	ma/ka	0.1		-	<0.05	<0.05	<0.05	-	-		-	-	-	+
Tetrachloroethene	ma/ka	0.1			<0.05	<0.05	<0.05						-	+
1.2.4-Trichlorobenzene	ma/ka	0.05		-	<0.05	<0.05	<0.05						-	+
1,1,1-Trichloroethane	ma/ka	0.1	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	1
1,1,2-Trichloroethane	mg/kg	0.1	-	-	<0.05	< 0.05	< 0.05	-	-	-	-	-	-	+
Trichloroethene	mg/kg	0.1	-	-	<0.01	<0.01	<0.01	-	-	-	-	-	-	1
Trichlorofluoromethane	mg/kg	-	-	-	<0.05	< 0.05	<0.05	-	-	-	-	-	-	1
Vinyl chloride	mg/kg	-	-	-	< 0.05	< 0.05	< 0.05	-	-	-	-	-	-	Τ

Notes:

¹ Canadian Council of Ministers of the Environment (CCME) Canada-Wide Standards (CWS) for Petroleum Hydrocarbons (PHC) in Soil (CCME 2008), for coarse textured soils under Agricultural and Residential/Parkland soils ² Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (CEQG) - Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME 1999), for coarse textured soils under Agricultural and Residential/Parkland soils ³ Northwest Territories Environmental Guideline for Contaminated Site Remediation (NWT CSR 2003), for coarse textured soils under Agricultural and Residential/Parkland land use

Northwest Territories Environmental Guideline for Contaminated Site Remediation (NWT CSR 2003), for coarse textured soils under Agricultural and Residential/Parkland land use ⁴ Preliminary Background Concentration ⁵ Canadian Council of Ministers of the Environment (CCME) (2008). Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil Technical Supplement, for coarse textured soil under Agricultural land use, management limit pathway only <u>BOLD</u> - Exceeds most stringent CCME or NWT CSR standard/guideline Red - Exceeds Preliminary Background Concentration <u>Shaded - Exceeds Management Limits</u>

Italic - Laceto Management Linns [Italic - Laceto Management Linns [Italic - Laceto Management Linns] "- Not analyzed or no applicable standard/guideline

TP3-3	TP4-1	TP4-3
1.0 m	0.3 m	1.0 m
A50TP3-3	18A50TP4-1	18450TP4-3
A0011-0-0	20 Jun 2019	20 Jun 2019
-Jun-2010	10/250151	10/250151
01000101	0076744	0076746
9376743	9376744	9376746
-	-	-
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		North American	Testpit N	0:	1	7A50HA	1			
I п	.	nasten Corporation	Project: Phase III Environ	ment	al Site	Assessment	Proied	zt No: ENW WENW03039-02 1	Task 00	02226
'	u		Location: Cantung Mine							
		Ltd.	Tungsten Northwest Terr	itoric				5/0138 E: 6871226 N: 7.0		
					:5		0111	540156 E, 0671220 N, Z 9		
o Depth (m)	Method	Soil Description		Sample Type	Sample Number	■ Vapour readings (p 50 100 150	opmv) ■ 200	Notes and Comments	Backfill	o Depth (ft)
_	e	SAND AND SILT (FILL) - some gravel, moist, dense, bro	own, medium to coarse gravel						\square	
-	aug				11				$\langle \rangle \rangle$	
-	pu		. for to medium and and		1-1				$\langle \rangle \rangle$	1-
L	Ξ	gravel	n, tine to medium sand and						$\langle \rangle \rangle$	
-		END OF AUGER HOLE (0.5 metres)								2-
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5	1		Contractor:	1			Comp	letion Depth: 0.5 m	I	
			Drilling Rig Type:				Start I	Date: 2017 October 5		
			Logged By: MG				Comp	letion Date: 2017 October 5		
			Reviewed By: JW				Page	1 of 1		

		North American	Testpit No) :	17	Testpit No: 17A50HA2							
Г	.	nasten Corporation	Proiect: Phase III Environr	ment	tal Site	Assessment	Proied	zt No: ENW.WENW03039-02 1	ask 00)2.2.2.6			
· ·	u		Location: Cantung Mine										
		Llu.	Tungsten. Northwest Terri	itorie	s		UTM:	540151 E: 6871208 N: Z 9					
oth ()	por	Soil		e Type	Number		1	Notes and	dill	oth)			
	Met	Description		Sample	Sample	■ Vapour readings (p 50 100 150	pmv) ■ 200	Comments	Bac	o De			
-	ger	SAND (FILL) - some gravel, some silt, moist, dense, bro	wn, (200 mm thick)				:		$\langle \rangle \rangle$				
- -	Hand au	SILT (FILL) - some sand, some gravel, moist, stiff, brown gravel	n, medium to coarse sand and		2-1 ∎		-			1-			
- - -		END OF AUGER HOLE (0.45 metres) Note: Backfilled at completion								2			
-										3			
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-										6-			
- 2										,			
-										7-			
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- 3													
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-										12-			
										13-			
-													
-										14-			
-										15-			
-										16-			
5			Contractor				Com-	lation Donth: 0.45 m					
			Drilling Rig Type:				Start I	Date: 2017 October 5					
	ſĿ		Logged By: MG				Comp	letion Date: 2017 October 5					
			Reviewed By: JW				Page	1 of 1					

	North American		Testpit No: 17A50HA3							
- ٦	.	nasten Corporation	Proiect: Phase III Environr	men	tal Site	e Assessment	Proied	ct No: ENW.WENW03039-02 T	ask 00)2.2.2.6
	, M		Location: Cantung Mine							
		Llu.	Tungsten, Northwest Terri	torie	es		UTM:	540151 E: 6871214 N: Z 9		
							1.0			
Depth (m)	Method	Soil Description		Sample Type	Sample Number	■ Vapour readings (p	opmv) 🔳	Notes and Comments	Backfill	Depth (ft)
0	يد ا	SAND (FILL) - gravelly, some silt, moist, dense, grey, hy	drocarbon staining on surface			50 100 150	200		$\overline{}$	0
Ē	auge		C C		3-1					
-	nd a	END OF AUGER HOLE (0.25 metres)								1-
-	На	Note: Backfilled at completion								111
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5	1		Contractor:			I	Com	letion Depth: 0.25 m		
			Drilling Rig Type				Start I	Date: 2017 October 5		
		I IEIKA IECH	Logged By: MG				Com	letion Date: 2017 October 5		
	_		Reviewed By: JW				Page	1 of 1		

			Testpit No:	18	8A	50TP	1		
		North American	Project: Phase III Environmenta	l Site	Asse	ssment	Project No: E	ENW.WENW03039-03	
		Tungsten Corp.	Location: Cantung Mine				Ground Elev	r: 1126.707 m	
			Cantung, Northwest Territories				UTM: 54015	6.431 E; 6871212.53 N; Z 9	
Depth (m)	Method	Soil Descriptior	1	Sample Type	Sample Number	■ Vapour readi 100 200	ngs (ppmv) ■ 300 400	Notes and Comments	Elevation (m)
- 0.2		SAND - gravelly, trace cobbles, well graded, moist, dark	brown, fine to coarse sand					1	- 1126.6
- 0.4					1-1				1126.4 -
- 0.6	Excavated				1-2				1126.2 -
- 0.8									1126.0—
- 1.0					1-3	•			1125.8 -
-		Location: 5 m northwest of 17A50HA3 Note: Testpit location surveyed by Tetra Tech on Aug	ust 28, 2018					, ,	1125.6 -
- 1.2									- 1125.4 -
- 1.4									-
			Contractor: NATC		•		Completion I	Depth: 1 m	
		TETRA TECH	Drilling Rig Type: Backhoe				Start Date: 2	2018 June 29	
	U		Logged By: BB				Completion	Date: 2018 June 29	
			Reviewed By: SS				Page 1 of 1		

			Testpit No:	18	8A	50TP	2		
		North American	Project: Phase III Environmenta	l Site	Asse	ssment	Project No: E	ENW.WENW03039-03	
		Tungsten Corp.	Location: Cantung Mine				Ground Elev: 1126.579 m		
			Cantung, Northwest Territories				UTM: 54016	3.264 E; 6871205.543 N; Z 9	
Depth (m)	Method	Soil Descriptior	ו	Sample Type	Sample Number			Notes and Comments	Elevation (m)
0						Vapour readi 100 200	ngs (ppmv) 🔳 300 400		
- 0.2		SAND - gravelly, cobbly, well graded, brown, fine to coa cobbles to 300 mm diameter	rse sand, angular to subrounded						- 1126.4 -
- 0.4					2-1				- 1126.2 -
_	Excavated				2-2				- 1126.0—
- 0.6									-
- 0.8					2-3				-
- 1.0		END OF TESTPIT (1.00 metre) Location: ~10 m east of 17A50HA3, 2 m north of drur Note: Testpit location surveyed by Tetra Tech on Aug	n storage ust 28, 2018				<u> </u>		-
- 1.2									1125.4 -
- 1.4									1125.2 -
			Contractor: NATC				Completion	Depth: 1 m	
		TETRA TECH	Drilling Rig Type: Backhoe				Start Date: 2	018 June 29	
	U		Logged By: BB				Completion	Date: 2018 June 29	
			Reviewed By: SS				Page 1 of 1		

		North American	Testpit No:	18	8A	50TP	3		
			Project: Phase III Environmenta	l Site	Asse	ssment	Project No: E	ENW.WENW03039-03	
		lungsten Corp.	Location: Cantung Mine				Ground Elev	: 1126.974 m	
			Cantung, Northwest Territories				UTM: 54014	6.361 E; 6871209.301 N; Z 9	
Depth (m)	Method	Soil Descriptior	1	Sample Type	Sample Number	■ Vapour readi 100 200	ngs (ppmv) ■ 300 400	Notes and Comments	Elevation (m)
		SAND AND GRAVEL (FILL) - well graded, moist, brown	, fine to coarse sand						
- 0.2					3-1∎				- 1126.8 - -
- 0.4									1126.6 -
- 0.6					3-2				1126.4 -
- 0.8									1126.2 -
1.0		END OF TESTPIT (1.00 metre) Location: 5 m southwest of 17A50HA3, empty oil drur Note: Testpit location surveyed by Tetra Tech on Aug	ns 1 m away ust 28, 2018		3-3				1126.0—
- 1.2									1125.8 -
- 1.4									- 1125.6
1.5	1	I	Contractor: NATC	1			Completion I	L Denth: 1 m	1
			Drilling Rig Type: Rackhoe				Start Date: 2	018 June 30	
							Completion	Date: 2018 June 30	
		J	Reviewed By: SS				Page 1 of 1		

			Testpit No:	18	BA	50TP	4		
		North American	Project: Phase III Environmenta	l Site	Asse	ssment	Project No: I	ENW.WENW03039-03	
		lungsten Corp.	Location: Cantung Mine				Ground Elev: 1126.863 m		
			Cantung, Northwest Territories				UTM: 54015	2.459 E; 6871204.251 N; Z 9	
Depth (m)	Method	Soil Descriptior	1	Sample Type	Sample Number	■ Vapour readi	ngs (ppmv) ■	Notes and Comments	Elevation (m)
0		SAND AND GRAVEL (FILL) - trace cobbles, well graded	I, moist, brown, fine to coarse sand,			100 200	300 400		
-		subrounded cobbles to 150 mm diameter							1126.8 -
- 0.2					4-1 1				1126.6 -
- 0.4	cavated				4-2				1126.4 -
- 0.6	ш								1126.2 -
- 0.8					4-3				- 1126.0—
- 1.0		END OF TESTPIT (1.00 metre) Location: 8 m southeast of 17A50HA3, empty oil drur Note: Testpit location surveyed by Tetra Tech on Aug	ns 2 m away ust 28, 2018				<u></u>		1125.8 -
- 1.2									1125.6 -
- 1.4							I		- 1125.4 -
			Contractor: NATC				Completion	Depth: 1 m	
	TL TETRATECH Drilling Rig Type: Backhoe Start Date: 2018 Jun			2018 June 30					
			Logged By: BB				Completion	Date: 2018 June 30	
			Reviewed By: SS				Page 1 of 1		



Photo 1: Facing northwest at drum storage. (September 21, 2017)



Photo 2: Facing southwest at drum storage area (circled). Photo provided by NATC. (May 29, 2014)





Area Description							
Location Upslope from diesel transfer station and primary crusher building. Adjacent to and upslope of coarse ore stockpile.							
Water supply tanks situated on relatively flat pads constructed above the main mine area. Topography There is a short access road to the water supply tanks. Water supply tank #1 sits further upslope from water supply tank #2. Surrounded by forested area.							
Surface Drainage	North-northeast						
Background	Not previously identified around Water Tanks is	l in reports as an APEC unknown.	area. History or re	easoning of tailings deposition			
Historical Assessme	nt Information						
No previous assessment	information available.						
2017/2018 Environme	ental Site Assessmen	t Details					
Environmental Site Ass	essment Scope						
Utility Locate SOP follow	ed?			N/A			
EM 31 Geophysics Com	olete?			No			
Number of test pits advar	nced			0			
Number of boreholes adv	/anced			0			
Number of hand auger lo	cations advanced			0			
Number of tailings sampl	es collected for acid rock	drainage analysis		1 (2017)			
Number of tailings sampl	es submitted for acid rock		1 (2017)				
Number of soil samples of	collected for acid rock drai		1 (2017)				
Number of soil samples s	submitted for laboratory ch	nemical analysis		0			
Number of boreholes cor	npleted as groundwater m	nonitoring wells		0			
Number of historical grou	Indwater monitoring wells			0			
Number of groundwater	samples collected			0			
Number of sediment and	surface soil samples colle	ected		0			
Geophysics Findings				·			
N/A							
Soil Investigation and C	Conditions						
Maximum Depth of Investigation	Surface investigation or	nly. Hand dug holes up t	to 0.50 m				
General Stratigraphy							
Description	Depth from (mbg)	Depth to (mbg)		Observations			
Water Supply Tank #2: Tailings	0	0.5	Oxidized tailings red.	s, silt and fine sand, orange-			
Water Supply Tank #2: 0.5 - Mixed sand and gravel, fill material. Possibly native soil.							
Water Supply Tank #1 (laydown)00.30Mixed of sands and gravels, till and fill material, with intermixed oxidized tailings.							
Combustible Vapour Co	Combustible Vapour Concentrations (CVCs)						
N/A							
Groundwater Conditions							
Depth to Groundwater	N/A						

AEC 51: Tailings Deposited around Water Tanks



AEC 51:	Tailings	Deposited	around	Water	Tanks
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Free Product	N/A						
2017/2018 Environmen	tal Site Asse	ssment Results Sum	mary				
 Figure A51-1 shows AR 	D/ML sample lo	cations.					
 Table A51-1 summarizes acid-base accounting results (with sample descriptions). 							
General Site Observation	IS						
 Base data imagery show 	vs the extent of	tailings contamination (m	ajority shown in orange-red on figure).				
 Tailings, where observed red in colour from iron al 	d during the inv Iteration	estigation, are generally l	highly oxidized. They are silt to fine sand and orange-				
 Maiority of tailings conce 	entrated around	the foundation of Water	Supply Tank #2. Location of sample 17WT-OX2.				
 Water supply tank has ~ depth of tailings is 0.5 m 	/30 m diameter; lbg.	tailings noted between 1	-3 m from the base of the water tower; estimated				
 Tailings are intermixed v Tank #1. Location of sar 	with sands and grades and g	gravels on the laydown co 1.	onstruction pad 20 m to the north of Water Supply				
 Diffuse and trace to mine 	or quantities of	tailings intermixed with fil	I material on road between Supply Tank #1 and #2.				
 Diffuse tailings observed 	d on satellite ima	agery in forested area do	wnslope (north) of Supply Tank #2.				
 A cracked and damaged the base of Supply Tank 	I PVC pipe with (#1.	exposed foam insulation	and minor amount of scrap metal and debris around				
 Steep drainage to the no 	orth; directed to	wards AEC23/33.					
No additional work was	done in this are	a in 2018.					
Soil: Petroleum Hydrocai	rbons, Metals,	Other PCOC's, Acid Ro	ck Drainage				
N/A Tailings: Potroloum Hydr	ocarbons Oth	or PCOC's					
N/A							
Tailings: Acid Rock Drain	nage (see Geog	hemistry Report. Tetra Te	ech 2019a)				
Tailings: Metals		······································					
N/A – not tested during this	s program; histo	rical data on tailings mate	erial from other areas is available.				
Tailings: Metal Leaching							
N/A – not tested during this	s program; histo	rical data on tailings mate	erial from other areas is available.				
Groundwater: Petroleum	Hydrocarbons	, Metals/Routine Param	eters, Other PCOCs				
N/A							
Sediment: Petroleum Hyd	drocarbons, Me	etals, Other PCOCs					
N/A							
Surface Water: Petroleun	n Hydrocarbon	s, Metals/Nutrients, Oth	er PCOCs				
N/A Crainaiza Analysia							
Environmental Concerns							
Location in AEC Potential Source(s) Identified Parameters Assessed and Contaminant(s) of Contaminated Media Concern (COCs; bold & underline)							
Around foundation of							
and diffuse through soil	Tailings	Tailings; soil	Acid-rock drainage and metal leaching from tailings				
on roads/laydown	5	<i>5 /</i>	5 5 ·····9-				
adjacent to Water Tanks							

AEC 51: Tailings Deposited around Water Tanks

Discussion (Significance of the Results)

Historical data not available specifically for tailings around the Water Tanks, however historical data from other tailings
areas were considered and relied upon here.

Conclusion: for ARD/ML conclusions, see geochemistry report (Tetra Tech 2020e)

Attachments

Figure A51-1 - Tailings Disposal Area Acid Rock Drainage Results Photographs





Photo 1: Oxidized tailings around the lower water tower (WT2). Sample 17WT-OX2. (October 3, 2017)



Photo 2: Detailed view of tailings around lower water tower. Scrap metal and debris. Cemented fill material within and surrounding tailings, possible from water tower foundation. (October 3, 2017)





Photo 3: Oxidized tailings mixed in with soil material on construction pad adjacent to the upper water tower (WT1). Location of sample 17WT-0X1. (October 3, 2017)



Photo 4: Looking from sample station 17WT-OX1 towards the upper water tower. Cracked and broken PVC pipe with exposed foam insulation in the foreground. (October 3, 2017)





Photo 5: Sample 17WT-OX1 location. (October 3, 2017)





Area Description	Area Description								
Location	Beside Airport Road at	the Base of Tailings Pon	d 3 (TP3).						
Topography Steep decline to the northeast on the southwest side of the pond TP3 dam, and slight slope to the northeast on the road adjacent northeast of the pond.									
Surface Drainage	Northeast								
Background Stinky pond fed by natural springs and used to receive exfiltrated effluent from TP3. Historically it received grated effluent from the water treatment plant (no longer operating). Pond drains beneath Airport Road and flows through a culvert and ~20 m channel to Flat River.									
Historical Assessme	Historical Assessment Information								
Surface water sample po	int S4-20 sampled annua	Ily in Mine surface water	monitoring progra	am.					
2017/2018 Environme	ental Site Assessmen	t Details							
Environmental Site Ass	essment Scope								
Utility Locate SOP follow	ed?			N/A					
EM 31 Geophysics Comp	olete?			No					
Number of test pits advar	nced			0					
Number of boreholes adv	vanced			0					
Number of hand auger lo	cations advanced			0					
Number of soil samples s	Number of soil samples submitted for laboratory chemical analysis 0								
Number of boreholes cor	Number of boreholes completed as groundwater monitoring wells 0								
Number of historical grou	indwater monitoring wells	i		0					
Number of groundwater s	samples collected			N/A					
Number of sediment and	surface water samples c	ollected		1 (Surface Water) (2017)					
Geophysics (EM 31 App	parent Terrain Conducti	vity) Findings							
N/A									
Soil Investigation and C	Conditions								
Maximum Depth of Investigation	N/A								
General Stratigraphy									
Description	Depth from (mbg)	Depth to (mbg)	0	bservations					
N/A	N/A	N/A		N/A					
Combustible Vapour Co	oncentrations (CVC)								
N/A									
Groundwater Conditions									
Depth to Groundwater N/A									
Free Product N/A									
2017/2018 Environmental Site Assessment Results Summary									
 Figure A52-1 shows surface water sampling locations. Table A52-1 summarizes surface water lab results relative to guidelines. 									
 General Site Observations Strong sulphur odour from Stinky Pond. Water is clear with no sheen. 									

AEC 52: Stinky Pond



AEC 52: Stinky Pond

 No additional work was done in this area in 2018 										
Soil: Petroleum Hydrocarbons (PHCs, PAHs)										
N/A										
Soil: Metals	Soil: Metals									
N/A	N/A									
Soil: Other PCOCs	Soil: Other PCOCs									
N/A	N/A									
Groundwater: Petrol	eum Hydrocarbons	(PHCs and PAHs)								
NA	NA									
Groundwater: Metals/Routine Parameters										
NA										
Groundwater: Other PCOCs (Nutrients)										
NA	NA									
Sediment: Petroleum Hydrocarbons										
N/A										
Sediment: Metals										
N/A										
Sediment: Other PCOCs										
N/A										
Surface Water: Petro	leum Hydrocarbon	s (PHCs and PAHs)								
 Laboratory results I 	ess than detection li	mits and guidelines.								
Surface Water: Metals/Nutrients										
 Laboratory results less than guidelines with exception of: 										
 Dissolved fluoride at S4-20. 										
Surface Water: Other PCOCs (cyanide, nutrients, BOD, glycols)										
 Laboratory results less than guidelines. 										
Environmental Concerns										
Location in AEC	Potential Source(s)	Identified Contaminated Media	Parameters Assessed and Contaminant(s) of Concern (COCs; bold & underline)							
In the channel	Metal oxidation,		Surface Water: Metals, petroleum hydrocarbons							
below the discharge	effluent, and	Surface Water	(PHCs), glycols, polycyclic aromatic hydrocarbons							
culvert.	TP3		nutrients, biological oxygen demand (BOD)							
Discussion (Significance of the Results)										
Surface Water										
 Surface water discharging from Stinky Pond not significantly impacted by TP3 										
 PHCs, PAHs, Cvanide, nutrients, BOD, metals and glycols met the guidelines and are no longer considered PCOCs 										
at AEC 52.										
Attachments										
Figure A52-1 – Groundwater and Surface Water Results										
Table A52-1 – Surface Water Analytical Results										
Photographs										





Table A52-1: Surface Water Analytical Results

	Unit	RDL	CCME - AW (Freshwater) ¹	Environmental Quality Guidelines for Alberta Surface	Flat River Water Quality Objectives ³	A52
Parameter						S4-20
				Waters ²		10/5/2017
Field Parameters						
Field Temperature	°C	-	NG	NG	NG	4.0
Field pH	pH Units	-	6.5-9	6.5-9	6.5-9	7.95
Field Conductivity	μS/cm	-	NG	NG	NG	936
Cyanide						
Cyanide (SAD)	mg/L	0.002	NG	NG	NG	<0.002
Cyanide (WAD)	mg/L	0.002	NG	NG	NG	<0.002
Routine / Salinity		0.04	0.5.0	0.5.0	0.5.0	
pH Electrical Conductivity (EC)		0.01	0.5-9	0.5-9	0.5-9	8.01
Electrical Conductivity (EC)	µS/cm	1	NG	NG	NG	960
Total Suspended Solids (TSS)	mg/L	Z	NG	NG	0	<u><2</u>
	mg/L	0.1	NG	NG	NG	
	mg/L	0.1	NG	NG	NG	
	mg/L	1	NG	NG	NG	- 181
Bromido	mg/L	0.05	NG	NG	NG	<0.05
Calcium Carbonato	mg/L	0.05	NG	NG	NG	<u> </u>
	mg/L	0.05	120	120	NG	16.2
Fluoride	ma/l	0.05	0.12	NC		0.49
	mg/L	0.02	0.12	200 420	NG	0.45
Nutrients	ing/∟	0.5		303 - 429	טאו	200
Ammonia	ma/l	0.01	1.04	1.04	1 27	
Nitrate (as NO3-N)	ma/l	0.01	1.04	1.04 2	3	- 0.062
Nitrite (as $NO2-N$)	mg/L	0.005	0.06		0.06	<0.002
Nitrogen (Total)	ma/l	0.000	NC	0.00 - 0.00 NC	NC	-0.000
	IIIg/L	0.05	I NG	ING ING	NG	
	ma/l	Λ	NC	NC	NC	<i>1</i>
	IIIg/L	4	ING	ING ING	NG	
	mg/l	0.005	0.1.6	0.4.6	0.2	0.000
Antimony	mg/L	0.005		0.1	0.3	<0.009
Anumony	mg/L	0.0005	NG 0.005	0.005	NG 0.005	<0.0005
Arsenic	mg/L	0.0001	0.005	0.005	0.005	0.0005
Danum	mg/L	0.0005	NG	NG	NG	<0.0200
Beron soluble	mg/L	0.00005	1 5	1.5	1.5	0.00005
Codmium	mg/L	0.005	1.5		1.0	0.317
Cadillull	mg/L	0.00001	0.001	0.00026 - 0.077	0.00035	<0.0005
Coholt	mg/L	0.0005	NG	0.001	0.001	<0.0005
Copper	mg/L	0.0005		0.0025	NG	0.00037
	mg/L	0.0005	0.0028 - 0.004	0.020 - 0.062	0.0042	<0.0005
	mg/L	0.01	0.0010 0.0077	0.0	0.005	<0.0005
	mg/L	0.00005	0.0042 - 0.007	0.0042 - 0.007	0.005	0.00005
Magnasium	mg/L	0.0005	NG	NG	NG	17.2
Magnesium	mg/L	0.05	NG	NG	NG	0.031
Marguny	mg/L	0.001	0.000026	0.000005	0.00026	<0.0001
Melvedonum	mg/L	0.0001	0.000020	0.000005	0.000020	0.00001
Nickel	mg/L	0.0001	0.075	0.570 1.527	0.075	0.0007
Phosphorus	mg/L	0.0005	0.001 0.010 8	NG	NG	0.0000
Potassium	ma/l	0.000	NG	NG	NG	- 3 11
Selenium	ma/l	0.005	0.001	0.001	0.001	<0.005
Silver	mg/L	0.0000	0.001	0.001	NG	<0.0000
Sodium	ma/l	0.1	NG	NG	NG	124
Thallium	mg/L	0.0002	0.0008	0.0008	0.0008	0 00004
Titanium	ma/l	0.001	NG	NG	NG	<0.001
Uranium	ma/l	0 00001	0.015	0.015	0.015	0 00764
Vanadium	mg/L	0.001	NG	NG	NG	<0.001
Zinc	ma/l	0.005	0.03	0.03	0.03	<0.001
Hydrocarbons	ing/E	0.000	0.00	0.00	0.00	-0.000
Benzene	ma/l	0.0005	0.37	0.04	NG	<0 0005
Volatile Hydrocarbons (VH6-10)	mg/L	0.0000	NG	NG	NG	<0.0000
Toluene	ma/l	0 0005	0.002	0 0005	NG	<0 0005
Ethylbenzene	ma/l	0 0005	0.09	0.09	NG	<0 0005
Xvlene (m)	ma/l	0.0005	NG	NG	NG	<0.0005
Xylene (n)	mg/L	0.0005	NG	NG	NG	<0.0005
Xvlenes Total	ma/l	0.001	NG	0.03	NG	<0.001
E1 (C6-C10)	mg/L	0.1	NG	0.00	NG	<0.001
	ma/l	0.1	NG	0.15	NG	<0.1
F2 (C10-C16)	mg/L	0.1	NG	0.13	NG	<0.1
TEH: (C16-C34)	ma/l	0.1	NC	NC		-0.1
E4: (C34 C50)	mg/L	0.1	NG	NG	NG	<0.1
//PHs	ma/l	0.1	NC	NC		-0.1
Givenis	ing/∟	0.1				1.0
Diethylene glycol	ma/l	5		150	NC	
	ma/l	10	102	100		~10
	mg/L	10	500	192 500		~10
Totraethylene Gycol	ma/l	10	500 NC			~10
Triethylene Clycol	ma/l	10		350		<10
	, mg/⊑	10	1 110		110	-10



	Unit	RDL	CCME - AW (Freshwater) ¹	Environmental Quality Guidelines for Alberta Surface Waters ²	Flat River Water Quality Objectives ³	A52
Parameter						S4-20
						10/5/2017
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.00002	0.0058	0.0058	NG	<0.00002
Acenaphthylene	mg/L	0.00002	NG	NG	NG	<0.00002
Acridine	mg/L	0.00005	0.0044	0.0044	NG	<0.00005
Anthracene	mg/L	0.00001	0.000012	0.000012	NG	<0.00001
Benz(a)anthracene	mg/L	0.00001	0.000018	0.000018	NG	<0.00001
Benzo(a) pyrene	mg/L	0.00001	0.000015	0.000015	NG	<0.00001
Benzo(b)fluoranthene	mg/L	0.00001	NG	NG	NG	<0.00001
Benzo(b+j)fluoranthene	mg/L	0.00001	NG	NG	NG	<0.00001
Benzo(g,h,i)perylene	mg/L	0.00001	NG	NG	NG	<0.00001
Benzo(k)fluoranthene	mg/L	0.00001	NG	NG	NG	<0.00001
Chrysene	mg/L	0.00001	NG	NG	NG	<0.00001
Dibenz(a,h)anthracene	mg/L	0.00001	NG	NG	NG	<0.00001
Fluoranthene	mg/L	0.00002	0.00004	0.00004	NG	<0.00002
Fluorene	mg/L	0.00002	0.003	0.003	NG	<0.00002
Indeno(1,2,3-c,d)pyrene	mg/L	0.00001	NG	NG	NG	<0.00001
Naphthalene	mg/L	0.00005	0.0011	0.001	NG	<0.00005
Phenanthrene	mg/L	0.00004	0.0004	0.0004	NG	<0.00004
Pyrene	mg/L	0.00002	0.000025	0.000025	NG	<0.00002
Quinoline	mg/L	0.0001	0.0034	0.0034	NG	<0.0001
Benzo(j)fluoranthene	ug/L	0.01	NG	NG	NG	<0.01
Sample ID						
Lab_Report_Number						

Table A52-1: Surface Water Analytical Results

Notes:

¹ Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines (EQG), for the protection of freshwater aquatic life.

² Environmental Quality Guidelines for Alberta Surface Waters, July 2014 for the protection of freshwater aquatic life - Guidelines only apply in the absence of CCME EQG.

³ Flat River Water Quality Objectives. Mackenzie Valley Land and Water Board, 2017.

⁴ Guideline is dependent upon the pH value and temperature. The most stringent concentration has been applied.

⁵ Guideline is dependant upon the chloride concentration.

⁶ Guideline is dependant upon the pH value.

⁷ Guideline is based on the Hardness value.

⁸ Guideline shown is based on the typical range of total phosphorous concentrations of a oligatrophic water body.

RDL - Reported Detection Limit

NG - No guideline

mg/L - milligrams per litre.

BOLD Black and Shaded - Concentration exceeds the CCME EWQ for the protection of freshwater aquatic life.

BOLD Red and Shaded - Concentration exceeds the Environmental Quality Guidelines for Alberta Surface Waters for the protection of freshwater aquatic life in the absence of CCME EQG.

BOLD Black, Underline, and Shaded - Concentration exceeds the Flat River Water Quality Objectives

Italic - Detection limit greater than minimum referenced guideline value

Blank - Not analyzed





Photo 1: Facing west towards TP3. Stinky Pond visible in centre of photo. Photo provided by NATC. (May 29, 2014)

