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Memo

To: Chris Hanks Date: December 31, 2012

Company: Hope Bay Mining Limited From: lozsef Miskolczi

Tom Sharp

Copy to: Maritz Rykaart (SRK) Project #: 1CH008.069

Subject: Hope Bay Project Closure and Reclamation Cost Estimate - 2012 Update

NWB Licenses 2AM-DOH0713, 2BB-BOS1217, and 2BE-HOP1222

Hope Bay is an advanced exploration site, which includes the partially constructed Doris North mine, all of which is the property of Hope Bay Mining Limited (HBML). The site is located in Nunavut, approximately 120 km southwest of Cambridge Bay. Exploration and early mine construction work was concentrated in several distinct areas including: Doris North, Boston, Windy, and Patch Lake respectively. In 2012 the site was placed under care and maintenance, awaiting closure and reclamation.

HBML was required to submit closure and reclamation plans including estimated closure costs for each of the work areas. SRK Consulting (Canada) Inc. was retained by HBML to update the closure liability estimates to reflect the standing at the end of 2012 calendar year. The closure and reclamation plans were previously submitted to the Nunavut Water Board (NWB) in compliance with the following licenses: 2AM-DOH0713 (NWB 2007) for the Doris North area, 2BB-BOS1217 (NWB 2012a) for the Boston area, and 2BE-HOP1222 (NWB 2012b) for the Windy/Patch Lake area.

1 Introduction

The cost associated with the implementation of the Closure and Reclamation Plans for the Hope Bay site (SRK 2012a, 2012b, 2012c) were developed earlier this year using a spreadsheet model developed by SRK. During the process of the annual update of the closure liability cost estimates (required under the US regulations) some unit rates and quantities were modified.

This memo presents a summary of the updated costs.

2 Hope Bay Liability Cost Estimate

The estimated cost of closure and reclamation of the Hope Bay project was calculated by SRK in the first half of 2012. The overall cost was divided into three individual models, each dealing with one specific area including the Boston, the Doris North and the Windy/Patch sites respectively.

The updated Closure and Reclamation cost is higher than the previously submitted estimates, mainly because the owner's costs and some of the unit rates were updated, while the mobilization-demobilization costs were refined to better suit the specifics of this project. An important cost component not previously accounted for is the water management for the Doris North area.

Where required, task costs were reduced or eliminated to reflect progressive reclamation work done over the 2012 season.

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3 Cost Summaries

Tables 1 through 3 present the cost summaries for the Boston, Doris North, and Windy/Patch Lake areas respectively. A complete listing of all sheets for the individual cost estimates is provided in the appendices.

Table 1: Cost Summary for the Boston Area

Work task	Cost (rounded to the nearest thousand)
Direct Cost Items	
1. Transportation Infrastructure (Roads, Airstrips, Docks)	\$66,000
2. Drill Sites/Drill Hole Abandonment	\$184,000
3. Portals/Adits	\$21,000
4. Non-Process Ponds & Reservoirs	\$10,000
5. Dumps, Stockpiles, Landfills	\$416,000
6. Facilities Demolition	\$683,000
7. Off-site Shipping for Disposal	\$390,000
8. Off-Site Disposal Fees	\$16,000
Total Direct Costs	\$1,786,000
9. Contingency	\$274,000
10. Mobilization & Demobilization	\$2,937,000
11. General and Administration Costs	\$438,000
12. Field Support	\$203,000
13. Engineering and Consultants Services	\$150,000
14. Post-closure Monitoring	\$200,000
Total Indirect Costs	\$4,202,000
Total Closure Cost	\$5,988,000

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Table 2: Cost Summary for the Doris North Area

Work task	Cost (rounded to the nearest thousand)
Direct Cost Items	
1. Transportation Infrastructure (Roads, Airstrips, Docks)	\$493,000
2. Borrow Areas	\$129,000
3. Portals/Adits	\$52,000
4. Non-Process Ponds & Reservoirs	\$63,000
5. Water Management	\$1,179,000
6. Dumps, Stockpiles, Landfills	\$720,000
7. Tailings Storage Facility (TSF)	\$485,000
8. Drainage / Diversion Channels	\$22,000
9. Facilities Demolition	\$1,830,000
10. Off-site Shipping for Disposal	\$3,998,000
11. Off-Site Disposal Fees	\$89,000
Total Direct Costs	\$9,060,000
12. Mobilization & Demobilization	\$712,000
13. Engineering and Consultants Services	\$282,000
14. General and Administration Costs	\$2,082,000
15. Contingency	\$754,000
16. Post-closure Monitoring	\$200,000
Total Indirect Costs	\$4,030,000
Total Closure Cost	\$13,090,000

Table 3: Cost Summary for the Windy and Patch Lake Areas

Work task	Patch Lake	Windy
Direct Cost Items	Cost (rounded	to nearest \$ 1,000)
Transportation Infrastructure (Roads, Airstrips, Docks)	\$3,000	\$3,000
2. Drill Sites/Drill Hole Abandonment	\$0	\$22,000
3. Drainage / Diversion Channels	\$0	\$5,000
4. Facilities Demolition	\$104,000	\$314,000
5. Off-site Shipping for Disposal	\$261,000	\$2,066,000
6. Off-Site Disposal Fees	\$26,000	\$297,000
Total Direct Costs	\$394,000	\$2,707,000
7. Mobilization & Demobilization	\$947,000	\$855,000
8. Engineering and Consultants Services	\$119,000	\$96,000
9. General and Administration Costs	\$6,000	\$16,000
10. Contingency	\$68,000	\$33,000
11. Post-closure Monitoring	\$200,000	\$200,000
Total Indirect Costs	\$1,340,000	\$1,200,000
Closure Cost - Subtotal	\$1,734,000	\$3,907,000
Closure Cost - Total	\$5,6	641,000

4 References

NWB 2007. Nunavut Water Board Water Licence No. 2AM-DOH0713. Granted to Hope Bay Mining Ltd. September 19, 2007.

NWB 2012a. Nunavut Water Board Water Licence No. 2BB-BOS1217. Granted to Hope Bay Mining Ltd. August 2, 2012.

NWB 2012b. Nunavut Water Board Water Licence No. 2BE-HOP1222. Granted to Hope Bay Mining Ltd. June 30, 2012.

SRK 2012a. SRK Consulting (Canada) Inc. Hope Bay Project Boston Camp Revised Interim Closure Plan. Report prepared for Hope Bay Mining Limited. SRK Project # 1CH008.065. June 2012

SRK 2012b. SRK Consulting (Canada) Inc. Hope Bay Project Windy Camp and Patch Lake Facility Final Reclamation Plan. Report prepared for Hope Bay Mining Limited. SRK Project # 1CH008.065. June 2012

SRK 2012c. SRK Consulting (Canada) Inc. Doris North Closure and Reclamation Plan. Report prepared for Hope Bay Mining Limited. SRK Project # 1CH008.065. August 2012

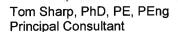
Regards

SRK Consulting (Canada) Inc.

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lozsef Miskolczi, MASc, EIT Consultant

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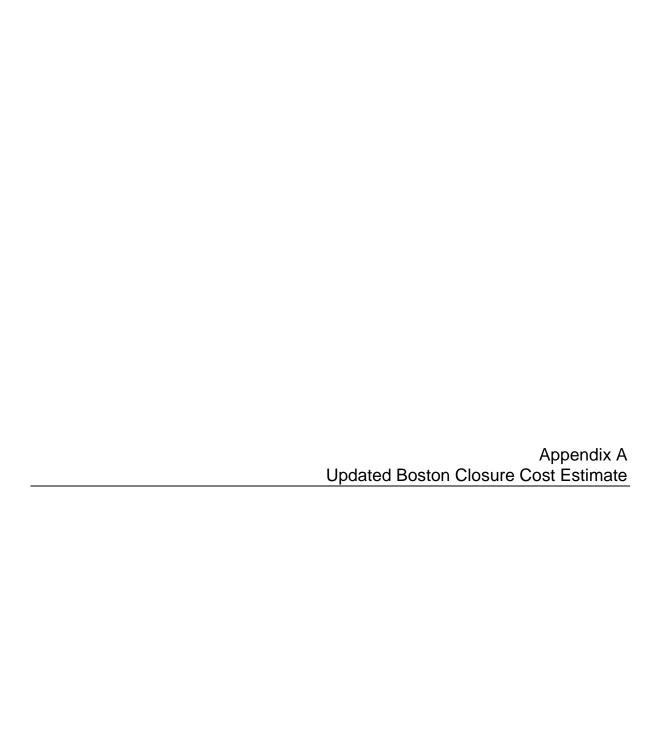
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Boston Closure Cost Estimate

Work task	Cost (rour	ided to the nearest
WOIN CUSK	By task	By Facility
Direct Cost Items		
Transportation infrastructure (roads, airstrips, docks)		\$66,000
Helipads	\$5,000	
Road to Aimaokatalok Lake		
Road to Almackatalok Eake		
Airstrip		
Core Storage Road		
Drill Road		
Permafrost Remediation and Revegetation		
Drill Sites/Drill Hole Abandonment	· ,	\$184,000
Drill Sites/Drill Hole Abandonment	\$184,000	
3. Portals/Adits		\$21,000
Portal/Decline	\$7,000	
Vent Raise	\$14,000	
4. Non-Process Ponds & Reservoirs		\$10,000
Settling Pond #1	\$4,000	
Settling Pond #2	\$3,000	
Diamond Drill Cuttings Settling Pond	\$3,000	
5. Dumps , Stockpiles, Landfills		\$416,000
Ore Stockpiles		
Contaminated Soil Implementation Plan	\$41,000	
6. Facilities Demolition		\$683,000
Accommodation Complex/Buildings		
Maintenance Shop Complex		
Crusher Enclosure	. ,	
Water Treatment Facilities	\$57,000	
Incinerator Mobile Equipment		
Other Structures		
Primary Tank Farm	. ,	
Power Plant Fuel Containment		
Jet Fuel Containment System	. ,	
Soil Treatment Facility		
Camp Complex Foundation Pad		
7. Off-site Shipping for Disposal	\$390,000	
8. Off-Site Disposal Fees	\$16,000	\$16,000
Total Direct Costs		\$1,786,000
9. Contingency	\$274,000	\$274,000
10. Mobilization & Demobilization	\$2,937,000	\$2,937,000
11. General and Administration costs	\$438,000	\$438,000
12. Field Support	\$203,000	\$203,000
13. Engineering and Consultants Services	\$150,000	\$150,000
14. Post-closure Monitoring	\$200,000	
Total Indirect Costs		\$4,202,000
Total Closure Cost		\$5,988,000

Table 2. Cost Itemized by Task

Work Area		Tack	Sub-	Activity	Task	Quantity Unit	Cost	Unit Cost	Activity	Subtotals	Source / Comments
Code DIRECT COST Camp Structu	rs		task	,	,	1	Code		Total		
Accommodati		omplex/E	Buildin	ngs					;	89,416	
B01 B01	1	1	1 2	Portable Trailers	Decommission (electrical, mechanical) Prep Trailers for movement (remove boards/piping, etc.).	1 ls 12 ea	C.1.05 S C.1.08 S		\$ 569 \$ 8,917		
B01 B01	1	1 2	3	Recreation Tent	Haul trailers to Doris North for re-use. Remove heating stove	12 ea 1 ea	C.4.06 S	3,342.69	\$ 40,112		
B01 B01	1	2	2		Demolish Collect Debris	9 m ³ 23 m ²	C.3.05 S	10.61	\$ 94		
B01	1	2	4		Load debris into containers for transport (to Roberts Bay)	12 m ³	C.4.01	8.16	\$ 94		
B01 B01	1	2	5 1	Site Office	Haul debris to Roberts Bay Demolish	12 m ³ 50 m ³	C.4.04 S C.3.05 S	10.61	\$ 534		
B01 B01	1	3	2		Collect Debris Load debris into containers for transport (to Roberts Bay)	62 m² 101 m³	C.3.10 S		\$ 8 \$ 821		
B01 B01	1	3 4	4 1	Geotech Tent	Haul debris to Roberts Bay Remove heating stove	101 m ³ 1 ls	C.4.04 S				
B01 B01	1	4	2		Demolish Collect Debris	13 m ³ 33 m ²	C.3.05 S		\$ 135 \$ 4		
B01 B01	1	4	4		Load debris into containers for transport (to Roberts Bay) Haul debris to Roberts Bay	17 m ³	C.4.01 S	8.16	\$ 135		
B01 B01	1	5	1 2	Core Shack and Core Splitter	Remove heating stoves Demolish	2 ls 102 m ³	C.1.01 S	47.68			
B01 B01	1	5	3		Collect Debris	115 m ² 198 m ³	C.3.10 \$	0.13	\$ 15		
B01	1	5	5	Martin Olaffan	Load debris into containers for transport (to Roberts Bay) Haul debris to Roberts Bay	198 m ³	C.4.04	75.78	\$ 14,983		
B01 B01	1	6	3	Muster Station	Remove heating stoves Demolish	1 ls 44 m ³	C.1.01 \$	10.61			
B01 B01	1	6 6	4 5		Collect Debris Load debris into containers for transport (to Roberts Bay)	49 m ² 66 m ³	C.3.10 S C.4.01 S	8.16	\$ 542		
B01 B01	1	6 7	6 1	Communication Equipment	Haul debris to Roberts Bay Dismantle and package Satellite Dish and communication equipment	66 m ³ 1 ls	C.4.04 S C.1.07 S	313.10	\$ 313		
B01 B01	1	8 8	1	Generators	Decommission generator Transport Trailer to Doris Camp for re-use/salvage	1 Is 1 Is	C.1.06 S	3,342.69			
B01 B01	1	9 9	1	Hazardous Waste	Collect and place in suitable containers Haul to Doris North	0.48 m ³ 0 m ³	C.2.01 S				
Maintenance \$ B01	Shop (Complex 1	x 1	Heating System	Relocate tanks to tank farm for draining/cleaning	2 ea	C.1.01 \$	47.68	\$ 95	23,906	
B01	2	2	1	Maintenance Shop	Decommission electrical, mechanical (including connections to generate house & transformer)	or 1 ls	C.1.05	568.88	\$ 569		
B01 B01	2	2	3 4		Demolish (steel modular structure) Demolish wood structures (survival, electrical and compressor sheds)	17 m ³ 48 m ³	C.3.05 S				
B01 B01	2	2	5 6		Collect Debris Load debris into containers for transport (to Roberts Bay)	306 m ³ 98 m ³	C.3.10 S	0.13	\$ 39		
B01 B01	2 2	2 3	7	Powerhouse	Haul debris to Roberts Bay	98 m ³ 1 ls	C.4.04 S C.1.05 S	75.78			
B01	2	3	2	Powerhouse	Decommission (electrical) Demolish Collect Pobric	49 m ³	C.3.05	10.61	\$ 518		
B01 B01	2	3	3 4		Collect Debris Load debris into containers for transport (to Roberts Bay)	61 m ² 98 m ³	C.3.10 \$	8.16	\$ 797		
B01 B01	2	3	5	Transformer building	Haul debris to Roberts Bay Decommission (electrical)	98 m ³ 1 ls	C.4.04 S	568.88	\$ 569		
B01 B01	2	4 4	2		Demolish (hazardous material removed above) Collect Debris	33 m ³ 41 m ²	C.3.05 S	0.13	\$ 5		
B01 B01	2	4 4	4 5		Load debris into containers for transport (to Roberts Bay) Haul debris to Roberts Bay	49 m³ 49 m³	C.4.01 S				
Crusher Enclo		1	1	Equipment	Dismantle hopper/crusher parts for transport	1 ls	C.3.08		(5,583	
B01 B01	3	1 2	2	Crusher building	Load equipment into containers for transport (to Roberts Bay) Demolish (tent/steel enclosure)	20 m ³ 37 m ³	C.4.01 S	8.16	\$ 161		
B01	3	2 2	2		Collect Debris	467 m ² 55 m ³	C.3.10 \$	0.13	\$ 60		
B01	3	2	4		Load debris into containers for transport (to Roberts Bay) Haul debris to Roberts Bay	55 m ³	C.4.01 S	8.16 75.78	\$ 4,171	50.00-	
	4	1	1	Water Supply Pipelines	Cut pipelines into manageable pieces	607 m	C.3.03		\$ 1,190	56,693	
B01 B01	4	1	3		Load debris into containers for transport (to Roberts Bay) Haul debris to Roberts Bay	182 m ³ 182 m ³	C.4.01 \$	75.78	\$ 13,808		
B01 B01	4	2	1	Sewage water pipelines	Flush sewage water pipelines Cut pipelines into manageable pieces	1 ls 489 m	C.2.06 S C.3.03 S	1.96	\$ 504 \$ 958		
B01 B01	4	2	3 4		Load debris into containers for transport (to Roberts Bay) Haul debris to Roberts Bay	147 m³ 147 m³	C.4.01 S				
B01 B01	4	3 4	1	Camp Water Intake Old Sewage Treatment (RBC)	Collect and dismantle intake system Flush and remove sewage plumbing	1 Is 1 Is	C.1.03 S C.2.06 S		\$ 1,064 \$ 504		
B01 B01	4	4	2		Load sewage sludge/waste water in 55 gallon drums Demolish buildings	1 m ³ 37 m ³	C.2.06 S		\$ 504 \$ 392		
B01 B01	4	4	4		Collect Debris Load debris into containers for transport (to Roberts Bay)	35 m ² 55 m ³	C.3.10 S	0.13	\$ 4		
B01	4	4	6		Haul debris to Roberts Bay	55 m ³	C.4.04	75.78	\$ 4,198		
B01 B01 B01	4 4 4	4 5	7 1 2	New Sewage Treatment System	Regrade treatment foundation pad to ensure positive drainage Flush and remove sewage plumbing Load sewage sludge/waste water in 55 gallon drums	460 m ² 1 ls 1 m ³	C.5.05 \$ C.2.06 \$	504.33			
B01 B01	4	5 5	3		Load sewage sludge/waste water in 55 gallon drums Decommission (electrical)	1 m ³ 1 ls	C.1.05	568.88	\$ 569		
B01 B01	4	5 5	4 5		Demolish buildings/tanks Collect Debris	122 m ³ 30 m ²	C.3.05 S	0.13	\$ 4		
B01 B01	4	5 5	6 7		Load debris into containers for transport (to Roberts Bay) Haul debris to Roberts Bay	183 m³ 183 m³	C.4.01 S				
Helipads B01	5	1	1	Demolish	Demolish pads	32 m ³	C.3.05	10.61	\$ 337	4,692	
B01	5	1 1	2		Collect debris Load debris into containers for transport (to Roberts Bay)	21 m ² 48 m ³	C.3.10 S	0.13	\$ 3		
	5	1 2	4	Regrade	Haul debris to Roberts Bay Regrade area to ensure positive drainage	48 m ³	C.4.04 S	75.78	\$ 3,608		
Incinerator B01	8	1	1	Disassemble	Regrade area to ensure positive drainage Collect ashes and place in containers	0.01 m ³	C.2.07		(1,486	
B01	8	1 1	2	0000011010	Collect asnes and place in containers Dismantle (welding crew) Load into containers for transport (to Roberts Bay)	0.01 m ³ 1 ls 7 m ³	C.1.04 S C.4.01 S	913.95	\$ 914		
B01	8	1	4		Haul debris to Roberts Bay	7 m ³	C.4.04 S			0.500	
Mobile Equipr B01 B01	ment 9 9	1	1 2	Decontaminate	Wash/decontaminate misc. equipment in lined facility Operate oil/water separator (onty = # of tanks/equip, treated)	5 ea 5 ea	C.3.08 S			6,583	
B01	9	2	1 2	Disassemble	Operate oil/water separator (qnty = # of tanks/equip. treated) Dismantle (welding crew) Load into containers for transport (to Roberts Ray)	5 ea	C.3.08	352.28	\$ 1,761		
B01	9	2	3		Load into containers for transport (to Roberts Bay) Haul debris to Roberts Bay	34 m ³ 34 m ³	C.4.01 S C.4.04 S		\$ 2,558		
	10	1	1	Demolish	Demolish buildings and other structures	44 m³	C.3.05			34,121	
B01	10 10	1	3		Dismantle radio towers Collect debris	2 each 80 m ²	C.3.11 S	0.13	\$ 10		
B01	10	1	4 5		Load debris into containers for transport (to Roberts Bay) Haul debris to Roberts Bay	66 m ³	C.4.01 \$ C.4.04 \$				
Subtotal Direct	Struct	tures	ıp Stru	uctures						222,481	
Primary Tank B02	1	1	1	Above ground storage tanks	Drain fuel and consolidate in one tank	8 ea	C.2.03		\$ 1,823	425,496	
B02 B02	1	1	3		Decommission fuel tanks Pressure wash tanks	8 ea 8 ea	C.1.02 S C.2.04 S	249.84	\$ 1,999		
B02 B02	1	1	4 5		Operate oil/water separator Demolish and cut tanks into manageable pieces	8 ea 8 ea	C.2.08 S	50,000.00			
B02 B02	1	1	6 7		Haul residual fuel on skid to Doris Camp Load into containers for transport (to Roberts Bay)	1 ls 25 m ³	C.4.06 S	8.16	\$ 202		
B02 B02	1	1 2	8	Heating Systems Tanks	Haul debris to Roberts Bay Drain of fuel (consolidate in one tank) and pressure wash tank	25 m ³ 7 ea	C.4.04 S	18.99			
B02 B02	1	2	3		Operate oil/water separator (qnty = # of tanks/equip. treated) Load into containers for transport (to Roberts Bay)	7 ea 5 m ³	C.2.08 S	8.16	\$ 43		
B02 B02	1	2	4 1	Secondary containment system	Haul debris to Roberts Bay Excavate liner cover material and consolidate on ore pile	5 m ³ 406 m ³	C.4.04 S C.5.02 S				
B02 B02	1 1	3	2		Load HC contaminated bedding in containers for transport Cut liner into manageable pieces and clean	- m³ 825 m²	C.4.01 S	8.16	\$ -		
B02	1	3	4 5		Load liner into container for transport (to Roberts Bay) Haul debris to Roberts Bay	12 m ³	C.4.01 S	8.16	\$ 101		
	1	3	6		Regrade area to ensure positive drainage	810 m ²	C.5.05		\$ 1,926	2,831	
B02		ontainm 1 1	1 2	Green Storage tanks (2)	Drain of fuel and consolidate in one tank Pressure wash tanks	2 ea 2 ea	C.2.03 S C.2.04 S		\$ 456	2,031	
B02	2 2	1	3		Operate oil/water separator Load into containers for transport (to Roberts Bay)	2 ea 2 ea 2 ea	C.2.04 S C.2.08 S C.4.07 S	45.47	\$ 91		
	2	1 2	5	Secondary containment system	Haul debris to Roberts Bay Excavate liner cover material and consolidate on ore pile	2 ea 60 m³	C.4.04 S C.5.02 S	75.78	\$ 152		
B02	2	2	2	,	Load HC contaminated bedding in containers for transport	- m ³	C.4.01 \$ C.3.02 \$	8.16	\$ -		
B02	2	2	4		Cut liner into manageable pieces and clean Load liner into container for transport (to Roberts Bay)	0.2 m ³	C.4.01	8.16	\$ 1		
B02	2	2	5 6		Haul debris to Roberts Bay Regrade area to ensure positive drainage	0 m ³ 125 m ²	C.4.04 S C.5.05 S		\$ 297		
	3	1	m 1	Tidy Tanks/Jet fuel Drums	Remove to Doris Camp for reuse	1 ls	C.4.06		\$ 3,343	3,571	
B02	3	2	1 2	Portable Pollution Control Berm	Dismantle and prep for shipping Haul to Doris Camp for reuse (include in jet fuel trip)	1 ls 1 ls	C.3.04 S	-	\$ -		
B02 Settling Pond		2	3	Damana II.	Haul debris to Roberts Bay	1 ls	C.4.04 S		(3,548	
B02	4 4	1 1	1 2	Remove liner	Excavate settled material, temp. stockpile Remove liner and cut into manageable pieces	79 m³ 400 m²	C.5.04 S C.3.02 S	2.14	\$ 854		
B02 B02	4	1 1	3 4		Load liner into container for transport (to Roberts Bay) Haul debris to Roberts Bay	6 m ³ 6 m ³	C.4.01 S				
B02		2 2	1 2	Backfill pond	Backfill pond with settled solids and drill cuttings Regrade over pond with pad/berm materials	79 m ³ 750 m ²	C.5.04 S	2.56	\$ 203		Cutting placement included elsewhere
Settling Pond	#2 (in			Remove Solid Waste	Load into containers for transport (to Roberts Bay)	- m ³	C.4.01 S		(1,793	
B02	5	2	1	Backfill pond	Backfill pond with settled solids and drill cuttings	59 m ³	C.5.04	2.56	\$ 152		
B02	ນ	2	2		Regrade over pond with pad/berm materials	690 m²	C.5.05	3 2.38	\$ 1,641		L

December 2012

Work Area Code Item Task Sub-	Activity	Task	Quantity Unit	Cost Code	Unit Cost	Activity Total	Subtotals	Source / Comments
oil Treatment Facility B02 7 1 1	Current landfarmed soils	Test existing soils in landfarm	10 ea	C.6.01	93.48	\$ 935	\$ 16,745	
B02 7 1 2		Use passing soils for reclamation	90 m ³	- :	- :	\$ -		Costed where used
B02 7 1 3 B02 7 2 1	Soil in drums	Load failing soils into containers for transport Empty Drums	90 m ³ 100 ea	C.4.01 S				
B02 7 2 2		Wash drums (in tank farm)	100 ea	C.2.05	16.35	\$ 1,635		
B02 7 2 3 B02 7 2 4		Crush drums Load into containers for transport (to Roberts Bay)	100 ea 6 m³	C.3.01 S				
B02 7 2 4 B02 7 2 5		Haul debris to Roberts Bay	6 m ³	C.4.01				
B02 7 3 1	Remove liner	Remove liner and cut into manageable pieces	368 m ²	C.3.02	2.14	\$ 786		
B02 7 3 2 B02 7 3 3		Load liner into container for transport (to Roberts Bay) Haul debris to Roberts Bay	6 m ³ 6 m ³	C.4.01 S				
B02 7 3 3 B02 7 4 1	Regrade	Haul debris to Roberts Bay Regrade area to ensure positive drainage	6 m ²	C.4.04 S				
iamond Drill Cuttings Settling Pe	ond						\$ 3,110	
B02 8 1 1 B02 8 2 1	Excavate cuttings Remove pond	Stockpile cuttings on-site Excavate textile and place in container for transport	336 m ³ 5 m ³	C.5.04 S				
B02 8 2 2	Remove pond	Regrade area to ensure positive drainage	930 m ²	C.5.05				
ubtotal Direct Costs - Containme	ent Structures						\$ 457,093	
te Regrading amp Complex Foundation Pad							\$ 13,667	
B03 1 1 1	Regrade	Stake-out low-lying areas in summer to place fill	1 days	C.5.14			•,	
B03 1 1 2 oad to Aimaokatalok Lake		Regrade to fill in any low lying areas	2,995 m ²	C.5.05	2.38	\$ 7,123	\$ 1,838	
B03 2 1 1	Regrade	Regrade (crown)	773 m ²	C.5.05	2.38	\$ 1,838	ψ 1,030	
oad to Airstrip			4 700 3	0.505			\$ 4,193	
B03 3 1 1 rstrip	Regrade	Regrade to fill in any low lying areas and crown road	1,763 m ²	C.5.05	2.38	\$ 4,193	\$ 12,697	
B03 4 1 1	Regrade	Regrade to fill in any low lying areas	5,222 m ²	C.5.05	2.38	\$ 12,419	12,007	
B03 4 2 1	Decommission	Place large white X's at each end of strip	1 ls	C.1.09	277.84	\$ 278	A 1010	
ore Storage Road B03 5 1 1	Remove Wind Sock & Culvert	Excavate culvert	7 m ³	C.5.15	87.05	\$ 603	\$ 1,316	
B03 5 1 2		Dismantle windsock	1 ls	C.3.08	352.28	\$ 352		
B03 5 1 3		Load culvert/sock/pole/drum into container for transport (to Roberts Bay)	0.3 m ³	C.4.01				
B03 5 1 4 B03 5 2 1	Regrade	Haul debris to Roberts Bay Regrade to fill in any low lying areas and crown road	0 m ³ 142 m ²	C.4.04 S				
ill Road							\$ 728	
B03 1 1 1 btotal Direct Costs - Camp Surf	Regrade	Regrade to fill in any low lying areas and crown road	306 m ²	C.5.05	2.38	\$ 728	\$ 34,438	
ototal Direct Costs - Camp Sur ne Openings	ace milasuuctuid						\$ 34,438	<u> </u>
rtal/Decline	Demonstration	Collect Debrie feld forces	0.2 3	0.0.5		m	\$ 7,257	
B04 1 1 1 B04 1 1 2	Remove fencing	Collect Debris (ski fence and supports) Load debris into container for transport (to Roberts Bay)	2.2 m ³ 2.2 m ³	C.3.05 S				1
B04 1 1 2 B04 1 1 3		Haul debris to Roberts Bay	2.2 m ³	C.4.01				
B04 1 2 1	Scaling	Use excavator to knock down debris	1 hrs	C.5.11	256.32	\$ 256		Est. 1 hr. Excavator time
B04 1 3 1 nt Raise	Backfill decline	Load, haul, dump waste ore to plug incline	389 m3	C.5.02	17.47	\$ 6,791	\$ 13,771	
B04 2 1 1	Demolish	Demolish garden shed and wood support structures	13 m ³	C.3.05	10.61	\$ 133	, 10,771	
B04 2 1 2		Load debris into container for transport (to Roberts Bay)	19 m ³	C.4.01				
B04 2 1 3 B04 2 2 1	Construct Cap	Haul debris to Roberts Bay 1.5mx2.1m concrete cap with gas vent	19 m ³ 1 LS	C.4.04 S				1
btotal Direct Costs - Mine Oper		oup man guo ront		0.0.00	,504.50	2,000	\$ 21,028	
e Stockpiles nsolidate, Reslope, Encapsulat	e and Cover (0.3 m)						\$ 375,307	
B05 6 1 1	Consolidate stockpiles and dispersed ore	Scrape up and dump ore within consolidated pile	3,803 m ³	C.5.03	23.29	\$ 88,564	\$ 375,507	1
B05 6 1 2		Consolidate ore into large pile	8,265 m ³	C.5.03	23.29	\$ 192,472		
B05 6 2 1 B05 6 3 1	Reslope stockpile Place Synthetic cover	Dozer - D7 Supply and place HDPE liner	2,026 m ² 2,330 m ³	C.5.06 S				1
B05 6 3 1	Cover stockpile	Load, haul, place cover material (assumed sourced within 0.5km)	2,330 m ² 802 m ³	C.5.01				1
btotal Direct Costs - Ore Stock		,				,	\$ 375,307	
ontaminated Soils ontaminated Soil Implementatio	n Plan						\$ 41.333	
ontaminated Soil Implementatio B06 1 1 1 1	Develop Implementation Plan	Includes field investigation, laboratory costs, and reporting	1 ls	- (6 41,333.33	\$ 41,333	,	
ontaminated Soil Implementatio B06 1 1 1 1 ubtotal Direct Costs - Contamina	Develop Implementation Plan	Includes field investigation, laboratory costs, and reporting	1 ls	-	6 41,333.33	\$ 41,333	\$ 41,333 \$ 41,333	
ontaminated Soil Implementatio B06 1 1 1 Ibtotal Direct Costs - Contamina ther Areas fill Sites	Develop Implementation Plan ated Soils							
ontaminated Soil Implementatio B06 1 1 1 ubtotal Direct Costs - Contaminather Areas fill Sites B07 1 1 1	Develop Implementation Plan	Cut of top of drill pipes and cap.	545 ea	C.3.09	31.11	\$ 16,954	\$ 41,333	
ontaminated Soil Implementatio B06 1 1 1 B06 1 1 Costs - Contamina ther Areas rill Sites	Develop Implementation Plan ated Soils				31.11 : 3 8.16 :	\$ 16,954 \$ 74	\$ 41,333	
Documentation Documentatio	Develop Implementation Plan ated Soils Drill piping Core	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area	545 ea 9 m³ 9 m³ - each	C.3.09 S C.4.01 S C.4.04 S C.5.07 S	31.11 3 8 8.16 3 75.78 3 3 35.10	\$ 16,954 \$ 74 \$ 692 \$ -	\$ 41,333	done in 2012
State	Develop Implementation Plan ated Soils Drill piping Core Regrade	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km)	545 ea 9 m³ 9 m³ - each 9,000 m³	C.3.09 S C.4.01 S C.4.04 S C.5.07 S C.5.02 S	31.11 : 8.16 : 8.16 : 6 75.78 : 6 35.10 : 6 17.47 :	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196	\$ 41,333	
Intaminated Soil Implementatio B06	Develop Implementation Plan ated Soils Drill piping Core	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m²	C.3.09 S C.4.01 S C.4.04 S C.5.07 S C.5.02 S C.5.08 S	31.11 : 8.16 : 8.16 : 6 : 75.78 : 6 : 35.10 : 6 : 17.47 : 6 : 4.04 : 6	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820	\$ 41,333	
State	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate post remediation Areas	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m²	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.13	31.11 : 8.16 : 6. 75.78 : 6. 35.10 : 7.47 : 6. 4.04 : 6. 0.77 :	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 6,922	\$ 41,333	
State	Develop Implementation Plan ted Soils Drill piping Core Regrade Revegetate post remediation Areas Areas by the Airstrip (excluding drill sites)	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km)	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m²	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.03 C.	31.11 : 8.16 : 75.78 : 6 : 35.10 : 6 : 17.47 : 6 : 4.04 : 6 : 0.77 : 6 : 17.47 : 17.47 : 1	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930	\$ 41,333 \$ 183,660	
Intaminated Soil Implementatio Book 1 1 1 1 1 1 1 1 1	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate post remediation Areas	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m²	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.13	31.11	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662	\$ 41,333 \$ 183,660	
State	Develop Implementation Plan ted Soils Drill piping Core Regrade Revegetate post remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.08 C.5.08 C.5.13 C.5.08 C.5.08 C.5.08 C.5.13 C.5.08 C.5.08 C.5.08 C.5.08 C.	5 31.11 : 5 8.16 : 5 75.78 : 5 35.10 : 6 17.47	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 13,686	\$ 41,333 \$ 183,660	
Description	Develop Implementation Plan ted Soils Drill piping Core Regrade Revegetate post remediation Areas Areas by the Airstrip (excluding drill sites)	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km)	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	5 31.11 : 5 8.16 : 75.78 : 5 35.10 : 17.47 : 6 4.04 : 6 0.77 : 6 17.47 : 6 4.04 : 6 0.77 : 6 17.47 : 6 4.04 : 6 0.77 : 6 17.47	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594	\$ 41,333 \$ 183,660	
Intaminated Soil Implementatio B06	Develop Implementation Plan ted Soils Drill piping Core Regrade Revegetate post remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.08 C.5.08 C.5.13 C.5.08 C.5.08 C.5.08 C.5.13 C.5.08 C.5.08 C.5.08 C.5.08 C.	31.11 : 5	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594	\$ 41,333 \$ 183,660	
Internated Soil Implementatio Book 1 1 1 1 1 1 1 1 1	Develop Implementation Plan ted Soils Drill piping Core Regrade Revegetate post remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km)	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	5 31.11 : 5 8.16 : 75.78 : 5 35.10 : 75.78 : 6 4.04 : 6 0.77 : 6 17.47 : 6 0.77 : 6 17.47 : 6 0.77 : 6 17.47 : 6 0.77 : 6 17.47 : 6 0.77 : 6 17.47 : 6 0.77 : 6 17.47 : 6 0.77 : 7 17.47 : 7 17.	\$ 16,954 \$ 74 \$ 692 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594 \$ 761 \$ 1,414	\$ 41,333 \$ 183,660	
Name	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m²	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.02 C.5.02 C.5.08 C.5.02 C.5.02 C.5.02 C.5.08 C.5.02 C.	31.11	\$ 16,954 \$ 692 \$ 15,7196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 200 \$ 200 \$ 1,816 \$ 1,414 \$ 1,092	\$ 41,333 \$ 183,660	
Intaminated Soil Implementation Bot 1	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km)	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11	\$ 16,954 \$ 692 \$ 15,7196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 200 \$ 200 \$ 1,816 \$ 1,414 \$ 1,092	\$ 41,333 \$ 183,660	done in 2012
Intaminated Soil Implementation Boto 1	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetates: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate	545 ea 9 m³ 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m²	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13	31.11	\$ 16,954 \$ 74 \$ 692 \$ 15,719 \$ 18,20 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 2,594 \$ 2,00 \$ 200 \$ 1,414 \$ 1,092 \$ 4,152	\$ 41,333 \$ 183,660 \$ 35,091	done in 2012
Intaminated Soil Implementatio Bullet Soil Implementatio Bullet Soil Implementatio Bullet Soil Implementatio Bullet Soil Implementatio Implementatio Implementation Implementa	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dost remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m²	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.02 C.5.02 C.5.08 C.5.02 C.	31.11 8 8.16 8 75.78 35.10 75.78 5 35.10 77.47 6 17.47 6 4.04 6 0.77 6 17.47 6 4.04 6 0.77 6 17.47 6 4.04 6 0.77 7 6 17.47 6 4.04 6 0.77 7 6 17.47 6 4.04 6 0.77 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 761 \$ 1,414 \$ 1,092 \$ 4,152	\$ 41,333 \$ 183,660 \$ 35,091	done in 2012
Intaminated Soil Implementation Bot 1	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetates: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate	545 ea 9 m³ 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m²	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.13	31.11	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 3,898	\$ 41,333 \$ 183,660 \$ 35,091	done in 2012
Intaminated Soil Implementatio B06	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste HC Area by Bright March 1988 Hazardous Waste HC Area Bright March 1988 Hazardous Waste HC Area Bright March 1988 Area Bright March 1988 Area Bright March 1988 Description Ma	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m²	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 3,898	\$ 41,333 \$ 183,660 \$ 35,091	done in 2012
Intaminated Soil Implementation	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste HC Area by Bright March 1988 Hazardous Waste HC Area Bright March 1988 Hazardous Waste HC Area Bright March 1988 Area Bright March 1988 Area Bright March 1988 Description Ma	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Ship by barge to Hay River Ship by barge to Hay River Ship by barge to Hay River	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11 8.16 8.16 75.78 35.10 35.10 77.7 35.10 17.47 4.04 6.0 .77 17.47 4.04 6.0 .77 17.47 4.04 6.0 .77 17.47 4.04 6.0 .77 17.47 6.0 .77 17.47 6.0 .77 17.47 6.0 .77 17.47 6.0 .77 17.47 6.0 .77 17.47 6.0 .77 17.47 6.0 .77 17.47 6.0 .77 17.47	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95	\$ 41,333 \$ 183,660 \$ 35,091 \$ 218,750	done in 2012
Intaminated Soil Implementation Bot 1	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dost remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste HC Contaminated Soils Hazardous Waste pping Non-hazardous waste Sewage sludge	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate	545 ea 9 m³ 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 1,948 m³ 2 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.02 C.5.02 C.5.08 C.5.02 C.5.02 C.5.08 C.5.02 C.	31.11 8 16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.17 6.17 6.17 6.17 6.17 6.17 6.17 6.1	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 10,92 \$ 4,152 \$ 389,589 \$ - \$ 10,730 \$ 10,730 \$ 152	\$ 41,333 \$ 183,660 \$ 35,091 \$ 218,750	done in 2012
Intaminated Soil Implementation	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste pping Non-hazardous waste Sewage sludge HC Contaminated Soils HC Contaminated Soils	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Ship by barge to Hay River Ship by barge to Hay River Ship by barge to Hay River RBC + New Treatment system sludge/solid waste Dump fee at Hay River	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 1,948 m³ 0 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11 8.16 8.16 75.78 35.10 35	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 4,862 \$ 3,599 \$ 12,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 152 \$ 10,730	\$ 41,333 \$ 183,660 \$ 35,091 \$ 218,750	done in 2012
Intaminated Soil Implementation Bot 1	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste HC Contaminated Soils Hazardous Waste	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate	545 ea 9 m³ 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 1,948 m³ 2 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.02 C.5.02 C.5.08 C.5.02 C.5.02 C.5.08 C.5.02 C.	31.11 8.16 8.16 75.78 35.10 75.78 35.10 75.78 35.10 75.78 35.10 75.78 35.10 35	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 4,862 \$ 3,599 \$ 12,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 152 \$ 10,730	\$ 41,333 \$ 183,660 \$ 35,091 \$ 218,750	done in 2012
Intaminated Soil Implementatio B06	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste HC Contaminated Soils Hazardous Waste	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Ship by barge to Hay River Ship by barge to Hay River Ship by barge to Hay River Disposal fee at Hay River Disposal fee at Hay River Dump fee at Hay River Dump fee at Hay River	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 1,948 m³ 0 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11 8.16 8.16 75.78 35.10 35	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 4,862 \$ 3,599 \$ 12,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 152 \$ 10,730	\$ 41,333 \$ 183,660 \$ 35,091 \$ 218,750 \$ 389,684 \$ 15,631	done in 2012
Intaminated Soil Implementatio B06	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste HC Contaminated Soils Hazardous Waste	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Ship by barge to Hay River Ship by barge to Hay River Ship by barge to Hay River RBC + New Treatment system sludge/solid waste Dump fee at Hay River	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 1,948 m³ 0 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11 8.16 8.16 75.78 35.10 35	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 4,862 \$ 3,599 \$ 12,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 152 \$ 10,730	\$ 41,333 \$ 183,660 \$ 35,091 \$ 218,750 \$ 389,684	done in 2012
Intaminated Soil Implementatio	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Deping	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Ship by barge to Hay River Disposal fee at Hay River Disposal fee at Hay River Dump fee at Hay River Dump fee at Hay River Dump fee at Hay River	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ 0,48 m³ 1,948 m³ 0 m³ 0,48 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.	31.11 8.16 8.16 75.78 35.10 17.47 6.17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.47 6.0.77 17.4	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594 \$ 200 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 12,504 \$ 10,730 \$ 12,504 \$ 10,730 \$ 12,504 \$ 10,730 \$ 12,504 \$ 12	\$ 41,333 \$ 183,660 \$ 35,091 \$ 218,750 \$ 389,684 \$ 15,631	done in 2012
Intaminated Soil Implementatio Book 1	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste HC Contaminated Soils Hazardous Waste	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Ship by barge to Hay River Ship by barge to Hay River Ship by barge to Hay River Disposal fee at Hay River Disposal fee at Hay River Dump fee at Hay River Dump fee at Hay River	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 1,948 m³ 0 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.	31.11 8.16 8.16 75.78 35.10 35	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594 \$ 200 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 12,504 \$ 10,730 \$ 12,504 \$ 10,730 \$ 12,504 \$ 10,730 \$ 12,504 \$ 12	\$ 41,333 \$ 183,660 \$ 35,091 \$ 389,684 \$ 15,631 \$ 1,775,746 \$ 274,086	done in 2012
Intaminated Soil Implementatio B06	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Deping Non-hazardous Waste Deping Non-hazardous Waste Deping Contingency Winter Closure activities	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Ship by barge to Hay River Disposal fee at Hay River Disposal fee at Hay River Dump fee at Hay River Dump fee at Hay River Dump fee at Hay River	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m² 17,795 m² 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ 0,48 m³ 1,948 m³ 0 m³ 0,48 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11	\$ 16,954 \$ 74 \$ 692 \$ 15,7196 \$ 18,20 \$ 6,922 \$ 2,930 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594 \$ 10,730 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 4,750	\$ 41,333 \$ 183,660 \$ 35,091 \$ 389,684 \$ 1,775,746	done in 2012
Intaminated Soil Implementation	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dost remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Dosal Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Dosal Contingency Winter Closure activities Equipment stand-by	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pl	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 1,948 m³ 2 m³ 0 m³ 0.48 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.08 C.5.03 C.5.03 C.5.08 C.5.13 C.5.02 C.5.08 C.5.03 C.5.03 C.5.08 C.5.03 C.5.03 C.5.08 C.5.03 C.5.08 C.5.03 C.5.08 C.5.03 C.5.08 C.5.03 C.5.08 C.5.08 C.5.03 C.5.08 C.	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.10.00	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 200 \$ 761 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 152 \$ 4,750 \$ 4,750	\$ 41,333 \$ 183,660 \$ 35,091 \$ 389,684 \$ 15,631 \$ 1,775,746 \$ 274,086	done in 2012
Intaminated Soil Implementatio Book 1	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Deping Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Ship by barge to Hay River Ship by barge to Hay River Ship by barge to Hay River Disposal fee at Hay River Disposal fee at Hay River Disposal fee at Hay River TOTAL DIRECT COSTS	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m² 17,795 m² 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ 0,48 m³ 1,948 m³ 0 m³ 0,48 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.10.00	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 200 \$ 761 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 152 \$ 4,750 \$ 4,750	\$ 41,333 \$ 183,660 \$ 35,091 \$ 389,684 \$ 15,631 \$ 1,775,746 \$ 274,086	done in 2012
Intaminated Soil Implementation	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dost remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Dosal Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Dosal Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pl	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 450 m² 9,000 m² 168 m³ 267 m³ 890 m² 17,795 m² 149 m³ 50 m² 9900 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 0.48 m³ 0.48 m³ 1.948 m³ 2 m³ 0 m³ 0.48 m³ 1.948	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 6.0.77 6.17.47 4.04 6.0.77 6.17.47 6.17 6.17 6.17 6.17 6.17 6.17 6.17 6.1	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,665 \$ 3,599 \$ 13,686 \$ 2,594 \$ 200 \$ 761 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 152 \$ 4,750 \$ 5,7500 \$ 7,500	\$ 41,333 \$ 183,660 \$ 35,091 \$ 35,091 \$ 389,684 \$ 1,775,746 \$ 274,086 \$ 2,937,251	done in 2012
Interminated Soil Implementation B06	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Deping Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance Camp Management	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pl	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 1,948 m³ 2 m³ 0 m³ 0.48 m³ 20 m³ 0.48 m³ 1 LS 59 km	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 10,730 \$ 162 \$ 3,7504 \$ 37,504 \$ 337,504 \$ 337,50	\$ 41,333 \$ 183,660 \$ 35,091 \$ 35,091 \$ 389,684 \$ 1,775,746 \$ 274,086 \$ 2,937,251	done in 2012
Intaminated Soil Implementatio B06	Develop Implementation Plan ated Soils Drill piping Core Regrade Revegetate Dost remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Dosal Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Dosal Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pl	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 9900 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 0.48 m³ 1,948 m³ 2 m³ 0 m³ 0.48 m³	C.3.09	31.11	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,665 \$ 3,599 \$ 13,686 \$ 2,594 \$ 200 \$ 761 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 152 \$ 4,750 \$ 5,7500 \$ 7,500	\$ 41,333 \$ 183,660 \$ 35,091 \$ 35,091 \$ 389,684 \$ 1,775,746 \$ 274,086 \$ 2,937,251	done in 2012
Intaminated Soil Implementation Both 1	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Is Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Posal Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance Camp Management Camp Operations Camp Rental	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pl	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ 0 m³ 0.48 m³ 1,948 m³ 0 m³ 0.48 m³ 2 m³ 0 m³ 0.48 m³ 1 LS 59 km	C.3.09	31.11	\$ 16,954 \$ 74 \$ 692 \$ - \$ 157,196 \$ 1,820 \$ 4,662 \$ 3,599 \$ 13,686 \$ 2,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 95 \$ 10,730 \$ 4,750 \$ 274,086 \$ 337,504 \$ 632,097 \$ 1,967,650 \$ 7,500 \$ 1,433 \$ 15,884 \$ 400,000	\$ 41,333 \$ 183,660 \$ 35,091 \$ 35,091 \$ 389,684 \$ 1,775,746 \$ 274,086 \$ 2,937,251	done in 2012
Intaminated Soil Implementation Boto 1	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Deping Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance Camp Management Camp Operations Camp Rental Supervision	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and place cocoa mat	545 ea 9 m³ 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 9900 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.5.02 C.5.08 C.5.13 C.5.02 C.	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 6.17 6.17 6.17 6.17 6.17 6.17 6.17 6.1	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 13,686 \$ 2,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 10,730 \$ 152 \$ 4,750 \$ 1,750 \$ 1,7	\$ 41,333 \$ 183,660 \$ 35,091 \$ 35,091 \$ 1,75,746 \$ 2,937,251 \$ 437,722	done in 2012
Intaminated Soil Implementation Book 1	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Is Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Deping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Posal Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance Camp Management Camp Operations Camp Rental	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pl	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ 0 m³ 0.48 m³ 1,948 m³ 0 m³ 0.48 m³ 2 m³ 0 m³ 0.48 m³ 1 LS 59 km	C.3.09	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 4.04 6.0.77 17.47 4.04 6.0.77 17.47 6.17 6.17 6.17 6.17 6.17 6.17 6.17 6.1	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 4,662 \$ 2,930 \$ 4,662 \$ 2,594 \$ 13,686 \$ 2,594 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 10,730 \$ 152 \$ 4,750 \$ 1,750 \$ 1,750 \$ 1,750 \$ 1,750 \$ 2,74,086 \$ 337,597 \$ 1,967,650 \$ 1,438 \$ 1,584 \$ 1,967,650 \$ 2,4,830 \$ 2,4830 \$ 2,4830	\$ 41,333 \$ 183,660 \$ 35,091 \$ 389,684 \$ 1,775,746 \$ 2,937,251 \$ 437,722 \$ 203,397	done in 2012
Interminated Soil Implementation	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dost remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Dosal Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Dosal Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance Camp Management Camp Operations Camp Rental Supervision Equipment maintenance support - Mechanic Helicopter Support	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pla	545 ea 9 m³ 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 9900 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 0.48 m³ 0.48 m³ 0.48 m³ 1.5948 m³ 1.	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 6.0.77 17.47 4.04 6.0.77 17.47 4.04 6.0.77 17.47 4.04 6.0.77 17.47 17	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 6,922 \$ 2,930 \$ 4,665 \$ 3,599 \$ 13,686 \$ 2,594 \$ 10,92 \$ 4,152 \$ 389,589 \$ 10,730 \$ 152 \$ 4,750 \$ 761 \$ 10,730 \$ 152 \$ 37,500 \$ 7,500 \$ 14,438 \$ 15,886 \$ 2,594 \$ 10,730 \$ 389,589 \$ 24,152	\$ 41,333 \$ 183,660 \$ 35,091 \$ 35,091 \$ 1,75,746 \$ 2,937,251 \$ 437,722	done in 2012 Assumed open for 4 months
Interminated Soil Implementation Book 1	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Destination Hollowance Camp Management Camp Operations Camp Rental Supervision Equipment maintenance support - Mechanic Helicopter Support Contractor profit	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Ship by barge to Hay River Ship by barge to Hay River Ship by barge to Hay River Disposal fee at Hay River Disposal fee at Hay River Disposal fee at Hay River TOTAL DIRECT COSTS 20% of direct costs Equipment Mobilization/Demobilization Required during closure	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 990 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 2 m³ 0 m³ 0.48 m³ 1 LS 1 LS 59 km	C.3.09	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.17.47 6.4.04 6.0.77 6.4.04 6.0.77 6.4.04 6.0.00 6.4.00	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 1,820 \$ 1,820 \$ 1,820 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 10,92 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 10,730 \$ 152 \$ 4,750 \$ 7,500 \$ 1,433 \$ 15,284 \$ 10,750 \$ 1,4086 \$ 274,086 \$ 337,504 \$ 1,967,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,750 \$ 1,650 \$	\$ 41,333 \$ 183,660 \$ 183,660 \$ 35,091 \$ 35,091 \$ 1,775,746 \$ 274,086 \$ 2,937,251 \$ 437,722 \$ 203,397 \$ 200,000	done in 2012 Assumed open for 4 months
Intaminated Soil Implementation	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dost remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Sewage sludge HC Contaminated Soils Hazardous Waste Dosal Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance Camp Management Camp Operations Camp Rental Supervision Equipment maintenance support - Mechanic Helicopter Support Contractor profit Ess Engineering Design	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pla	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 450 m² 9,000 m² 168 m³ 267 m³ 890 m² 17,795 m² 149 m³ 50 m² 9900 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 0.48 m³ 1.948 m³ 2 m³ 0 m³ 0.48 m³ 1.559 km	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.0.00 6	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 1,820 \$ 1,820 \$ 1,820 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 10,92 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 10,730 \$ 152 \$ 4,750 \$ 17,500 \$ 1,433 \$ 15,284 \$ 10,750 \$ 1,4086 \$ 274,086 \$ 274,086 \$ 337,504 \$ 1,438 \$ 15,884 \$ 10,750 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,750 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,750 \$ 1,650 \$ 2,167 \$ 1,650 \$ 1,650	\$ 41,333 \$ 183,660 \$ 35,091 \$ 35,091 \$ 389,684 \$ 1,775,746 \$ 274,086 \$ 2,937,251 \$ 437,722 \$ 203,397 \$ 200,000	done in 2012 Assumed open for 4 months
Intaminated Soil Implementation	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge BS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Poping Non-hazardous waste Sewage sludge HC Contaminated Soils Hazardous Waste Poping Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance Camp Management Camp Operations Camp Rental Supervision Equipment maintenance support - Mechanic Helicopter Support Contractor profit	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pla	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 168 m³ 267 m³ 890 m2 17,795 m2 149 m³ 50 m² 9900 m² 81 m³ 270 m² 5,398 m² 1,948 m³ 0,48 m³ 0 m³ 0,48 m³ 1 ls 1 LS 59 km 1 LS 59 km 1 LS 59 km	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.	31.11 3 8.16 5 75.78 3 5.10 5 17.47 5 4.04 6 0.77 6 4.04 6 0.77 6 4.04 6 0.77 6 4.04 6 0.77 6 17.47 6 4.04 6 0.77 6 17.47 6 10.00 6 17.47 6 10.00 6 10.00 6 10.00 6 10.00 6 10.00 6 10.00 6 17.00 6 17.00 6 10.00 6 10.00 6 10.00 6 10.00 6 10.00 6 11	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 1,820 \$ 1,820 \$ 1,820 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 10,92 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 10,730 \$ 152 \$ 4,750 \$ 17,500 \$ 1,433 \$ 15,284 \$ 10,750 \$ 1,4086 \$ 274,086 \$ 274,086 \$ 337,504 \$ 1,438 \$ 15,884 \$ 10,750 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,750 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,750 \$ 1,650 \$ 2,167 \$ 1,650 \$ 1,650	\$ 41,333 \$ 183,660 \$ 183,660 \$ 35,091 \$ 35,091 \$ 1,775,746 \$ 274,086 \$ 2,937,251 \$ 437,722 \$ 203,397 \$ 200,000	done in 2012 Assumed open for 4 months
Intaminated Soil Implementation	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dost remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Sewage sludge HC Contaminated Soils Hazardous Waste Dosal Contingency Winter Closure activities Equipment stand-by Construct and maintain Winter Road Travel allowance Camp Management Camp Operations Camp Rental Supervision Equipment maintenance support - Mechanic Helicopter Support Contractor profit Ess Engineering Design	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pla	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 450 m² 9,000 m² 168 m³ 267 m³ 890 m² 17,795 m² 149 m³ 50 m² 9900 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 0.48 m³ 1.948 m³ 2 m³ 0 m³ 0.48 m³ 1.559 km	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.0.00 6	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 1,820 \$ 1,820 \$ 1,820 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 10,92 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 10,730 \$ 152 \$ 4,750 \$ 17,500 \$ 1,433 \$ 15,284 \$ 10,750 \$ 1,4086 \$ 274,086 \$ 274,086 \$ 337,504 \$ 1,438 \$ 15,884 \$ 10,750 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,750 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,750 \$ 1,650 \$ 2,167 \$ 1,650 \$ 1,650	\$ 41,333 \$ 183,660 \$ 183,660 \$ 35,091 \$ 35,091 \$ 1,775,746 \$ 274,086 \$ 2,937,251 \$ 437,722 \$ 203,397 \$ 200,000	done in 2012 Assumed open for 4 months 4 trips, 6 hrs/day;
Intaminated Soil Implementation	Develop Implementation Plan atted Soils Drill piping Core Regrade Revegetate Dest remediation Areas Areas by the Airstrip (excluding drill sites) Area by Drill Road Area by Core Storage Road Area by Grey Water Discharge IS Non-Hazardous Waste HC Contaminated Soils Hazardous Waste Destardous Waste Destardo	Cut of top of drill pipes and cap. Load top debris into containers for transport to Roberts Bay Haul debris to Roberts Bay Remove any core to the core storage area Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Seed/Fertilize, by hand, high application rate Fill in low-lying areas (assumed sourced within 0.5km) Revegetate: Supply and place cocoa matting Revegetate: Supply and pla	545 ea 9 m³ 9 m³ - each 9,000 m³ 450 m² 9,000 m² 450 m² 9,000 m² 168 m³ 267 m³ 890 m² 17,795 m² 149 m³ 50 m² 9900 m² 81 m³ 270 m² 5,398 m² 1,948 m³ - m³ 0.48 m³ 0.48 m³ 1.948 m³ 2 m³ 0 m³ 0.48 m³ 1.559 km	C.3.09 C.4.01 C.4.04 C.5.07 C.5.02 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.5.13 C.5.08 C.	31.11 8.16 8.16 75.78 35.10 75.78 35.10 77.47 4.04 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.17.47 6.0.77 6.0.00 6.0	\$ 16,954 \$ 74 \$ 692 \$ 157,196 \$ 1,820 \$ 1,820 \$ 1,820 \$ 1,820 \$ 2,930 \$ 4,652 \$ 3,599 \$ 13,686 \$ 2,594 \$ 10,92 \$ 1,414 \$ 1,092 \$ 4,152 \$ 389,589 \$ 10,730 \$ 152 \$ 4,750 \$ 17,500 \$ 1,433 \$ 15,284 \$ 10,750 \$ 1,4086 \$ 274,086 \$ 274,086 \$ 337,504 \$ 1,438 \$ 15,884 \$ 10,750 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,750 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,650 \$ 1,750 \$ 1,650 \$ 2,167 \$ 1,650 \$ 1,650	\$ 41,333 \$ 183,660 \$ 35,091 \$ 389,684 \$ 1,775,746 \$ 2,937,251 \$ 437,722 \$ 203,397 \$ 200,000 \$ 150,000	Assumed open for 4 months 4 trips, 6 hrs/day;

December 2012

Table 3. Mobilization/ Demobilization costs

Mob/Demob Costs

Crew mobilization costs included in loaded labour rates.

The barging fee for equipment is calculated on a square foot basis.

No. of							
units	Description	Units	Quantity	Unit cos	t 2	2012 Task cost	Notes
	Crew						
	Note: Labour costs included in loaded Labour Unit I	Rates found on the Ur	nit Rates and Ta	ask Unit Ra	tes wo	orksheets	
	Construction equipment	Footprint					
1	Bobcat	m³	11.0	\$ 332.9	96 \$	3,658	From Hay River to Roberts Bay
1	Loader	m^2	10.2	\$ 332.9	96 \$	3,400	From Hay River to Roberts Bay
1	Dozer	m^2	20.3	\$ 332.9	96 \$	6,750	From Hay River to Roberts Bay
1	Excavator	m^2	38.1	\$ 332.9	96 \$	12,688	From Hay River to Roberts Bay
1	Small equipment	m ³	24.1	\$ 332.9	96 \$	8,025	From Hay River to Roberts Bay
1	Trucks (CAT 735)	m^2	41.6	\$ 332.9	96 \$	13,860	From Hay River to Roberts Bay
0	Tractor trailer	m ³	86.8	\$ 332.9	96 \$	-	From Hay River to Roberts Bay
1	Crew cab pickup (Ford F350)	m ³	33.8	\$ 332.9	96 \$	11,254	From Hay River to Roberts Bay
	Truck equipment to Hay River (6 trucks)	each	7	\$15,000.	00 \$	105,000	= hauling 8 trailers from Edmonton / source: Doris cost estimate
		•	Subtotal	Mobilisati	on \$		
			Subtotal De	mobilisati	on \$	172,868	Assumes same cost as mobilisation, updated by 5%
				To	tal \$	337,504	

Equipment	stand-by						
	Stand-by time	days	123	2569.5	\$316,048.50	fall	May 1st to August 31; assume 10 hr days
		days	123	2569.5	\$316,048.50	spring	October 1st to January 31st; assume 10 hr days

Total \$632,097

Camp costs

						- 10 ·
Description	Units	Cost Code	Quantity	Unit Cost		Task Cost
Camp Management	day	OC.01	21	\$677.00	\$14,338	
Camp Operations	per day per person	OC.02	105.894867	\$150.00	\$15,884	5 person crew for 21 days
Camp Rental	year	OC.03	1	\$400,000.00	\$400,000	
Travel allowance	charter flights	OC.05	0	\$10,000.00	\$0	charter flights for 15 person crews
	commercial flights	OC.04	10	\$750.00	\$7,500	maximum of 2 weeks rotations
					\$437,722	

Boston_ClosureCostEstimate_1CH008.069_PLIM_Rev11_sw

Table 4. Unit Rates

Code	
Equipment	
E-01 Dozer (CAT D4) S 166.50 Int. Noutry equipment rate (less operator) Nuna 2012 equipment rates	
E-02 Dozer (CAT D4) S 66.60 Int. Noutry equipment rate (less operator) Nuna 2012 equipment rates	
E.05 Excavator (CAT 730) \$ 138.70 hr. hourly equipment rate (less operator) Nuna 2012 equipment rates	
E.05 Excavator (CAT 730) \$ 138.70 hr. hourly equipment rate (less operator) Nuna 2012 equipment rates	
E.06 Loader (CAT IT38/930) \$ 8.230 hr. hourly equipment rate (less operator) Nuna 2012 equipment rates	
E.06 Loader (CAT IT38/930) \$ 8.230 hr. hourly equipment rate (less operator) Nuna 2012 equipment rates	
E.08	
E.10 Welding Equipment	
E.10 Power washer	
E.11 Drum crusher \$ 3,56 0 mr. 30 tones, mobile RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 20	
E.12 Oil-water separator \$ 27.50 hr. 10 GPM, underground RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 201 10 GPM, underground RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 201 10 GPM, underground RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 2012, 10% Materials M.01 Liner - HDPE \$ 28.93 m² supply and install from JDS (Surface Water Management Options Analysis) M.02 Liner - geotextile \$ 26.62 m² supply and install from JDS (Surface Water Management Options Analysis) M.03 Fuel (Diesel) \$ 1.17 L 2008 Landed fuel cost at Hope Bay Maritz (from JDS (Surface Water Management Options Analysis) M.04 Explosives \$ 21.38 m² 15% freight cost added RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 20 M.05 Sill Fencing \$ 1.32 m 15% freight cost added RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 20 M.05 Sill Fencing \$ 1.32 m 15% freight cost added RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 20 M.05 Sill Fencing \$ 1.567 Kright cost added RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 20 M.05 Sill Fencing \$ 1.567 Kright cost added Cost Mine 2011; original price quoted in single and communication of the communication with Rob Jamieson@Hay River Disposal Handling fee Personal communication with Rob Jamieson@Hay River Disposals Ltd. Liner Polymore Po	<u>62D0079</u>
Materials	
Materials	
M.01 Liner - HDPE \$ 28,33 m² supply and install from JDS (Surface Water Management Options Analysis) M.02 Liner - geotextile \$ 26,62 m² supply and install from JDS (Surface Water Management Options Analysis) M.03 Fuel (Diesel) \$ 1.17 L 2008 Landed fuel cost at Hope Bay Maritz (from Jeff Reinson @ Newmont) M.04 Explosives \$ 21.38 m² 15% Freight cost added RSMeans, 2005; adjusted to 2009 oldrars based on CPI+ 15% rate increase to 20 M.05 Silf Freining \$ 1.32 m² 15% Freight cost added Cost Mine 2011; original price quoted in linear ft M.05 Good Cocomatting \$ 1.79 m² 15% Freight cost added Cost Mine 2011; original price quoted in linear ft M.07 Seed/Fertilizer \$ 15.67 kg 15% Freight cost added Cost Mine 2011; original price quoted in sq. yards M.08 Winter road \$ 16,675.00 km km Open and maintain for 2 months NUNA Logistics (from Court Smith) + 15% cost increase to 2012 M.09 Hazardous Waste Disposal Fee (@Hay River) \$ 5.51 m³ m³ Disposal + handling fee SNLNA Logistics (from Court Smith) + 15% cost increase to 2012 SNL River <th< td=""><td>fuel factor</td></th<>	fuel factor
M.02 Liner - geotextile	
M.03 Fuel (Diesel) S	
M.04 Explosives S 21.38 m² 15% freight cost added RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 20 M.05 Silt Fencing S 1.32 m 15% freight cost added Cost Mine 2011; original price quoted in linear ft Cost Mine 2011; original price quoted in sq. yards M.06 Coco-matting S 1.567 kg 15% freight cost added Cost Mine 2011; original price quoted in sq. yards M.07 Seed/Fertilizer S 15.67 kg 15% freight cost added Cost Mine 2011; original price quoted in sq. yards Arctic Alpine seed mix-fertilizer (2009) M.08 Winter road S 16,675.00 km Open and maintain for 2 months NUNA Logistics (from Court Smith) + 15% cost increase to 2012 M.08 Mazardous Waste Disposal Fee (@Hay River) S 5.51 m³ Disposal + handling fee Personal communication with Rob Jamieson@Hay River Disposals Ltd. M.12 Bentonite chips S 570.96 m³ In 50 pound bags, 15% freight cost added Holly North Production Supplies Limited Liabour general S 56.96 km M. Labour general S 56	· · · · · · · · · · · · · · · · · · ·
M.05 Silt Fencing S 1.32 m 15% freight cost added Cost Mine 2011; original price quoted in linear ft	
M.06 Coco-matting S 1.79 m² 15% freight cost added Cost Mine 2011; original price quoted in sq. yards	12
M.07 Seed/Fertilizer S 15.67 kg 15% freight cost added Arctic Alpine seed mix-fertilizer (2009)	-
M.08 Winter road \$ 16,675.00 km open and maintain for 2 months NUNA Logistics (from Court Smith) + 15% cost increase to 2012	-
M.10 Hazardous Waste Disposal Fee (®Hay River) S 5.51 m ³ Disposal + handling and cleaning fee SRK estimate Personal communication with Rob Jamieson@Hay River Disposals Ltd. River) S 5.51 m ³ Disposal + handling fee Personal communication with Rob Jamieson@Hay River Disposals Ltd. River Dispo	
M.10 Demolition Debris Disposal Fee (@Hay Niver) M.12 Bentonite chips \$ 570.96 m³ In 50 pound bags, 15% freight cost added Holly North Production Supplies Limited Labour L.01 Labour general \$ 56.96 hr. Electrician, Welder, plumber etc. Nuna Blended 2012 rate POH in L.02 Labour-Trades \$ 85.26 hr. Electrician, Welder, plumber etc. Nuna Blended 2012 rate POH in L.05 Supervision \$ 97.70 hr. Nuna Blended 2012 rate POH in L.06 Truck Drivers \$ 56.581 hr. Heavy Equipment Nuna Blended 2012 rate POH in L.07 Heavy Equipment Operator \$ 7.132 hr. Light equipment Nuna Blended 2012 rate POH in L.08 Technician (Consultant) \$ 130.00 hr. Staff Consultant STECHNIC TO STRICE THE POH IN STRICE THE POH IN L.09 Staff Consultant Nuna Blended 2012 rate POH in L.09 Staff Consultant Nuna Blended 2012 rate POH in STRK-Estimate (all inclusive) STRK-Estimate (all inclusive) STRK-Estimate (all inclusive) Shipping S.01 Outbound Shipping - Soils \$ 989.00 m³ 1.7 t/m³ bulk density (7.75 m³/seacan based on 29,000 lbs. limit per seacan, seacan is 38.5 m³) - from 1	
M.10 River) \$ 5.51 m² Disposal + handling ree Personal communication with Rob Jamleson en Hay River Disposals Ltd. M.12 Bentonite chips \$ 5.70.96 m³ in 50 pound bags, 15% freight cost added Holly North Production Supplies Limited L.02 Labour Trades \$ 85.26 hr. Electrician, Welder, plumber etc. Nuna Blended 2012 rate POH in Nuna Blen	
M.12 Bentonite chips \$ 570.96 m³ In 50 pound bags, 15% freight cost added Holly North Production Supplies Limited	
Lo01	
L02 Labour - Trades	
L.05 Supervision \$ 9.770 hr. Nuna Blended 2012 rate POH in	
L.06 Truck Drivers \$ 65.81 hr. Heavy Equipment Nuna Blended 2012 rate POH in	
L07 Heavy Equipment Operator \$ 71.32 hr. Light equipment Nuna Blended 2012 rate POH in	
L.08 Technician (Consultant) \$ 130.00 hr. Staff Consultant SRK-Estimate (all inclusive) Note: Loading Rate includes allowances for (EI, CPP, MSP/Benefits/Travel/OT) Shipping S.01 Outbound Shipping - Soils \$ 989.00 m³ 1.7 t/m³ bulk density (7.75 m³/seacan based on 29,000 lbs. limit per seacan, seacan is 38.5 m³) - from 1	
L.09 Note: Loading Rate includes allowances for (El, CPP, MSP/Benefits/Travel/OT) Shipping S.01 Outbound Shipping - Soils \$ 989.00 m³ 1.7 t/m³ bulk density (7.75 m³/seacan based on 29,000 lbs. limit per seacan, seacan is 38.5 m³) - from 1	
L'U9 for (EI, CPP, MSP/Benefits/Travel/OT) Shipping S.01 Outbound Shipping - Soils \$ 989.00 m³ 1.7 t/m³ bulk density (7.75 m³/seacan based on 29,000 lbs. limit per seacan, seacan is 38.5 m³) - from 1	
S.01 Outbound Shipping - Soils \$ 989.00 m³ 1.7 t/m³ bulk density (7.75 m³/seacan based on 29,000 lbs. limit per seacan, seacan is 38.5 m³/s - from 1	
1 S.U.Z. IOutbound Shipping - Haz Waste 1 S 200.00 Im ³ 11.0 t/m ³ hulk density 1/7.75 m ³ /searan based on 29.000 like limit per capacan ic 38.5 m ³ / ₂ - from it	
	NTCL 17APR 13
S.03 Outbound Shipping - Demolition \$ 200.00 m ³ 0.733 t/m ³ bulk density \$7661/seacan (seacan is 38.5 m ³) - from NTCL 17APR 12	
Hydrocarbon Soils and Haz Waste	
H.01 Excavate impacted soil \$ 19.18 m ³ WESA estimate	
H.02 Low temperature thermal desorption \$ 100.00 m ³ WESA estimate	
H.03 Rehydrate and backfill \$ 10.69 m³ WESA estimate	
H.04 Regrade and reshape \$ 2.38 m ² WESA estimate	
H.05 Tipping Fee for HC Soils at Hay River \$ 100.00 tonne Communication with Hay River Landfill Tharp 18APR12	
Owner's cost	
OC.01 Camp management \$ 677.00 day Newmont	
OC.02 Camp operations \$ 150.00 day includes food and camp maintenance Newmont	
OC.03 Camp rental \$ 400,000.00 year 25 man mobile camp Newmont	
OC.04 Commercial flight \$ 750.00 person flight from Yellowknife to Cambridge Bay and return	
OC.05 Charter flight \$ 10,000.00 flight Return from Yellowknife	
Stand by equipment rates	
SB. 01 Dozer (CAT D7) 83.25 hr 50 % hourly equipment rate (less operator) Nuna 2012 Equipment Rates	
SB. 02 Excavator (CAT 330 CL) 92.5 hr 50 % hourly equipment rate (less operator) Nuna 2012 Equipment Rates	
SB. 03 Loader (CAT 966 F) 41.15 hr 50 % hourly equipment rate (less operator) Nuna 2012 Equipment Rates	
SB. 04 Skidder (CAT 242B) 40.05 hr 50 % hourly equipment rate (less operator) Nuna 2012 Equipment Rates	

Botto, Coswe/Confisionite, 1/000.000/P, 1/M Inv1 ; w

Table 5. Task Unit Rates

Property	Table 5. Task Unit Rates				'4 B-4			Labour					Equi	pment				
Property	Cost		Productivity		it Rates	\$ 56	6.96 \$ 85.26 \$ 85.	26 \$ 130.00	\$ 65.81 \$ 71.32	\$ 166.50	\$ 185.00 \$ 82.3	0 \$ 80	\$138.70	\$2,100.00	\$ 296.34 \$	3.56 \$ 11.00	\$ 5.26	
Property of the content of the con	Code	Unit		Material Unit	t Labour Unit				Truck Heavy	Dozor					Di			Note / Source
Secretary Company of the company of			(,						Drivore Equipmen	CAT D7				Helicopter				
Column C	Decommissioning								Operator									
Column C	C.1.01 Decommission and remove all heating fuel tanks and place into lined facility								0.5		0.5							Disconnect and remove all fuel drums and disconnect all Tidy Tanks from all structures
Fig. Column Col	C.1.02 Decommission above ground storage tanks					\$ - 2	1											Disconnect all fuel lines and electrical parts
Fig. Column Col	C.1.03 Decommission potable water supply						1 1		0.25		0.25							Disconnect all electrical and plumbing (intake and distribution)
Marine Control growing amounts Marine Mari							1		0.25		0.25							Disconnect and remove ruei storage De-energise main electrical board, disconnect auxiliary power (if exists)
Column C	· · · · · · · · · · · · · · · · · · ·				1													De-energise main breaker board, disconnect external fuel tanks (if needed) / loader used for lifting; source
Second Content of the Content of t	=								0.5		0.5							RSMeans (260505252100)
Column C							0.5		0.5		0.5							source - SRK estimate
Second Continue of the conti									0.5	-	0.5							Accumed material cost for a high density plastic, pails and candbags
2-22 October Control C	C.1.09 Decontinission Alistrip - Place large AS at each end of strip	eacii	0.5	\$ 211.84 \$ 30.0	0 9 227.04	φ - 2												Assumed material cost for a might density plastic, mails and sandbags.
Column C	Decontamination																	
Column C	C.2.01 Collect hazardous chemical waste and place in suitable containers								1		1							
Column C	C.2.02 Drain and power-wash heating fuel tanks (Tidy Tanks)																	
Column C	C.2.03 Drain above ground fuel storage tank															- 1		Drain fuel /source - SRK estimate
Column C	C.2.04 Pressure wash above ground ruer tank C.2.05 Drain and power-wash empty fuel drums								1									Drain fuel and triple-rinse drum (collect water for treatment)
Column C	C.2.06 Flush sewage treatment unit and collect sewage sludge	each	0.4						0.5		0.5							Flush treatment unit with water (collect water for treatment)/source - SRK estimate
Color Properties of glane draws 4 5 5 5 5 5 5 5 5 5	C.2.07 Empty incinerator and collect ashes								0.5		0.5							
Color Colo	C.2.08 Operate oil/water separator															1		Siphon the water than drain the oil - 15 minutes per 55 gal. drum
Cold Control Prince Cold Control Prince Cold C	C.2.09 Empty soil from 45 gallon drums	each	4	\$ 92.56 \$ -	\$ 46.31	\$ 46.25 2		\rightarrow	1	1	1							
Cold Control Prince Cold Control Prince Cold C	Demolition																	
Cold Control Prince Cold Control Prince Cold C	C.3.01 Crush empty fuel drums	each	20	\$ 13.56 \$ -	\$ 9.26	\$ 4.29 2			1		1					1		Same as C.4.01
Cold Control Prince Cold Control Prince Cold C	C.3.02 Cut Tank Farm geomembrane to manageable size	sq. m	80	\$ 2.14 \$ -	\$ 2.14	\$ - 3												source - SRK estimate
Color Control without plane for the plan	C.3.03 Remove intake noses and cut to manageable size	Lm	100			\$ 0.46 2			0.5		0.5						1	source - SRK estimate
Column Provide Maria plane and the marked when the marked of the mar			0.50															Described and the state of the
Cast										1	·							
Col. Desire for Collegement (Collegement										-	· ·						1	Demonstration / Source - SKK estimate
Call De Carlos de del Carrier de Ministre from the Carrier Car	C.3.08 Dismantle Old Equipment (torch)					\$ 10.52 3			'		<u> </u>						1	
Case	C.3.09 Cut of tops of drill casings																1	
Second Continue description description description of the continue of the	C.3.10 Clean up debris from site										1							
4.46 4 4 5 5 5 5 5 5 5 5		each	0.04	\$ 14,052.00 \$ -	\$ 9,612.00	\$ 4,440.00 2	1	1	1		1							source - SRK estimate
CAUS Seal Armander of Section and Personal P		3	40	0.40	£ 0.07	£ 5.40					-							CDV and added draw first advantage
A 2.00 A your mean risk to Dens Carrier (2.52 m) Container (2.52 m) Co	C.4.01 Load demolition debris/solid waste in containers			\$ 8.10 \$ -		\$ 5.18			2		1							source - SKK calculated from first principles
C.4.06 Style-general Reference (S.2.07 incontaining)	C.4.03 Hould materials to Daris Comp. in 20 ft containor (22.2 m³/containor)								1									source - calculated from first principles
C4.06 By device the property of the property o	C.4.04 Haul waste to Roberts Bay jetty in 20 ft, container (33.2 m²/container)																	
Authors Author	C.4.05 Ship demolition waste from Roberts Bay to Hay River								0									
Co.07 Load revisable terms askides each 3 5 123-41 5 5 61-67 2	C.4.06 Haul one skid to Doris Camp	each							1	1								
Control Cont	C.4.07 Load reusable items on skids	each	3	\$ 123.41 \$ -	\$ 61.75	\$ 61.67 2			1		1							
Control Cont	Foods																	
C.5.02 Load, hauf, dump, place: I truck with + 0.5 km hauf distance		2	175	\$ 31.70 \$ 20.0	3 \$ 171	\$ 1.06 4			1		1							
Codd Description Codd								+ +	1 2	1	1		1					
Excavate: Spoil locally, no trucks								+ +		1								
Regrade surface - rough grading, D7	C.5.04 Excavate: Spoil locally, no trucks							1 1										
C.5.06 Reslope Stockples - D7 Reslope St									1	1								source - RSMeans
C5.07 Relocate core box pallet (<0.5 km)	C.5.06 Reslope Stockpiles - D7	m³		\$ 3.17 \$ -		\$ 2.22			1	1								
C.5.09 Drill, blast Quarry C.5.10 Track pack using loaded rock truck M² 100 \$ 2.05 \$ 0.66 \$ 1.39 \$ 1 1 \$ 526.32 \$ 0.66 \$ 1.39 \$ 1 1 \$ 526.32 \$ 0.66 \$ 1.39 \$ 1 1 \$ 526.32 \$ 0.66 \$ 1.39 \$ 1 1 \$ 1 1 1 \$ 526.32 \$ 0.66 \$ 1.39 \$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	C.5.07 Relocate core box pallet (<0.5 km)	ea.									1							
C.5.10 Track pack using loaded rock truck Sealing (loose rock) Track pack using loaded rock truck Mr											1	1						source - RSMeans
C.5.11 Scaling (loose rock) C.5.12 Load, haul, dump place: 2 trucks with <1.0km haul distance m³ 75 \$ 12.04 \$ - \$ 3.66 \$ 8.39 C.5.13 Seafing/Fertilizing: By hand, high application rate m° 320 \$ 0.77 \$ 0.24 \$ 0.53 \$ - 3 C.5.14 Summer identification of low-lying areas day 0.08 \$ 6,543.52 \$ 100.00 \$ 2,243.52 \$ 4,200.00 1 1 1 1 1 C.5.15 Remove culvert and create swale m 5 \$ 87.05 \$ - \$ 50.05 \$ 37.00 2 0.5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							5	0.5							1			
C.5.12 Load, haul, dump place: 2 trucks with <1.0km haul distance m³ 75 \$ 12.04 \$ - \$ 3.66 \$ 8.39			100						1 .		,		1					source - SRKjm estimate
C.5.13 Seeding/Fertilizing: By hand, high application rate	C.5.11 Scaling (10059 fOCK) C.5.12 Lood houl dump place: 2 trucks with <1.0km houl distance		75						2 2	1	1		2					
C.5.14 Summer identification of low-lying areas day 0.08 \$ 6,543.52 \$ 100.00 \$ 2,243.52 \$ 4,200.00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								+		+ '	<u> </u>							
C.5.15 Remove culvert and create swale Im 5 \$ 87.05 \$ - \$ 50.05 \$ 37.00 2 \$ 0.5 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$								1	U	1				0.17				
									- 1		1			0.17				
C.6.02 Band together core pallets	Other	ım	5	φ 07.05 \$ -	φ 50.05	φ 31.00 2		0.5	1		1							
C.6.02 Band together core pallets	C.6.01 Sample HC contaminated soils / confirmatory samples							1										Surface grab sample/ hand auger / Source - SRK estimate
	C.6.02 Band together core pallets	each	12	\$ 9.49 \$ -	\$ 9.49	\$ - 2		0	0		0							
task duration	C.6.03 Construction of Vent Raise Seal	LS	0.042	\$ 12,064.56 \$ 3.000.0	0 \$ 8,076.96	\$ 987.60 3		1	0.5		0.5							\$14,000 LS based on project experience; material cost estimated to bring total to \$14k; estimated 2 day
		20		. , , , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. 2,2.2.00			1 '		1	2.0							task duration

Biston, CountCost final C. (COSCOS P. N. M. 2011 par

Table 6. Relocation Unit Rates

Hauling Distances		
Boston to Doris	61 km	One Way
Boston to Roberts Bay	64.4 km	One-Way

C.4.03 - Productivity of hauling	hulk mater	als from Be	estan an winter read to Daris	
C.4.03 - Productivity of Hauling	buik mater	ais iroili bu	District of whiter road to borns	
By Skid - SnowCAT (equivalent to D7)			Note: Cost of winter road not included	
Equipment Cost	\$ 166.5	0 per hr.	Includes fuel	
Labour Cost	\$ 71.3	2 per hr.		
Average speed		9 km/hr.	Sleds assumed as being available on site	
Hauling capacity		2 skids	One container per skid	
Cargo capacity	33	.2 m ³	Standard 20 ft. container	
Space utilization ratio	C	.7		
Load	46.	48 m ³	Cargo Capacity x # of Containers x Space Utilization Ratio	
Distance:		61 km		
Time Required 1 round trip:	14.	D6 hrs.	Includes 0.5hr unloading time	
Productivity:	3.	31 m ³ / hr.		

C.4.04 - Productivity of hauling	bulk ı	material	s from Bosto	n on winter road to Roberts Bay
By Skid - SnowCAT (equivalent to D7)				Note: Cost of winter road not included
Equipment Cost	\$	166.50	per hr.	Includes fuel
Labour Cost	\$	71.32	per hr.	
Average speed		9	km/hr.	Sleds assumed as being available on site
Hauling capacity		2	skids	One container per skid
Cargo capacity		33.2	m^3	Standard 20 ft. container
Space utilization ratio		0.7		
Load		46.48	m^3	Cargo capacity x # of Containers x Space Utilization Ratio
Distance:		64.4	km	
Time Required 1 round trip:		14.81	hrs.	Includes 0.5hr unloading time
Productivity:		3.14	m³/ hr.	

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Table 7. Structures

Demolition Bulking Factors	
Tents - Empty	1.3
Wood Structures - Empty	1.5
Wood Structures - w/ Interior Wall Allowance	2
Steel Structures - Empty	1.5
Steel Structures - w/ Interior Wall Allowance	2
Mechanical Equipment	1.1
Liners	3
Pipelines	3

Structure Volumes

Accommodation Complex	
Accommodation Complex Remarks of the following structure of the following s	
Accommodation Complex Recreation Tent 1 5.1 4.5 23.0 2.5 0.01 0.3 6 0.05 0.48 0.9 1.5 9 11.58 Foot Print AutoCAD, height in Sile Office 1 1 12.2 5.1 6.2 2.5 0.15 0.3 5.1 0.3 13.0 18.0 18.3 5.0 100.81 Foot Print AutoCAD, height in Capture Complex Recreation Tent 1 1 2.5 4.1 6.2 2.5 0.15 0.3 5.1 0.3 13.0 18.0 18.7 15.0 100.81 Foot Print AutoCAD, height in Capture Complex Recreation Tent 1 1 2.5 5.1 6.2 2.5 0.15 0.3 5.1 0.3 13.0 18.0 18.7 15.0 100.81 Foot Print AutoCAD, height in Capture Complex Recreation Tent 1 2 1 5 6.5 0.5 0.2 7.5 0.15 0.3 5.1 0.3 12.5 17.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.	ce
Site Office	
Geotech Tent	kness est. from photo
Core Processing Facility	kness est. from photo
Core Splitter	kness est. from photo
Core Spilliter	kness est. from photo
Muster Station	kness est. from photo
Heating systems liner	kness est. from photo
Maintenance Shop Complex Maintenance Shop 1 18 12.2 219.6 0 0.05 0 19.2 0.05 0.0 0.0 17.2 17 25.87 Foot Print AutoCAD, height this Powerhouse 1 12.2 5 61.0 2.5 0.1 0.3 6 0.3 8.6 18.3 22.0 49 97.72 Foot Print AutoCAD, height this Powerhouse 1 12.2 5 61.0 2.5 0.1 0.3 6 0.3 8.6 18.3 22.0 49 97.72 Foot Print AutoCAD, height this Powerhouse 1 12.2 5 61.0 2.5 0.1 0.3 6 0.3 8.6 18.3 22.0 49 97.72 Foot Print AutoCAD, height this Powerhouse 1 36.5 12.8 40.9 2.5 0.1 0.3 5 0.3 6.8 12.3 13.5 33 48.79 Foot Print AutoCAD, height this Powerhouse 1 36.5 12.8 40.9 2.5 0.1 0.3 5 0.3 6.8 12.3 13.5 33 48.79 Foot Print AutoCAD, height this Powerhouse 1 4.0 2 8.0 1.5 1 0.0 0.0 0.0 0.0 18 19.80 Estimated 1.0	kness est. from photo
Shop Sheds (survival, elec. Etc.) 1 23 3.75 86.3 2.5 0.1 0.3 3.75 0.1 13.4 25.9 8.6 48 71.81 Foot Print AutoCAD, height this Powerhouse 1 12.2 5 61.0 2.5 0.1 0.3 6 0.3 8.6 18.3 22.0 49 97.72 Foot Print AutoCAD, height this Powerhouse 1 19.2 5.6 61.0 2.5 0.1 0.3 5 0.3 6.8 12.3 13.5 33 48.79 Foot Print AutoCAD, height this Powerhouse 1 36.5 12.8 467.2 0 0.01 0 20.1 0.05 0.0 0.0 36.7 37 55.04 Foot Print AutoCAD, height this Powerhouse 1 36.5 12.8 467.2 0 0.01 0 20.1 0.05 0.0 0.0 36.7 37 55.04 Foot Print AutoCAD, height this Powerhouse 1 4 2 4 2 8.0 1.5 1 18.0 0.0 0.0 36.7 37 55.04 Foot Print AutoCAD, height this Powerhouse 1 48.9 0.05 0.0 0.0 0.0 36.7 37 55.04 Foot Print AutoCAD, height this Powerhouse 1 48.9 0.05 0.0	
Powerhouse	kness est. from photo
Transformer Building	kness est. from photo
Crusher Crusher Enclosure 1 36.5 12.8 467.2 0 0.01 0 20.1 0.05 0.0 0.0 36.7 37 55.04 Foot Print AutoCAD, height this Hopper/Crusher Parts 1 4 2 8.0 1.5 1 18.0 0.0 0.0 0.0 18 19.80 Estimated	kness est. from photo
Hopper/Crusher Parts	kness est. from photo
Water Treatment Water Intake to Portal & Camp 1 607 0.05 30.4 0.05 1 60.7 0.0 0.0 61 182.21 Lengths from ACAD	kness est. from photo
Sewage Supply Pipelines	
Did Sewage Treatment Bidg. 1 5.5 6.3 34.7 4 0.15 0.3 7.5 0.3 14.2 10.4 12.4 37 55.40 Foot Print AutoCAD, height this New Treatment System (5) 5 12 2.5 30.0 2.5 0.15 0.3 2.5 0.15 10.9 9.0 4.5 122 182.81 Foot print AutoCAD, height this Docks Spyder Lake 1 4 3 12.0 0 0 0.5 0 0 0.0 0	
New Treatment System (5) 5 12 2.5 30.0 2.5 0.15 0.3 2.5 0.15 10.9 9.0 4.5 122 182.81 Footprint: ACAD	
Helipads Helipads (3) 3	kness est. from photo
Docks Spyder Lake	
Docks Spyder Lake	kness est. from photo
Stickleback boardwalk	
Bridge E of Stickleback	
Incinerator	kness est. from photo
Mobile Equipment Miscellaneous Eq. 5 1.5 2 3.0 0 0 1.5 0.0 0 0.0 4.5 0.0 23 33.75 Primary Tank Farm Large Above Ground Tanks 6 4.5 0.0 5 0.05 0.05 0.05 2.3 0.0 0.0 14 20.25 Foot Print AutoCAD, height this Medium Above Ground Tanks 2 3 0.0 5 0.05 0.05 0.05 1.5 0.0 0.0 3 4.50 Foot Print AutoCAD, height this Print AutoCAD, height	
Primary Tank Farm	kness est. from photo
Medium Above Ground Tanks 2 3 0.0 5 0.05 0.05 0.05 0.05 0.05 0.05 0.00 3 4.50 Foot Print AutoCAD, height this Heating System Tanks 7 1 0.0 5 0.05 0.05 0.05 0.05 0.05 0.0 0.0 4 5.25 Quantity breakdown shown be Containment Liner 1 33 25 825.0 0.005 0.005 0.00 4.1 0.0 4 12.38 ACAD	•
Heating System Tanks 7 1 0.0 5 0.05 0.05 0.05 0.05 0.05 0.0 0.0 4 5.25 Quantity breakdown shown be Containment Liner 1 33 25 825.0 0.005 0.005 0.0 4.1 0.0 4 12.38 ACAD	kness est. from photo
Containment Liner 1 33 25 825.0 0.005 0.0 4.1 0.0 4 12.38 ACAD	kness est. from photo
Power Plant Containment Green Storage Tank 2 2.5 1.5 3.8 1.5 0.0	ow, size estimated
Containment Liner 1 4 3 12.0 0.005 0.0 0.1 0.0 0 0.18 Estimated	
Settling Pond #1 Containment Liner 1 20 20 400.0 0.005 0.0 2.0 0.0 2 6.00 Footprint: ACAD	
Settling Pond #2 Solid Waste 0.0 0.0 0.0 0.0 0 0.00 Estimated from photo	
Soil Treatment Facility 45 gallon drums 100 0.6 0.15 0.042 0.0 0.0 4 6.36 Estimated from photo	
Containment Liner 1 16 23 368.0 0.005 0.00 1.8 0.0 2 5.52	
Drill Cutting Settling Pond Geotextile or liner 1 30 20 600.0 0.005 0.0 3.0 0.0 3 4.50	
Drill Sites Top of Casing 545 0.9 0.09 0.1 0.01 0.0 0.0 3 9.13	
Core Storage Road	ume
Mine Openings Portal Fence 1 61.5 0 0.0 1.2 0.01 1.5 0.0 0.0 1 2.21 Estimated from photo	
Vent Raise enclosure 1 5 5 25.0 2.5 0.1 0.15 5 0.15 5.0 3.8 3.8 13 18.75 Estimated from photo	
Other (V-notch weir, sampling	
Other structures points, thermistor housing boxes, 1 20 4 80.0 2.5 0.1 0.3 4 0.1 12.0 24.0 8.0 44 66.00 Based on site photos, assume	areas
other sheds)	
TOTAL: 1,947.9	

Demolition Preparation										
			D	ecommissio	n	Heating	Hazardous	Special		
Area	Structure	# of Units	Electrical	Heating System	Plumbing System	Tanks	Material Vol Estimate (L)	Itom	Special Item Description	Source
Accommodation Complex	Recreation Tent	1				1	0			Estimated from aerial photo
	Site Office	1				0	1			Estimated from aerial photo
	Geotech Tent	1				1	10			Estimated from aerial photo
	Core Shack/Splitter	1				2	10			Estimated from aerial photo
	Muster Station	1				1	4			Estimated from aerial photo
	Portable Trailers	12	1	1	1	0	25			Estimated from aerial photo
Maintenance Shop Compl.	Maintenance Shop	1	0	0	0	0	60			Estimated from aerial photo
	Shop sheds	4	1			1	25			Estimated from aerial photo
	Powerhouse	1	1			0	50			
	Transformer Building	1	1			0	100			
Crusher	Crusher Enclosure	1	0	0	0	1	20			
Water Treatment	New Facility	5	1	0	0	0	25	1	Sludge/Solid Waste	Estimated
	RBC	1					25	1	Sludge/Solid Waste	Estimated
Incinerator	Incinerator	1	0	0	0	0	0	10	Ashes	Ashes in Liters, estimates
Mobile Equipment	Misc. Equipment on site	5	0	0	0	0	60	10	Residual Fuel (in each)	Estimated from aerial photo
Primary Tank Farm	Above Ground Tanks	8					25	40	Residual Fuel (in each)	Fuel in Liters, estimated
	Heating System Tanks	7					25	10	Residual Fuel (in each)	Fuel in Liters, estimated
Power Plant Containment	Green Storage Tanks	2					10	5	Residual Fuel (in each)	Fuel in Liters, estimated
Soil Treatment Facility	Empty 45 gal drums	100						0.5	Residual Fuel (in each)	Fuel in Liters, estimated
Core Boxes	Total box pallets	520								AutoCAD
	Box pallets located on tundra	400								Estimated based on photos + contingency
TOTAL:			,	,	,	7	475	,		

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Table 8. Reclamation Areas

Reclamation Areas

Work Area	Location	Total Area (m²)	Area Sacrificed (m²)	Area Regraded (m²)	Area Requiring Fill (m²)	Cocoa- matting Area (m²)	Total Area (m²)	Source/Comment
Camp Structures	Old Water Treatment Foundation Pad	460		460				ACAD/aerial site photo
	Helipads	150		150				ACAD/aerial site photo
Camp Surface Infrastructure	Camp Complex Foundation Pad	29,953	29,953	2,995			29,953	Excludes landfarm/core storage areas; assumed 10% requires regrading
	Road to Spyder Lake	773	773	773		0	0	ACAD
	Road to Airstrip	1,763	1,763	1,763				ACAD
	Airstrip	10,444	10,444	5,222				ACAD; assumed 50% required regrading
	Core Storage Road	142	142	142				ACAD
	Drill Road	306	306	306				ACAD; assumed 50% required regrading
Other Areas	Permafrost Remediation Areas	11,184			559	559	11,184	ACAD, assumed 5% required 0.3m fill in low areas, 5% required matting
	Vegetation Die-Back - Drill Road	17,795			890	890	17,795	ACAD, assumed 5% required 0.3m fill in low areas, 5% required matting
	Vegetation Die-Back - Core Storage Road	990			495	50	990	ACAD, assumed 50% required 0.3m fill in low areas, 5% required matting
	Vegetation Die-Back - Grey Water Dis.	5,398			270	270	5,398	ACAD, assumed 5% required 0.3m fill in low areas, 5% required matting
	Drill Sites	9,000			9,000	450	9,000	9 site included each 1000 sq.m.
	Boston Ore Stockpiles	6,077	6,077	3,039			6,077	ACAD; assumed 50% required regrading

Earthwork Volumes/Quantities

Bulking Factors	
Soil/Rock Pad	1.2
Cover shrinkage factor	1.1

Work Area	Item	Qnty	Length (m)	` '	Height (m)	Side Slope (x:1)	Area (m²)	In-situ Volume (m³)	Loose Volume (m³)	Source / Comments
Core Storage Road	Excavate Culvert	1	5.5	0.5	0.9	1	1.26	7		
Missa	Dead CH Dead's a	1	40	40	0			004	000	ACAD antiquetal
Mine Openings	Backfill Decline	1	18	12	3		070	324		ACAD estimated
Primary Tank Farm	Excavate Bedding Material				0.5		676	338	406	ACAD antimated
De la Blant Fort Containment	Regrade area				0.5		810	50		ACAD estimated
Power Plant Fuel Containment	Excavate Bedding Material				0.5		100	50		Estimated
0.41	Regrade area		10		0.5		125	70		Estimated
Settlement Pond #1	Excavate Settled Material		16	9	0.5		144	72		ACAD estimated
	Regrade area			_			750			ACAD estimated
Settlement Pond #2	Excavate Settled Material		12	9	0.5		108	54		ACAD estimated
	Regrade area						690			ACAD estimated
Soil Treatment Facility	Soils				0.5		300	150		ACAD estimated; assumed 1/2 passing
	Regrade area						440			ACAD estimated
Drill Cutting Settling Pond	Cutting volume				0.5		560	280		ACAD/aerial site photo
	Regrade area						930			ACAD estimated
Ore Stockpiles	Original stockpile footprint				1.7		6077	10331	12397	ACAD estimated. Volume of ore material from SRK 2008 Boston annual inspection (27,000 tonnes) and assuming a bulk density of 2 tonnes/m ³
	Consolidated Stockpile foot print				6.7		2026	13500		Entire volume (13500 m ³) consolidated to 1/3 of existing footprint.
	Relocated Volume (used for construction)							3169	3803	scraped up from pads and airstrip (estimate by SRK)
	Relocated volume (consolidation of piles)							6887	8265	pushed into the large pile
	Cover Volume				0.3		2228	668	802	
	Liner Area						2330			Liner area increased by 15% to account for wastage and conversion between 3D and 2D projection.
Landfill Closure	Bedding (crushed rock) (0.3m on each side of liner)				0.6		700	420	504	
	Liner						805			
	Run-of-quarry cover				0.5		700	350	420	

December 2012

Appendix B Doris North Closure Cost Estimate

Summary of Costs

	Cost frounded	to the nearest thousand
Work task	Cost (rounded	to the nearest thousand)
	By task	By Facility
irect Cost Items . Transportation infrastructure (roads, airstrips, docks)		\$493,00
Jetty	\$11,000	
Fuel Transfer Access Road	\$8,000	
Beach Laydown Area		
All-weather Airstrip		
Helicopter Support Facilities		
Doris Windy Road		
Secondary Road Area Tail Lake Access Road		
. Borrow Areas	\$10,000	\$129,00
Overburden Dump RE	\$26,000	
Overburden Dump Q2		
Portals/Adits		\$52,0
Portal and Underground Works		
Vent Raise	\$22,000	
Non-Process Ponds & Reservoirs		\$63,0
Temporary Water Management Pond		
Sedimentation/Pollution Control Pond Water Management	\$17,000	\$1,179,0
Water Management Water Managemen	\$1,179,000	
Dumps , Stockpiles, Landfills	. 31,179,000	\$720,0
Waste Rock Pile	\$576,000	
Ore Pile		
Tail Storage Facility (TSF)	, ,,,,,	\$485,0
Frozen Core Dam	\$485,000	
Drainage / Diversion Channels		\$22,0
Run-off Diversion Berm		
Sedimentation Bern	,	
Drainage channe	\$16,000	
Facilities Demolition	¢254.000	\$1,830,0
RBTF Q1TF	,	
Mechanical Shop Complex		
Waste Management Facility		
Laydown Area		
Communications Tower		
Orbit Drill Shop		
Explosives Mixing Facility		
Equipment Laydown Area		
Material Laydown Area		
Ammonium Nitrate Storage Area		
Geotech Drill Shop		
Westarc Drill Shop		
Land Farm		
Batch Plant Pac		
Burn Par		
Crushei		
Accommodation Complex		
Tank Farm		
Permanent Power Generato	,	
Temporary Power Generato		
Sewage Treatment Plan		
Fire Water Storage Tank		
Muster Station		
Warehouse/Core Shack		
Offices & Mine Dry Complex		
Underground Wash Bay		
Swick Shop		
Water Intake Structure and Pumping Facility		
Underground Support Mechanical Shop		
Fresh Water Pipeline		
Sewage Discharge Line		
Sumps		
Camp Pade	\$36,000	
Ventilation and Heating Facilities		
Fuel Storage Area		
Explosives Storage Facility		
Doris Mountain Communication Towe		40.05
. Off-site Shipping for Disposal . Off-Site Disposal Fees	\$3,998,000	
	\$89,000	
otal Direct Costs	42.2	\$9,060,0
. Mobilization & Demobilization	\$712,000	
Engineering and Consultants Services	\$282,000	\$282,0
General and Administration costs	\$2,082,000	\$2,082,0
. Contingency	\$754,000	\$754,0
Don't alances Manifestore	\$200,000	\$200,0
	Ş200,000	
. Post-closure Monitoring otal Indirect Costs otal Closure Cost	\$200,000	\$4,030,00 \$13,090,00

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4 1 6 remove and out liner into manageable pieces 13,152.0 C.3.02 50.14 \$ 1,872.84 lane and geote Does not includ 4 1 7 because the containers for shipping off-site 118.4 C.4.01 58.16 \$ 965.29 cover 4 1 1 8 because the containers to Roberts Bay laydown 118.4 C.4.04 52.31 \$ 272.94 cover 4 1 9 because the containment bernes 3,012 C.5.05 52.38 \$ 7,161.23 cover 4 1 1 0 regrade area for positive dinninge 4,384.0 C.5.05 52.38 \$ 10,426.03 cover 4 2 1 Batch Plant Pad 6 collect all debris 740.3 C.3.10 50.31 \$ 94.99
4 1 7 boad waste into containers for shipping off-site 118.4 C.4.01 \$8.16 \$ 965.29 cover 4 1 8 1 8 haud containers to Roberts Bay laydown 118.4 C.4.04 \$2.31 \$ 272.94 4 1 9 head containment berms 3,011.2 C.5.05 \$2.38 \$ 7,161.23 4 1 1 0 regrade area for positive drainage 4,344.0 C.5.05 \$2.38 \$ 10,426.03 4 2 1 Batch Plant Pad 6 collect all debris 740.3 C.3.10 \$0.31 \$ 94.99
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WM-002 4 2 1 Batch Plant Pad collect all debris 740.3 C.3.10 \$0.13 \$ 94.99
4 2 2 load waste into containers for shipping off-site 3.0 C.4.01 \$8.16 \$ 24.47
4 2 3 haul containers to Roberts Bay laydown 3.0 C.4.04 \$2.31 \$ 6.92 4 2 4 regrade area for positive drainage 740.3 C.5.05 \$2.38 \$ 1,760.65 WM-003 4 3 1 Bum Pan Collect ashes and place in containers 0.1 C.2.07 \$535.08 \$ 53.51
4 3 2 Dimmartle (welding crew) 1.0 C.3.08 546.52 \$ 446.92 \$ 45
4 3 4 haul containers to Robertis Bay laydown 0.2 C.4.04 52.31 \$ 0.57 warry #2 Q2-01 5 1 1 Cruisher Dismantile hopper/crusher pants for transport 2.0 C.1.11 \$2,844.40 \$ 5,688.80
Q2-001 5 1 1 Crusher Dismanile hopper(crusher parts for transport 2.0 C.1.11 \$2,844.40 \$5,888.80 5 1 2 Load equipment into containers for transport (lo Roberts Bay) 99.6 C.4.04 \$2.31 \$ 229.67 assuming they! 5 1 3 collect all debris 2,668.0 C.3.10 \$0.13 \$342.34
5 1 4 load waste into containers for shipping off-site 2.7 C.4.01 \$8.16 \$ 21.76 5 1 5 haul containers to Roberts Bay laydown 2.7 C.4.04 \$2.31 \$ 6.15
5 1 6 regrade area for positive drainage 2,668.0 C.5.05 \$2.38 \$ 6,345.04 Q2-002 5 2 1 Overburden Dump resispe to 93H1V 8,781.3 C.5.06 \$3.17 \$ 27,845.02 assumed 30% of the control of th
5 2 2 grade top for positive drainage 18,440.8 C.5.05 \$2.38 \$ 43,855.91 assumed 60% of 5 2 3 install erosion protection measures (coconut matting) 2,634.4 C.5.08 \$4.05 \$ 10,677.42 assumed 10% of 5 2 4
Q2-003 5 3 1 Treated Sewage Discharge Areas Fill in low-lying areas (assumed sourced within 0.5km) 69.1 C.5.02 \$17.47 \$ 1,207.34 5 3 2 Revegetate: Supply and place cooos matting \$3.2 C.5.08 \$4.05 \$ 215.51
5 3 3 Revegetate: Seed/Fertilize, by hand, high application rate 53.2 C.5.13 50.77 \$ 40.90 ris Camp \$1,696,957
DC-001 6 1 1 Accommodation Complex Decommission (electrical, mechanical, plumbing) 18.0 C.1.05 \$558.88 \$ 10,239.84 6 1 2 disconnect trailers and prep for moving (remove boards/piping, elc.; wrap in plastic) 65.0 C.1.08 \$1,045.76 \$ 67,974.40
6 1 4 demolish cabins 319.1 C3.05 \$10.61 \$ 3,385.33
6 1 5 demolish cribbing, stairs, entryweys, etc. 250.3 C.3.05 \$10.61 \$ 2,655.79 smoke tent, hal 6 demolish arctic corridor 132.5 C.3.05 \$10.61 \$ 1,405.80
6 1 7 collect all debris 38,0 9 C.3.10 50.13 5 48,87 6 1 8 load waste into containers for hipping off-site 62,31. C.4.01 58,16 \$ 5,081,42 6 1 9 haul containers to Roberts Bay laydown 623.1 C.4.04 \$2,31 \$ 1,436,81
6 1 10 regrade area for positive drainage 21,050.0 C.5.05 \$2.38 \$ 50,061.11 DC-002 6 2 1 Tank Farm Drain tanks into portable fuel storage (EnviroTanks) 5.0 C.2.03 \$227.84 \$ 1,139.20
6 2 2 Decommision Fuel Transfer Fascilities 5.0 C.1.02 \$398.36 \$ 1,991.80 6 2 3 Wash tanks 5.0 C.2.04 \$780.75 \$ 3,903.75
6 2 4 Operate ollwater separator 1.9 C 2.08 \$27.56 \$ 52.46 6 2 5 Disconnect piping and controls 5.0 C 1.02 \$398.36 \$ 1,991.80
6 2 6 Dismantle tanks and out into manageable pieces 7.0 LS \$50,000.00 \$ 350,000.00 assumed cost p 6 2 7 prepare pieces for transportation 22.8 C4.01 \$8.16 \$ 185.70
6 2 8 haul cut metal to Roberts Bay laydown 22.8 C.4.04 \$2.31 \$52.51 6 2 9 remove and stockple liner protection cover 3,360.0 C.5.04 \$2.56 \$8,512.35 6 2 10 clean liner 5,500.0 C.2.10 \$0.35 \$1,008.50
6 2 11 remove and out liner into manageable pieces 16,500.0 C.3.02 \$0.14 \$ 2,349.60 liner and geotee 2 12 load waste into containers for shipping off-site 176.6 C.4.01 \$8.16 \$ 1,440.15 Liners, geotexti
6 2 13 haul containers to Roberts Bay laydown 176.6 C.4.04 \$2.31 \$ 407.22 6 2 14 level containment berms 962.0 C.5.05 \$2.38 \$ 2,287.83
6 2 15 regrade area for positive drainage 4,927.7 C.5.05 \$2.38 \$ 11,719.09
DC-003 6 3 1 Permanent Power Generator Decommission (electrical) 8.0 C.1.06 5599.98 \$ 4,799.83
6 3 2 Disconnect containers and prep for shipping off-site 8.0 C.1.08 \$1,045.76 \$ 8,366.08 6 3 3 haul containers to Roberts Bay laydown 265.6 C.4.04 \$2.31 \$ 612.45
6 3 2 Disconnect containers and prep for shipping off-site 8.0 C.1.08 \$1,045.76 \$ 8,366.08 6 3 3 haul containers to Roberts Bay laydown 265.6 C.4.04 52.31 \$ 612.45 2,20m stacks: 6 3 4 dismanfle stacks 40.0 C.3.13 \$113.92 \$ 4,556.80 high = 5 contail 6 3 5 prep stacks for shipping off-site 40.0 C.3.12 \$421.16 \$ 16,848.40
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Work Area Code Iter	m Task	Sub	Activity Task	Quantity Cost	Unit Cost A	ctivity Total	Subtotals Source / Comments
	7 6 8 6		Fire Water Storage Tank decommission and disconnect electrical and plumbing	3.0 C.1.03	\$1,166.24 \$ \$1,045.76 \$	3,498.72 1,045.76	Subtotals Source / Comments
	6 6	S 3	haul container to Roberts Bay laydown remove tank insulation	66.4 C.4.04 53.0 C.3.15	\$2.31 \$ \$646.73 \$	153.11 34,262.54	
	6 6	6 6	prepare pieces for transportation (includes water tank for Boston)		\$242.92 \$ \$8.16 \$	714.21 71.93 20.34	
	6 6	6 8	3 Collect Debris	73.2 C.3.10	\$2.31 \$ \$0.13 \$ \$8.16 \$	9.39 638.31	
	6 6	7 1	Haul debris to Roberts Bay Muster Station demolish tent structure	78.3 C.4.04 227.3 C.3.05	\$2.31 \$ \$10.61 \$	180.49 2,411.65	
	6 7 6 7 6 7	, :	3 Collect Debris	27.3 C.3.05 90.9 C.3.10 42.7 C.4.01	\$10.61 \$ \$0.13 \$ \$8.16 \$	289.40 11.67 348.46	
	6 7	7 5	Haul debris to Roberts Bay Warehouse / Core Shack demolish tent structure	42.7 C.4.04 269.5 C.3.05	\$2.31 \$ \$10.61 \$	98.53 2,859.06	
	6 8	3 3	Collect Debris	186.2 C.3.05 720.1 C.3.10	\$10.61 \$ \$0.13 \$	1,975.64 92.39	
	6 8 6 8	3 5	5 Haul debris to Roberts Bay	350.3 C.4.01 350.3 C.4.04 796.8 C.4.04	\$8.16 \$ \$2.31 \$ \$2.31 \$	2,856.82 807.79 1,837.34	
DC-009	6 9	9 1	Offices & Mine Dry Complex Decommission (electrical, mechanical, plumbing) disconnect trailers and prep for moving (remove boards, cladding, etc.; wrap in plastic)	3.0 C.1.05 17.0 C.1.08	\$568.88 \$ \$1,045.76 \$	1,706.64 17,777.92	
	6 9			564.4 C.4.04 219.5 C.3.05	\$2.31 \$ \$10.61 \$	1,301.45 2,328.60	Demolish Office Buillidng, Minedry, and
	6 9		S collect all debris	998.2 C.3.05 1,981.2 C.3.10	\$10.61 \$ \$0.13 \$	10,590.58 254.21	Admin Buillidng
	6 9	9 8	haul containers to Roberts Bay laydown	2,325.6 C.4.01 2,325.6 C.4.04	\$8.16 \$ \$2.31 \$	18,965.19 5,362.56	
DC-010	6 9 6 10 6 10) 1	Temporary Water Management Pond discharge contained water to Tail Lake		\$2.38 \$ \$5,000.00 \$ \$0.14 \$	16,433.36 5,000.00 470.92	
	6 10) :	load waste into containers for shipping off-site haul containers to Roberts Bay laydown	50.6 C.4.01 50.6 C.4.04	\$8.16 \$ \$2.31 \$	412.26 116.57	
	6 10) 6	regrade area for positive drainage	2,221.3 C.5.12 5,617.0 C.5.05	\$12.04 \$ \$2.38 \$	26,749.40 13,358.35	1 400 1 112
	6 11 6 11 6 11	1 2		100.0 C.3.16 706.8 C.5.03 1,446.0 C.5.05	\$99.59 \$ \$23.29 \$ \$2.38 \$	9,959.00 16,460.19 3,438.88	assuming 100m length?
	6 12 6 12	2 2	Underground Wash Bay demolish tent structure Collect Debris	776.9 C.3.05 155.4 C.3.10	\$10.61 \$ \$0.13 \$	8,242.55 19.94	
	6 12 6 12 6 13	2 4		15.5 C.4.01 15.5 C.4.04 859.2 C.3.05	\$8.16 \$ \$2.31 \$ \$10.61 \$	126.33 35.72 9,115.56	
	6 13	3 2	2 Collect Debris	229.1 C.3.10	\$0.13 \$ \$8.16 \$	9,115.56 29.40 143.96	
	6 13 6 14	3 4 1 1	Haul debris to Roberts Bay Water Intake Structure and Pumping Facility remove water intake line from Doris Lake	17.7 C.4.04 25.0 C.3.03	\$2.31 \$ \$9.78 \$	40.70 244.53	
	6 14 6 14	1 3	3 prep containers for shipping off-site	2.0 C.1.03 2.0 C.1.08 1.0 C.1.01	\$1,166.24 \$ \$1,045.76 \$ \$66.89 \$	2,332.48 2,091.52 66.89	
	6 14	1 5	6 clean TidyTank and prep for shipping off-site run oil-water separator	1.0 C.2.02 1.0 C.2.08	\$20.82 \$ \$27.56 \$	20.82 27.56	Assumed there is only one tank
	6 14	1 8	haul containers to Roberts Bay laydown	66.4 C.4.04	\$1,045.76 \$ \$2.31 \$	1,045.76 153.11	
	6 14 6 14 6 14	1 10	Load debris into containers for transport (to Roberts Bay)	2,226.2 C.3.10 20.0 C.4.01 20.0 C.4.04	\$0.13 \$ \$8.16 \$ \$2.31 \$	285.64 163.10 46.12	
DC-015	6 15 6 15	5 1	Sedimentation/Pollution Control Pond disconnect piping and electrical wiring, remove sump pumps remove and out liner into manageable pieces (Sedimentation Pond only)	2.0 C.1.05 10,200.0 C.3.02	\$568.88 \$ \$0.14 \$	1,137.76 1,452.48	Liner+Geotextile
	6 15	5 4	B load waste into containers for shipping off-site hauf containers to Roberts Bay laydown	30.6 C.4.01 30.6 C.4.04	\$8.16 \$ \$2.31 \$	249.54 70.56	Liner+Geotextile
	6 15 6 15 6 15	5 6	fip-rap breach for erosion protection decommission RO plant	2,608.2 C.5.05 27.6 C.5.03 4.0 C.1.05	\$2.38 \$ \$23.29 \$ \$568.88 \$	6,202.82 642.76 2,275.52	
	6 15 6 15	5 8	disconnect RO plant containers and prep for shipping off-site haul RO plant containers to Roberts Bay laydown	4.0 C.1.08 132.8 C.4.04	\$1,045.76 \$ \$2.31 \$	4,183.04 306.22	
	6 16 6 16 8 16	3 2	Underground Support Mechanical Shop rical, mechanical (including connections to generator house & transformer) demolish building	3.0 C.1.05 2,281.6 C.3.05 456.3 C.3.10	\$568.88 \$ \$10.61 \$ \$0.13 \$	1,706.64 24,206.86 58.55	
	8 16 6 16 6 16	3 4	load waste into containers for shipping off-site		\$0.13 \$ \$8.16 \$ \$2.31 \$	58.55 6,171.60 1,745.07	
	6 17 6 17	7 2		830.0 C.3.03 4.0 C.1.05	\$9.78 \$ \$568.88 \$	8,118.48 2,275.52	
	6 17 6 17 6 17	7 4	Load debris into containers for transport (to Roberts Bay)		\$0.13 \$ \$8.16 \$ \$2.31 \$	205.30 516.72 146.11	
DC-018	6 18	3 1	Helicopter Support Facilities dismantle helicopter pads and walkway	15.0 C.3.06 84.6 C.3.05	\$2.81 \$ \$10.61 \$	42.15 897.14	Heli Office
	6 18 6 18	3 4	Collect Debris	225.9 C.3.05 154.2 C.3.10	\$10.61 \$ \$0.13 \$	2,396.84 19.79	
	6 18 6 18 6 18	3 6	Haul debris to Roberts Bay	635.9 C.4.01 635.9 C.4.04 1,582.4 C.5.05	\$8.16 \$ \$2.31 \$ \$2.38 \$	5,186.12 1,466.42 3,763.26	
DC-019	6 19) 1	Waste Rock Pile Regrade top surface for positive drainage	13,396.9 C.5.05 13,396.9 C.5.01	\$2.38 \$ \$2.38 \$ \$31.70 \$	31,860.46 424.635.93	
	6 19	9 3	Place 0.3 m thick liner protection layer of crushed rock One Pile Regrade top surface for positive drainage	5,138.3 C.5.03 3,516.4 C.5.05	\$23.29 \$ \$2.38 \$	119,662.26 8,362.70	
	6 20 6 20) :	Place 0.3 m thick liner protection layer of crushed rock		\$31.70 \$ \$23.29 \$	111,458.02 24,567.33	
	6 21 6 21 6 21	1 2		33.6 C.5.05 33.6 C.3.02 0.3 C.4.04	\$2.38 \$ \$0.14 \$ \$2.31 \$	79.91 4.78 0.70	
DC-022	6 22 6 22	2 1	Sewage Discharge Line Flush pipeline prior to decommissioning Cut pipelines into manageable pieces and place in containers for shipping off-site	1.0 C.2.06 1,190.0 C.3.03	\$504.33 \$ \$9.78 \$	504.33 11,639.75	
	6 22 6 22 6 22	2 4	Load debris into containers for shipping off-site	1.0 C.1.05 90.8 C.4.01 90.8 C.4.04	\$568.88 \$ \$8.16 \$ \$2.31 \$	568.88 740.84 209.48	
DC-023	6 23 6 23	3 1	Sedimentation Berm Breach the berm to restore a free drainage path	24.0 C.5.05	\$2.31 \$ \$2.38 \$ \$23.29 \$	57.08 83.84	
DC-024	6 24 6 24	1 1	Sumps decommision sumps 2 remove pumps, pipes, cables, culverts	2.0 C.1.05 2.0	\$568.88 \$ \$2,500.00 \$	1,137.76 5,000.00	
DC-000	6 24 6 25 6 25	5 1	Boddli sump excavation Drainage channel excavate channel rip-rap for erosion protection	28.3 C.5.02 881.8 C.5.04 590.0 C.5.03	\$17.47 \$ \$2.56 \$ \$23.29 \$	493.85 2,260.25 13,740.12	
DC-000 North Dam	6 26	3 1	Camp Pads regrade pads to blend in with topography	15204.4 C.5.05	\$2.38 \$	36,159.10	\$494,598
ND-001	7 1 7 1 7 1	1 2		7,028.0 C.5.09 31,021.1 C.5.16 12.0 C.3.08	\$30.01 \$ \$8.32 \$ \$446.92 \$	210,910.16 257,994.57 5.363.04	
ND-002	7 1 7 1 7 2			614.2 C.5.02	\$17.47 \$ \$2.38 \$	10,728.47	
	7 2 7 2			132.0 C.3.06 132.0 C.4.01	\$2.81 \$ \$8.16 \$	370.62 1,076.46	
Vent Raise VR-001	1	1 1	Vent raise Remove ducks, pipes, and cables	100.0 C.3.16	\$99.59 \$	9,959.00	\$45,756
	8 1		Construct a concrete cap (0.5 m thick reinforced concrete) to seal the top Ventilation and Heating Facilities Decommission and dismantle all ventilation and heating facilities		\$12,064.56 \$	12,064.56	
VR-002	8 1 8 1	2 1		4.0 C.1.05	\$568.88 \$	2,275.52	
	8 1 8 2 8 2 8 2	2 2	Prepare units for shipping off-site Haul units to Roberts Bay	1.0 C.1.08 33.2 C.4.04	\$1,045.76 \$ \$2.31 \$	1,045.76 76.56	
	8 1 8 2 8 2 8 2 8 2 8 3	2 2 2 4 3 1	Pepare units for shipping of-site Haul units to Roberts Bay I Regrade pads for positive diamage Fuel Storage Area Drain and decommission Envision Drain and decommission Envision	1.0 C.1.08 33.2 C.4.04 4,150.0 C.5.05 1.0 C.2.03	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$	1,045.76 76.56 9,869.53 227.84	
VR-003	8 1 8 2 8 2 8 2 8 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Prepare units for shipping off-site Haul units to Roberts 889 Regade pads for positive drainage Fuel Storage Area Drain and decommission Enviro Tank Haul Enviro Tank to Roberts 889 Remove liner and out into manageable pieces Remove liner and out into manageable pieces	1.0 C.1.08 33.2 C.4.04 4,150.0 C.5.05 1.0 C.2.03 33.2 C.4.04 1,230.0 C.3.02	\$1,045.76 \$ \$2.31 \$ \$2.38 \$	1,045.76 76.56 9,869.53	
VR-003	8 1 8 2 8 2 8 2 8 2 8 3 8 3 8 3 8 3 8 3	2 2 2 2 2 4 2 4 3 3 1 3 3 3 3 4 3 5 5 6 3 6 6	Prepare units for shipping off-site 8 Braul units to Roberts Bay 1 Regrade pads for positive drainage Fuel Storage Area Drain and decommission Enviro Tank 2 Haul Enviro Tank to Roberts Bay 3 Remove liner and cut into manageable pieces Load all debris and waste into containers and Haul containers to Roberts Bay Haul containers to Roberts Bay	1.0 C.1.08 33.2 C.4.04 4,150.0 C.5.05 1.0 C.2.03 33.2 C.4.04 1,230.0 C.3.02	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$0.14 \$	1,045.76 76.56 9,869.53 227.84 76.56 175.15	6957 499
VR-003	8 1 8 2 8 2 8 2 8 2 8 3 8 3 8 3 8 3 8 3	22 2 3 22 4 22 4 33 1 33 2 33 3 33 5 33 6	Prepare units for shipping off-site 3 Hall units to Roberts Bay 1 Regrade pads for positive drainage 1 Fuel Storage Area Drain and decommission Enviro Tank 2 Hall Enviro Tank to Roberts Bay 3 Remove liner and cut into manageable pieces 4 Load all debris and waste into containers and 4 Haul containers to Roberts Bay 4 Haul containers to Roberts Bay 4 Haul containers to Roberts Bay	10 C1.08 33.2 C4.04 4,150.0 C5.05 10 C2.03 33.2 C4.04 1,230.0 C3.02 11.1 C4.01 11.1 C4.04 4,150.0 C5.05	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$0.14 \$ \$8.16 \$ \$2.31 \$	1,045.76 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53	\$257,129
VR-003 Doris Windy Road DW-001 DW-002	8 1 8 2 8 2 8 2 8 3 8 3 8 3 8 3 9 1	2 2 2 3 2 3 3 1 3 3 3 3 3 3 3 3 3 3 3 3	Prepare units for shipping of-site of Haul units to Roberts Bay I all units to Roberts Bay I all storage Area Properties of the Storage Area Drain and decommission Environ. A storage Area Properties of Reparate Properties of Repa	1.0 C1.08 33.2 C4.04 4,150.0 C5.05 1.0 C2.03 33.2 C4.04 1,230.0 C3.02 11.1 C4.01 11.1 C4.04 4,150.0 C5.05	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$0.14 \$ \$8.16 \$ \$2.31 \$ \$2.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$	1,045.76 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53	\$257,129
VR-003 Doris Windy Road DW-001 DW-002 DW-003 DW-003	8 1 8 2 8 2 8 2 8 3 8 3 8 3 8 3 8 3 8 3 9 1	22 2 3 1 3 3 4 3 5 3 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Prepare units for shipping of-site of Haul units to Roberts Bay I all all states of Haul units to Roberts Bay I all all states of Haul units to Roberts Bay I all all states of Haul units to Roberts Bay I all all all all all all all all all a	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.2.03 33.2 C.4.04 1,210.0 C.3.02 11.1 C.4.01 11.1 C.4.04 4,150.0 C.5.05 3.0 U.5 1.0 U.5	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.23.1 \$ \$2.31 \$ \$0.14 \$ \$5.16 \$ \$2.31 \$ \$2.31 \$ \$2.38 \$ \$2.38 \$ \$2.38 \$	1,045.76 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53	\$257,129
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005	8 1 8 2 8 2 8 2 8 3 8 3 8 3 8 3 9 1 9 2 9 2 9 5 9 5 9 5	2 2 2 2 2 3 3 3 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Pepare units for happing di-fall All units to Roberts Ray Fuel Storage Area Plant Storage Area Plant Storage Area Plant Storage Area Remove Iner and cut into manageable pieces Load all defirs and waste into containers and Remove Iner and cut into manageable pieces Load all defirs and waste into containers and Haul containers to Roberts Ray Backfill area to prevent permanently permanently and AWR Remove Direct permanently and Remove Archard Cubert Remove Archard Cubert Crown road for postety demanage Quarry A No Closure architects are required Quarry B No Closure architects are required Quarry B No Closure architects are required Plant Storage Facility Remove all explosive magazines Plant Storage Facility Remove all explosive magazines Demoisble entry gates Load all defirs and waste into containers	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.2.03 33.2 C.4.04 1,230.0 C.3.05 111 C.4.04 111 C.4.04 4,150.0 C.5.05 3.0 US 1.0 US - C.5.17	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$22.784 \$ \$ \$2.31 \$ \$ \$2.38 \$ \$ \$227.84 \$ \$ \$ \$2.31 \$ \$ \$ \$0.14 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,045.76 76.56 9.869.53 227.84 76.56 175.15 9.269.53 150,000.00 100,000.00	\$257,129
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005	8 1 8 2 8 2 8 2 8 3 8 3 8 3 8 3 8 3 9 1 9 2 9 2 9 5 9 5 9 5 9 5 9 5	2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Pepare units for shipping of-site of Haul units to Roberts Bay I all Storage Area Page 2 Page	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,210.0 C.3.02 11.1 C.4.01 11.1 C.4.04 4,150.0 C.5.05 3.0 US 1.0 U	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$0.14 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.33 \$ \$5.33 \$ \$5.33 \$ \$5.33 \$ \$5.33 \$ \$5.33 \$ \$5.33 \$ \$5.30,000.00 \$ \$5.30 \$ \$	1,045.76 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00	Including the AWR
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001	8 1 8 2 8 2 8 2 8 3 8 3 8 3 8 3 9 1 9 1 9 2 9 5 9 5 9 5 9 5	2 2 2 2 2 2 2 3 3 1 1 1 1 1 1 1 1 1 1 1	Pepare units for Approp d'Alei Haul units to Roberts Bay Fuel Storage Area Per le Storage Area Per le Storage Area Per le Storage Area Remove Dania and decoministion Environ Bank Haul Enviro Tank to Roberts Bay Remove lenra et au cut into manageable pieces Load all debris and waste into containers and Haul containers not Roberts Bay Backfill area to prevent permanent prondring Remove bridges Remove bridges Remove bridges County A Quany A Quany A Remove bridges Quany A No Closure activities are required Quany B No Closure activities are required Perploseves Storage Facility Remove all explosive magazines Load all debris and waste into containers to Roberts Bay Backfill area to prevent permanent prondring Load and the posterior produce and the posterior produce activities are required Load all debris and waste into containers Load all debris and waste into containers Haul containers to Roberts Bay Regrade area for postative donostances Regrade area for postative donostances Tall Lake Road Remove Doris Creek bridge	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,210.0 C.3.02 11.1 C.4.01 11.1 C.4.04 4,150.0 C.5.05 3.0 U.5 1.0 U.5 1	\$1,045.76 \$ \$2,31 \$ \$2,31 \$ \$2,31 \$ \$5,14 \$ \$5,14 \$ \$5,14 \$ \$5,16 \$ \$2,31 \$ \$5,16 \$ \$5	1,045,76 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 176.91 4.77 207.14 67.67	Including the AWR \$74,862 Remove
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001	8 1 8 2 8 2 8 2 8 3 8 3 8 3 8 3 8 3 9 1 9 1 9 2 9 5 9 5 9 5 9 5	2 2 2 2 3 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Prepare units for shipping of-site Haul units to Roberts Bay Fleat Storage Area Pleat Storage Pleat Storage Pleat Storage Pleat Storage Area Pleat Storage Facility Pleat Storage Facility Pleat Storage Area Pleat Storage Area Pleat Storage Area Pleat Storage Facility Pleat Storage Area Pleat Storage Area Pleat Storage Area Pleat Storage Area Pleat Storage Facility Pleat Storage Area Pleat St	10 C.108 33.2 C.404 4150.0 C.5.05 33.2 C.4.04 1,200.0 C.3.02 11.1 C.4.01 11.1 C.4.04 4,150.0 C.5.05 3.0 IS 1.0 IS - C.5.17 - C.5.17 - C.5.17 - C.5.20 25.4 C.4.01 25.4 C.4.08 2.8.05 8 C.5.05	\$1,045.76 \$ \$ \$2.31 \$ \$ \$2.38 \$ \$ \$2.31 \$ \$ \$ \$2.38 \$ \$ \$ \$2.31 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,045.76 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82	Including the AWR 574,862 Remove Assuming the diameter is 0.4 m and the pipelline runs on the side of the road
Doris Windy Road DW-001 DW-002 DW-002 DW-003 DW-005 DW-005 Secondary Road SR-001	8 1 1 8 2 8 8 2 8 8 2 8 8 2 8 8 8 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 3 3 3 3 3 5 5 5 5 5 5 5 5 5 5	Pepare units for shipping of-site Haul units to Roberts Bay Fluel Storage Area Pepare pads for positive diministry Haul Storage Area Haul Enviro Tank to Roberts Bay Remove Inerra du cut inor manageable pieces Load all debris and vesse into containers and Haul containers Roberts Bay Backfill area to prevent permanent prodring Remove Archael Cutes AWR AWR Remove Inerra du Crown road for positive diministry Remove Archael Cutes Covan road for positive diministry Covan road for positive are required Quarry A No Closure activities are required Quarry B No Closure activities are required Covan road and debris and vesse into containers to Roberts Bay Remove Archael Cutes Load all debris and vesse into containers Load all debris and vesse into containers Load all debris and vesse into containers Remove Archael Cutes Regresse are for positive demanageance Cut tailings line running abongside the road into manageable pieces Strap together or load pipe sections in containers for shipping off-site	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,200.0 C.302 11.1 C.401 11.1 C.404 4,150.0 C.5.05 3.0 US - C.5.17 - C.5.	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$3.31 \$ \$3.31 \$ \$5.31 \$	1,045.76 76.56 9,869.53 227.84 76.56 175.15 90.228 25.53 9,869.53 150,000.00 176.91 4.77 207.14 6.72.82 50,000.00	Including the AWR 574,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length)
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 Doris Mountain	8 1 1 8 2 2 8 8 2 2 8 8 2 2 8 8 3 3 8 8 3 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 4 4 1 1 1 1 1 1	Pepare units for shipping of-site Haul units to Roberts Bay Fuel Storage Area Pepare pads for positive diranges Fuel Storage Area Pepare pads for positive diranges Fuel Storage Area Pepare pads for positive diranges Fuel Storage Area Remove lear and out into manageable pieces Fuel Storage Area Fuel Remove Increase out into manageable pieces Fuel Storage Area Fuel Storage Fuel Storage Fuel Storage Area Fuel Storage Fuel Storage Fuel Storage Fuel Storage Area Fuel Storage Fuel Storage Fuel Storage Fuel Storage Area Fuel Storage	10 C.108 33.2 C.404 4,150.0 C.5.05 33.2 C.4.04 1,200.0 C.3.02 11.1 C.4.01 11.1 C.4.04 4,150.0 C.5.05 3.0 US 1.0 US 1.0 US 1.0 US 2.5.4 C.4.01 2.5.4 C.4.08 0.5 C.3.05 2.5.4 C.4.01 2.5.4 C.4.01 2.5.4 C.4.01 2.5.4 C.4.03 753.1 C.4.01 753.1 C.4.01 753.1 C.4.01 18.8 C.5.15	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$2.31 \$ \$2.38 \$ \$2.31 \$ \$2	1,045.76 9,869.53 227.84 76.56 175.15 90.28 90.00.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82 50,000.00 15,346.86 6,141.69 1,736.61 1,636.50 3,757.20	Including the AWR 574,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 Doris Mountain	8 1 1 8 8 2 2 8 8 2 2 8 8 2 2 8 8 3 3 8 8 3 3 9 1 1 9 2 2 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2 2 2 2 2 3 3 3 3 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5	Piepare units for shipping of-site is a Haul units to Roberts Bay in Flesh Storage Area Haul units to Roberts Bay in Flesh Storage Area Piepare units for shipping of-site distances Piepare units for shipping of-site is a Regarde peaks to Roberts Bay in Flesh Storage Area Piepare units of Roberts Bay in Flesh Storage Area Piepare units of Roberts Bay in Flesh Storage Area Piepare units of Roberts Bay in Flesh Storage Area Piepare units of Roberts Bay in Flesh Storage Area Piepare units of Roberts Bay in Flesh Storage Area Piepare units of Roberts Bay in Flesh Storage Area Piepare units of Roberts Bay in Flesh Storage Area Piepare units of Roberts Bay in Flesh Storage Facility Piepare units of Roberts Bay in Flesh Storage Facility Piepare units of Roberts Bay in Flesh Bay in F	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,200.0 C.302 11.1 C.401 11.1 C.404 4,150.0 C.5.05 3.0 IS 1.0 IS - C.5.17	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$2.37.84 \$ \$2.31 \$ \$5.01.4 \$ \$5.16 \$ \$2.31 \$ \$5.00.00 \$ \$5.00 \$ \$5.00.0	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 4.77 207.14 6.672.82 50,000.00 15,346.86 6.141.69 1,736.61 1,636.50 3,757.20 28,104.00 63.46 6,826.56	Including the AWR 574,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length)
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 Doris Mountain	8 1 1 8 2 2 8 8 2 2 8 8 2 2 8 8 8 3 3 8 8 3 3 9 1 1 9 2 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Prepare units for Approp of -Bits Haul units to Roberts Bay Fluel Storage Area Pluel Storage Area Pluel Storage Area Pluel Storage Area Remove Instruction Charles Remove Instruction Remove Instruction Charles Remove Instruction Containers to Roberts Bay Losal alderis and waste into containers and Remove Lined Lost and Remove Instruction Containers to Roberts Bay Baddill area to prevent permanent ponding AWR Remove Area Containers to Roberts Bay Remove Crown road for postive dimainer Crown road for postive dimainer Crown road for postive dimainer County A No Closure achivities are required Quarry B No Closure achivities are required Quarry B No Closure achivities are required Quarry B No Closure achivities are required Quarry C Demostre Betty also Remove Bay Captainer Losal all debris and waste into containers Losal all debris and waste into containers Regrade area for positive dimainer Losal under the Containers to Roberts Bay Cut tailings line running alongside the road into manageable pieces Cut tailings line running alongside the road into manageable pieces Cut tailings line running alongside the road into manageable pieces Remove piece cutwert east of the bridge Communications Towers Dismantle the communications towers and prepare for shipping off-site Dismantle the communications towers and prepare for shipping off-site Dismantle the communication towers and waste from Doris Mountainers to Remove entries captainers of the bridge Remove all equipment, material, and waste from Doris Mountainers is an applied of site of the containers of the proper of the pr	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,200.0 C.302 11.1 C.401 11.1 C.404 4,150.0 C.5.05 10 C.5.05 10 C.5.05 2.6 C.5.05 2.6 C.408 2,805.8 C.5.05 10 1,569.0 C.3.05 25.4 C.4.01 1,569.0 C.3.05 25.4 C.4.01 1,569.0 C.3.05 25.4 C.4.01 1,569.0 C.3.05 25.4 C.4.01 1,569.0 C.3.05 10 C.3.05 11.0 C.1.05 12.0 C.1.07 12.0 C.3.11 12.0 C.1.07 12.0 C.3.31 12.0 C.1.05	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$3.31 \$ \$3.31 \$ \$5.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 6.76.77 207.14 6.76.77 207.14 16.667 1.636.50 3,757.20 28,104.00 63.46 6,826.56 14,063.52 73.17	Including the AWR 574,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length)
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 Doris Mountain DM-001 Off-site Shipping for Dispe	8 1 1 8 2 2 8 2 2 8 8 2 2 8 8 2 2 8 8 8 3 3 8 8 3 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Prepare units for shipping of-site Haul units to Roberts Bay Fluel Storage Area Pluel Storage Area Pluel Storage Area Pluel Storage Area Remove Instruction Christopheric Storage Remove Instruction Christopheric Storage Remove Instruction Containers and Haul Containers to Roberts Bay Remove Instruction Containers and Haul Containers to Roberts Bay Remove Local all debris and vaste into containers and Roberts Bay AWR Remove Crown road for possible dimainers Remove Arched Local all debris and vaste into containers and Local all all all all all all all all all	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,210.0 C.3.02 11.1 C.401 11.1 C.404 4,150.0 C.5.05 3.0 IS - C.5.17 - C.5	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$3.31 \$ \$5.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 150,000.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82 50,000.00 15,346.86 6,141.69 1,736.61 1,636.50 3,757.20 28,104.00 63.46 6,826.56	Including the AWR 574,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length)
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 DM-001 Off-site Shipping for Dispo	8 1 1 8 8 2 2 8 8 2 8 8 3 3 8 9 1 1 9 2 2 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 6 7 6 7 6	2 2 2 3 3 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Prepare units for shipping of-site is Haul units to Roberts Bay Regrade pads for postave drainage of the Storage Area Property of the Storage Area Proposition of the Proposition of the Area Proposition of the Proposition	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,200.0 C.3.02 11.1 C.4.01 11.1 C.4.01 4,150.0 C.5.05 3.0 US 1.0 US 1.0 US 1.0 US 1.0 US 1.0 US 2.0 C.5.05 25.4 C.4.01 25.4 C.4.01 25.4 C.4.01 25.8 C.5.05 1.0 1.5.99.0 C.3.03 753.1 C.4.04 18.8 C.5.15 12.0 C.1.05 12.0 C.3.05 12.0 C.1.05 12.0 C.1.05 12.0 C.1.05 12.0 C.3.05	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$3.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82 50,000.00 15,346.86 6,141.69 1,736.61 1,636.50 23,674.18 2,326,910.54	Including the AWR \$74,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) \$52,999
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 Doris Mountain DM-001 Off-site Shipping for Dispensive Shipping fo	8 1 1 8 8 2 2 8 8 2 8 8 2 8 8 2 8 8 2 8 8 2 8 8 8 2 8 8 8 2 8 8 8 3 3 8 8 3 3 8 8 8 3 3 8 8 8 8	2 2 2 2 3 3 1 1 1 2 2 1 1 1 1 1 1 1 1 1	Prepare units for shipping of-site is Haul units to Roberts Bay Regrade pads for postable dinariage in Fuel Storage Area Properties of Regrade pads for postable dinariage in Fuel Storage Area Properties of Regrade pads for postable dinariage in Fuel Storage Area Properties of Regrade pads for postable dinariage in Fuel Storage Area Remove learn and cut into manageable pieces in Remove Internation of Remove Architecture of Remove Archite	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,200.0 C.302 11.1 C.401 11.1 C.404 4,150.0 C.5.05 3.0 U.5 1.0	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$3.10,000.00 \$ \$3.10,000	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82 50,000.00 15,346.86 1,736.61 1,636.50 23,464.18 2,325,910.54 1,647,115.00	Including the AWR \$74,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) \$52,999
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 Doris Mountain DM-001 Off-site Shipping for Dispensive Communication of the Communication of	8 1 1 8 8 2 8 8 2 8 8 8 2 8 8 8 9 1 1 9 2 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Prepare units for shipping of-site is a Haul units to Roberts Bay Regrade pads for positive diranges of the Storage Area Drain and decommission. Environ Tank Haul Enviro Tank to Roberts Bay Remove Increase out into manageable pieces in Load all debris and waste into containers and the Storage Area Load all debris and waste into containers and Haul containers to Roberts Bay Backfill area to prevent permanent prodring AWR Remove Area Drain and Crown road for positive diranges of Crown road for Positive Crown road for P	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,200.0 C.302 11.1 C.401 11.1 C.4	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$3.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82 50,000.00 15,346.86 6,141.69 1,736.61 1,636.50 23,674.18 2,326,910.54	Including the AWR \$74,882 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) \$52,909 \$3,997,700
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 Doris Mountain DM-001 Off-site Shipping for Dispensive Common Com	8 1 1 8 8 2 2 8 8 2 2 8 8 3 3 8 3 3 8 8 3 3 8 8 3 3 8 8 9 1 1 9 2 2 9 1 9 5 9 9 5 5 9 9 9 5 5 9 9 9 9 5 5 9 9 9 5 5 9 9 9 5 5 9 9 9 9 9 5 5 9	2 2 2 3 3 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1	Prepare units for shipping of-site is a Haul units to Roberts Bay Regrade pads for postave drainage of the Storage Area Drain and decommission. Environ Tank Haul Enviro Tank to Roberts Bay Remove Incertain out into manageable pieces in Cast and debris and waste into containers and the Storage Area Load all debris and waste into containers and the Storage Area Load all debris and waste into containers and Haul containers to Roberts Bay Backfill area to prevent permanent prodring Crown road for postave drainage of Country B No Closure archivelas are required Explosives Storage Facility Remove all explosive magazines Demoiste the try of Crown road for postave drainage of Country B No Closure archivelas are required Explosives Storage Facility Remove all explosive magazines Demoiste drainage of Country B No Closure archivelas are required Explosives Storage Facility Remove all explosive magazines Demoiste drainage of Cut tailings line running alongside the road into containers or Roberts Bay Regrade area for postave drainage of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into manageable pieces of Cut tailings line running alongside the road into	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 4,150.0 C.5.05 11.1 C.401 4,150.0 C.5.05 1.0	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$2.37 \$ \$3.31 \$ \$3.38 \$ \$3.31 \$ \$3	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 1550,000.00 100,000.00 176.91 4.77 207.14 4.77 207.14 6.76.77 207.14 6.76.72 82 50,000.00 15,346.86 14,636.50 3,757.20 28,104.00 63.46 6,826.56 14,063.52 73.777.20 23,674.18 23,269.910.51	Including the AWR \$74,882 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) \$52,909
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 SR-001 Off-site Shipping for Dispo DN-002 DN-002 Off-Site Disposal Fees DN-001 Water Management WM-001	8 1 1 8 8 2 2 8 8 2 2 8 8 2 8 8 2 2 8 8 8 2 2 8 8 8 2 2 8 8 8 2 2 8 8 8 2 2 8 8 8 2 2 8 8 2 8 2 8 8 2 8 2 8 8 2 8 2 8 8 2 8 2 8 8 2 8 2 8 8 2 8 2 8 8 2 2 8 8 2 8 2 8 8 2 8 2 8 8 2 8 2 8 8 2 8 2 8 2 8 8 2 8 2 8 2 8 8 2 2 8 8 2 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 2 8 2 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 2 8 2 8 2 8 2 8 2 8 2 2 8 2 8 2 2 8 2 8 2 2 8 2 2 8 2 2 8 2 2 2 8 2	2 2 2 3 3 3 1 1 1 1 2 1 1 1 1 1 1 1 1 1	Prepare units for shipping of-site in Haul units to Roberts Bay Regrade pads for possible drainage of the Storage Area Drain and decommission. Environment of the Storage Area Drain and Storage Area Drain and Storage Area. AWR Remove bridges Remove Archeologism Crown road for possible drainage Country A No. Closure archites are required Crown road for possible drainage Area Drain and Storage Area	1.0 C.1.08 33.2 C.4.04 4,150.0 C.5.05 1.0 C.2.03 33.2 C.4.04 1,210.0 C.3.02 11.1 C.4.01 11.1 C.4.01 4,150.0 C.5.05 3.0 U.5 1.0	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82 50,000.00 15,346.86 6,141.69 1,786.61 1,686.50 28,728.00 28,728.00 28,728.00 28,728.00	Including the AWR \$74,862 Bemove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) \$52,909 \$3,997,700 \$89,086
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 Doris Mountain DM-001 Off-aits Shipping for Dispo DN-002 Off-Site Disposal Fees DN-001 Water Management WM-001	8 1 1 8 8 2 2 8 8 8 2 8 8 2 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 9 9 8 8 9 9 9 8 9 9 9 8 9 9 9 8 9	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Prepare units for shipping of-site in Haul units to Roberts Bay Regrade pads for possible drainage of the Storage Area Drain and decommission. Environment of the Storage Area Drain and Storage Area Drain and Storage Area. AWR Remove bridges Remove Archeologism Crown road for possible drainage Country A No. Closure archites are required Crown road for possible drainage Area Drain and Storage Area	1.0 C.1.08 33.2 C.4.04 4,150.0 C.5.05 33.2 C.4.04 1,20.0 C.3.02 11.1 C.4.01 11.1 C.4.01 11.1 C.4.01 11.1 C.4.01 11.1 C.4.01 11.0 IS - C.5.17 - C.5.	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$3.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 1550,000.00 100,000.00 176.91 4.77 207.14 4.77 207.14 6.76.72 50,000.00 15,346.86 14,636.50 3,757.20 28,7	Including the AWR \$74,862 Bemove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) \$52,909 \$3,997,700 \$89,086
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 Orris Mountain DM-001 Off-site Shipping for Disper DN-001 DN-002 Off-Site Disposal Fees DN-001 Water Management WM-001	8 1 1 8 8 2 2 8 8 8 2 8 8 8 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 3 3 3 1 1 1 1 2 1 1 1 1 1 1 1 1 1	Prepare units for shipping of-site Haul units to Roberts Bay Fuel Storage Area Place Storage Place Storage Place Storage Area Place Storage Place Storage Place Storage Place Storage Area Place Storage Place Storage Place Storage Place Storage Area Place Storage Place Storage Place Storage Place Storage Area Place Storage Place Storage Place Storage Place P	1.0 C.1.08 33.2 C.4.04 4,150.0 C.5.05 1.0 C.2.03 33.2 C.4.04 1,210.0 C.3.02 11.1 C.4.01 11.1 C.4.01 4,150.0 C.5.05 3.0 U.5 1.0	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$3.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.30,000.00 \$ \$5985.38 \$ \$50,000.00 \$ \$5985.38 \$ \$510,61 \$ \$5.16 \$ \$2.26 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$3	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82 50,000.00 15,346.86 6,141.69 1,786.61 1,686.50 28,728.00 28,728.00 28,728.00 28,728.00	Including the AWR \$74,882 Bemove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) \$52,909 \$3,997,700 \$83,997,700 \$81,178,590 \$11,178,590 \$12,5 days open water season (May) I to Sept. 30); 3 seasons
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 SR-001 Orris Mountain DM-001 DN-001 DN-001 DN-001 DN-001 TOTAL DIRECT COSTS MOIRECT CLOSURE COST Contingency 1 1 Mobilization & Demobilizer TOTAL DRECT CLOSURE COST Contingency 1 1 Mobilization & Demobilizer	8 1 1 8 8 2 2 8 8 2 8 8 2 8 8 2 8 8 2 9 8 8 9 9 8 8 9 9 9 8 8 9 9 9 9	2 2 2 3 3 3 3 4 5 3 3 5 5 5 5 5 5 5 5 5 5 5 5	Prepare units for shipping of-site is Haul units to Roberts Bay Regrade pads for positive dinnings in Fuel Storage Area Dinnia and decoministion. Environ Tank Haul Enviro Tank to Roberts Bay Bas and the Property of the Pro	1.0 C.1.08 33.2 C.4.04 4,150.0 C.5.05 1.0 C.2.03 33.2 C.4.04 1,210.0 C.3.02 11.1 C.4.01 11	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$3.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 6.76.77 207.14 6.76.77 207.14 1,676.77 207.14 20.00 15,346.86 1,636.50 1,736.61 1,636.50 25.56 1,063.52 73.17 20.69 22,104.00 63.46 6,826.56 14,063.52 73.17 20.69 21,000.00 64,086.41 1,647,115.00 25,000.00 64,086.41	Including the AWR 574,862 Remove Assuming the diameter is 0.4 m and the pipelline runs on the side of the road (have the same length) \$52,909 \$3,997,700 \$89,086 \$1,178,590 152 days open water season (May1 to Sept. 30); 3 seasons \$7,855,183 \$73,879 \$71,993 \$quipment mobilised from Edmonton
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 SR-001 Off-site Shipping for Disponent DN-001 Off-site Disposal Fees DN-001 Water Management WM-001 Water Management WM-001 TOTAL DIRECT COSTS NORRECT CLOSURE COST Contingency Mobilization & Demobilize	8 1 1 8 2 2 8 8 2 2 8 8 3 3 8 3 3 9 1 1 9 2 9 9 5 9 9 5 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 3 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5	Prepare units for shipping of-site Haul units to Roberts Bay Fuel Storage Area Place Stor	10 C.108 332 C.404 4,1500 C.505 10 C.203 332 C.404 4,1500 C.305 111 C.401 11	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$2.31 \$ \$3.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.31 \$ \$5.30,000.00	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82 50,000.00 15,346.86 6.141.69 1,736.61 1,636.70 23,674.18 2,326,741.18 2,326,	Including the AWR \$74,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same langth) \$52,909 \$33,997,700 \$33,997,700 \$152 days open water season (May1 to Sept. 30); 3 seasons \$7,855,183
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 SR-001 Doris Mountain DM-001 Off-site Shipping for Dispo DN-001 Water Management WM-001 Water Management WM-001 TOTAL DIRECT COSTS INDIRECT CLOSURE COST Contingency Mobilization & Demobiliza 1 Mobilization & Demobiliza 1 General and Administration 1 3 3 3 3	8 1 1 8 8 2 2 8 8 2 8 8 2 8 8 9 9 9 9 9 9 9 9	2 2 2 3 3 3 3 4 5 3 3 5 5 5 5 5 5 5 5 5 5 5 5	Prepare units for shipping of-site in Haul units to Roberts Bay Regrade pads for possible dinariage in Haul units to Roberts Bay Regrade pads for possible dinariage in Haul units to Roberts Bay Drain and decommission. Environ Tank Haul Enviro Tank to Roberts Bay	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 4,150.0 C.5.05 11.1 C.401 4,150.0 C.5.05 11.1 C.401 4,150.0 C.5.05 1.0 C.5.05 1.0 C.5.17	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$3.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 176.	Including the AWR
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 SR-001 Doris Mountain DM-001 DN-001 DN-001 DN-001 DN-001 Water Management WM-001 Water Management WM-001 TOTAL DIRECT COSTS ANDIRECT CLOSURE COST Contingency 1 Mobilization & Demobiliza 2 General and Administration 3	8 1 1 8 2 2 8 8 2 2 8 8 3 3 9 3 9 9 5 9 9 5 5 5 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 3 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5	Prepare units for shipping of-site Haul units to Roberts Bay Fuel Storage Area Place Stor	1.0 C.1.08 3.3 2 C.4.04 4.150.0 C.5.05 1.0 C.2.03 3.3 2 C.4.04 4.150.0 C.3.02 1.1.1 C.4.01 1.1 C.4.01	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$5.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 1150,000.00 100,000.00 176.91 4.77 207.14 6.672.82 50,000.00 15,346.86 6.141.69 1,736.61 1,636.50 3,757.20 28,104.00 63.46 6,826.56 14,063.52 73.17 20.69 23,26,910.54 1,647,115.00 25,000.00 64,086.41 716,310.00 287,280.00 00 287,280.00 00 287,280.00 00 3427,515 5284,478 \$161,500 \$25,683 \$4427,515 \$284,478 \$161,500 \$25,683 \$4427,515 \$284,478	Including the AWR
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 SR-001 Doris Mountain DM-001 DM-001 DM-001 William DM-001 William Amangement WM-001 William Amangement TOTAL DIRECT COSTS INDIRECT CLOSURE COST Contingency Mobilization & Demobilization & Common Second	8 1 1 8 8 2 2 8 8 2 8 8 2 8 8 2 9 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1	2 2 2 3 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5	Prepare units for shipping of-site Hall units to Roberts Bay Fleat Storage Area Pleat Sto	1.0 C.1.08 3.3 Z. 4.04 4,150.0 C.5.05 1.0 C.2.03 3.3 Z. 4.04 4,150.0 C.5.05 1.1 C.4.04 4,150.0 C.5.05 1.1 C.4.04 4,150.0 C.5.05 1.0 C.5.17 1.0	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$3.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 100,000.00 100,000.00 176.91 4.77 207.14 67.67 6,672.82 50,000.00 15,346.86 6.141.69 1,736.61 1,646.72 28,104.00 13,466 6,826.56 14,647,150 24,000.00 24,780.00 25,000.00 25,000.00 50,000.00 5753,679.33 \$427,515 \$284,478 \$161,500 \$25,680.00 \$25,000.00 \$27,280.00 50,000.00 \$3,464 \$3,464 \$3,467,515 \$284,478 \$161,500 \$26,6583 \$3467,313 \$427,515 \$284,478 \$161,500 \$26,6583 \$3467,335 \$26,583 \$3467,335 \$3467	Including the AWR \$74,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) \$52,909 \$3,997,700 \$3,997,700 \$1,178,590 \$1,178,590 \$1,478,590 \$1,478,590 \$1,478,590 \$2,082,400 \$7,858,183 \$7,858,183 \$7,858,183 \$2,082,400 Charter Yellowkrile-Doris and return \$1,32,331
Orris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 SR-001 Doris Mountain DM-001 DN-001 DN-001 Water Management WM-001 Water Management WM-001 TOTAL DIRECT COSTS NOIRECT CLOSURE COST Contingency 1 Mobilization & Demobilization 3 General and Administration 3 General and Administration 3 General and Administration 3 General and Administration 4 Hydrocarbon decontamina	8 1 1 8 2 2 8 8 2 2 8 8 3 3 8 3 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Prepare units for shipping of-site Haul units to Roberts Bay Regrade pads for positive drainage Flat Storage Area Dian and decommission. Environ Tank Haul Enviro Tank to Roberts Bay Remove liner and cut into manageable pieces Load all debris and waste into containers and Load all debris and waste into containers and Backfill area to prevent permanent ponding Crown road for positive drainage Country A Remove bridges Remove Arched Country Remove Arched Crown road for positive drainage Country A Ro Cotoure activities are required Country B Roberts Bay Remove Brodges Facility Remove all equipore activities are required Country B Roberts Bay Remove Brodges Facility Remove all equipore activities are required Country B Roberts Bay Remove Brodges Facility Remove all equipore activities are required Country B Roberts Bay Regrade area for positive drainage Cut tailings line running alongside the road into containers Strap together or load pipe sections in containers for shoping off-site Communications Towers Communications Towers Strap together or load pipe sections in containers for shoping off-site Remove pipe cutwert east of the bridge Communications Towers Communications Towers Dismantle the communications towers and prepare for shopping off-site Remove all equipment, material, and waste from Doris Mountainers Place all waste from charies for shoping off-site Remove all equipment, material, and waste from Doris Mountainers Place all waste from charies of shoping off-site Remove and prepare for shopping off-site Remove and sections to Roberts Bay Remove pipe cutwert ask of the bridge Ship Off-site for disposal by barge Ship Off-site	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,200.0 C.302 11.1 C.401 11.1 C.4	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$5.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 176.91 4.77 207.14 4.77 207.14 6.76.77 207.14 5.672.82 50,000.00 15,346.86 6.141.69 1,736.61 1,636.50 28,104.00 63.46 6,826.56 14,063.52 73.17 20.69 28,104.00 63.46 6,826.56 14,063.52 73.17 20.69 25,000.00 64,086.41 25,000.00 287,280.00 125,000.00 55,000.00 55,000.00 \$753,679.33 \$427,515 \$284,478 \$161,500 \$25,680.30 \$753,679.33 \$427,515 \$284,478 \$161,500 \$25,000.00 \$753,679.33 \$427,515 \$284,478 \$161,500 \$25,000.00 \$753,679.33	Including the AWR \$74,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same langs)) \$52,909 \$3,997,700 \$33,997,700 \$152 days open water season (May1 to Sept. 30); 3 essours \$7,855,183 \$71,930 Equipment mobilised from Edmonton Equipment demobilised to Edmonton Caupment de
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 SR-001 DM-001 DM-001 DM-001 DM-001 DM-001 Water Management WM-001 Water Management WM-001 Water Management WM-001 TOTAL DIRECT COSTS MOIRECT CLOSURE COST Contingency Mobilization & Demobiliza 2 General and Administration 3 3 7 SR-001 SR-001 William Cost SR-001 William Cost SR-001 DM-002 DM-002 DM-002 DM-002 DM-002 DM-002 DM-001 Water Management WM-001 WH-001 Water Management WM-001 WATER MANAGEMENT WATE	8 1 1 8 2 2 8 8 2 2 8 8 3 3 8 3 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Prepare units for shipping of-site Hall units to Roberts Bay Regrade pads for postable dinarings Flat Storage Area Plat Storage Area Plat Storage Area Remove liner and contribution from Tank Hall Enviro Tank to Roberts Bay Remove liner and cut into manageable pieces Load all debris and waste into containers and Hall containers to Roberts Bay Backfill area to prevent permanent prodring AWR Remove Archae Remove Archae Crown road for postable dinarings Remove Archae Crown road for postable dinarings Remove Archae Country A No Closure archites are required Country B No Closure archites are required Exploatives Storage Facility Remove all explosive magazines Load all debris and waste into containers And Country B Remove Archae Load all debris and waste into containers And Country B Tall Lake Road Remove Doris Creek bridge Cut tailings line running alongside the road into manageable pieces Strap together or load pipe sections in containers for shipping off-site Communications Towers Strap together or load pipe sections in containers for shipping off-site Communications Towers Strap together or load pipe sections in containers for shipping off-site Remove all equipment housing shack Remove all equipment maintenance support - Mechanic Rem	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 4,150.0 C.5.05 11.1 C.401 11.1 C.401 4,150.0 C.5.05 1.0 C.5.05 1.0 C.5.05 1.0 C.5.05 1.0 C.5.05 1.0 C.5.05 1.0 C.3.05 1.0	\$1,045.76 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$227.84 \$ \$2.31 \$ \$3.31	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 100,000.00 100,000.00 100,000.00 100,000.00 15,346.86 6,141.69 1,786.61 1,636.52 28,104.00 63,265.66 14,635.26 14,635.26 14,635.26 14,635.26 14,635.26 14,635.26 14,635.26 14,635.26 14,635.26 15,346.86 14,635.26 15,346.86 15	Including the AWR \$74,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) \$52,909 \$3,997,700 \$3,997,700 \$1,178,590 \$1,178,590 \$1,2 days open water season (May Lto Sept. 30); 3 seasons \$7,855,183 \$7,855,183 \$7,855,183 \$2,082,405 Charter Yellowkrife-Doris and return minimum of 4 hr per day (Doris Mountain towers) \$150,000 \$150,000
Doris Windy Road DW-001 DW-002 DW-003 DW-004 DW-005 Secondary Road SR-001 SR-001 Doris Mountain DM-001 DM-002 Off-site Shipping for Dispo DN-002 Off-Site Disposal Fees DN-001 Water Management WM-001 Water Management WM-001 TOTAL DIRECT COSTS INDIRECT CLOSURE COST Contingency Mobilization & Demobiliza 1 3 3 Field support 4 4 Hydrocarbon decontamina 1 5 5	8 1 1 8 2 2 8 8 2 2 8 8 3 3 8 3 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Prepare units for shipping of-site Hall units to Roberts Bay Regrade pads for positive dinnings Flat Storage Area Drain and decommission. Fruit-with Tank Hall Enviro Tank to Roberts Bay Remove liner and out into manageable pieces Load all debris and waste into containers and Backfill area to prevent permanent pronting AWR Remove brings Remove Archaed Cubert Crown road for positive dinnings Country A No Course archites are required Country A No Course archites are required Country B No Course archites are required Load all debris and waste into containers Remove Archaed Cubert Crown road for positive dinnings No Course archites are required Remove Desire archites are required Load and debris and waste into containers Remove Archaed Cubert Remove Desire debris Bay Regrade area for positive dinnings Cut tailings line running alongside the road into manageable pieces Strap together or load pipe sections in containers for shipping off-site Remove pare cubert seat of the bridge Communications Towers Communications Towers Dismantle the communications towers and prepare for shipping off-site Remove all equipment, material, and seate for bridge in the proper countries and only the proper countries and of the bridge in the proper countries and only the proper countries and only the proper countries and of the bridge in	10 C.108 33.2 C.404 4,150.0 C.5.05 10 C.203 33.2 C.404 1,200.0 C.302 11.1 C.401 11.1 C.4	\$1,045.76 \$ \$2.31 \$ \$2.38 \$ \$227.84 \$ \$2.31 \$ \$3.31 \$ \$2.31 \$ \$3.31 \$	1,045.76 9,869.53 227.84 76.56 9,869.53 227.84 76.56 175.15 90.28 25.53 9,869.53 150,000.00 100,000.00 100,000.00 100,000.00 176.91 4.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 6.77 207.14 20.00 15.346.86 6.820.56 1.78 23.75	Including the AWR 574,862 Remove Assuming the diameter is 0.4 m and the pipeline runs on the side of the road (have the same length) 552,909 \$3,997,700 \$3,997,700 \$1,178,590 152 days open water season (May 1 to Sept. 30); 3 seasons \$7,855,183 \$753,879 \$711,932 Equipment demobilised from Edmonton Equipment demobilised to Edmonton Charter Yellowknife-Doris and return Charter Yellowknife-Doris and return (handle to Edmonton September 1 to Sept. 30); 3 seasons \$132,331 minimum of 4 hr per day (Doris Mountain towers) \$150,000 Includes 1 week monitoring able work, sample testing, monitoring able work, sample testing, monitoring apport, geodechnical aspected and report, geodechnical aspected and report, geodechnical aspected and report, geodechnical aspected in air report.
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Appendix B: Updated Doris Closure Cost Estimate

Worksheet 2: Indirect Cost Calculations

Mob/Demob Costs

Crew mobilization costs included in loaded labour rates.

The barging fee for equipment is calculated on a square foot basis

No. of units	Description	Units	Quantity	Unit cost	Task cost	Notes
Camp Demolition	Construction equipment	Footprint	Ĭ			
1	Bobcat	m ³	11.0	\$ 332.96	\$ 3,657.90	From Hay River to Roberts Bay
1	Loader	m ²	10.2	\$ 332.96	\$ 3,400.4	From Hay River to Roberts Bay
1	Dozer	m ²	20.3	\$ 332.96	\$ 6,750.20	From Hay River to Roberts Bay
1	Excavator	m ²	38.1	\$ 332.96	\$ 12,687.5	From Hay River to Roberts Bay
1		m ³	24.1	\$ 332.96	\$ 8,025.0	,
1	Trucks (CAT 735)	m ²	41.6			From Hay River to Roberts Bay
1	Tractor trailer	m ³	86.8			From Hay River to Roberts Bay
1					\$ 11,254.3	From Hay River to Roberts Bay
			\$ 15,000.00	\$ 120,000.00	hauling 8 trailers from Edmonton to Hay River / source: Doris cost estimate	
Subtotal Mobilisation					\$ 208,544	
Subtotal Demobilisation						Assumes same cost as mobilisation, updated by 5%
Total					\$ 427,51	i
	1				,	
Dam Breach		Footprint				
0	Bobcat	m°	11.0			From Hay River to Roberts Bay
1	Loader	m²	10.2			From Hay River to Roberts Bay
1	Dozer	m ²	20.3			From Hay River to Roberts Bay
1	Excavator	m ²	38.1			From Hay River to Roberts Bay
0	annen a derburen	m ³	24.1		\$ -	From Hay River to Roberts Bay
1		m²	41.6			From Hay River to Roberts Bay
0	Tractor trailer	m ³	86.8		\$ -	From Hay River to Roberts Bay
1	Crewcab pickup (Ford F35		33.8			From Hay River to Roberts Bay
5	Haul equipment to Shippin	each	5	\$ 17,250.00		hauling 8 trailers from Edmonton to Hay River / source: Doris cost estimate
Subtotal Mobilisation					\$ 138,770	
Subtotal Demobilisation					\$ 145,70	
Total					\$ 284,47	3

Camp Cost

Description					Quantity				
	Units	Cost Code	Unit Cort	Year 1 (Camp Demolition+ Water	Year 2 (Water Management)	Year 3 (Water Management + Dam Breach)	Total		Task Cost
Camp Management	day	OC.01	\$677.00	152	, ,	+ Dam Breach)	379	\$256,583	
Camp Operations	per day per person	OC.02	\$150.00			375	3095.487819		15 person crew for 82 days and 5 person crew for 70 days
Camp Rental	year	OC.03	\$400,000.00	1	1	1	3	\$1,200,000	
Travel allowance	charter flights	OC.05	\$10,000.00	7	0	0	7	\$70,000	charter flights for 15 person crews
	commercial flights	OC.04	\$750.00	20	60	42	122	\$91.500	4 person crew for water management; 8 person crew for dam breach, including engineer/surveyor 10 days to breach the dam
	g		Ţ.co.co			.=		\$2,082,406	,

Appendix B: Updated Doris Closure Cost Estimate Page 5 of 11

Worksheet 3: Unit Rates

				la .	
Cost Code		Unit rate	Unit	Comment	Source
Equipment		A 455.50		h	lu nace
	Dozer (CAT D7) Dozer (CAT D4)	\$ 166.50 \$ 86.60		hourly equipment rate (less operator)	Nuna 2012 equipment rates Nuna 2012 equipment rates
E.03	Dozer (CAT D4) Dozer (CAT D4) w/ Tiller	\$ 99.59		hourly equipment rate (less operator) 15% added for tiller attachment	Nuna 2012 equipment rates
E.03	Truck (CAT 730)	\$ 99.59		hourly equipment rate (less operator)	Nuna 2012 equipment rates Nuna 2012 equipment rates
E.05	Excavator (CAT 330 CL)	\$ 185.00		hourly equipment rate (less operator)	Nuna 2012 equipment rates
E.06	Loader (CAT IT38/930)	\$ 82.30	hr	hourly equipment rate (less operator)	Nuna 2012 equipment rates
E.07	Skidder (CAT Bobcat)	\$ 80.10	hr	hourly equipment rate (less operator)	Nuna 2012 equipment rates
E.08	Helicopter	\$ 2,100.00	hr	fuel surcharge applies	IMiskolczi (from Angela Holtzapfel@HBML ESR)
E.09	Welding Equipment	\$ 52.58	day	300 Amps, gas/diesel driven	2009 BC Blue Book + 10% Northern Allowance, 10% fuel factor
E.10	Power washer	\$ 110.00	day	Hot water pressure washer - 3000 PSI	www.abtoolrentals.com/equipment.asp?action=category&category=190&key=190%2D0079
E.11	Drum crusher	\$ 35.60	hr	30 tones, mobile	RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 2012
E.12	Oil-water separator	\$ 27.50	hr	10 GPM, underground	RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 2012
E.13	Air Track Drill	\$ 296.34		, , , , , , , , , , , , , , , , , , , ,	2011 BC Blue Book + 10% Northern Allowance + 5% rate increase to 2012 +10% fuel factor
E.14	Tractor Trailer (6 axle lowbed+booster)	\$ 71.78		hourly equipment rate (less operator)	2011 BC Blue Book + 10% Northern Allowance + 5% rate increase to 2012
E.15	Flatbed truck (6x4, 5 tonne)	\$ 24.83	hr	hourly equipment rate (less operator)	2011 BC Blue Book + 10% Northern Allowance + 5% rate increase to 2012
E.13	Clemro Crusher	\$ 787.40	hr	200 tons/hr (cost less operator)	Nuna 2012 Equipment Rates
Materials					
M.01	Liner - HDPE	\$ 28.93	m²	supply and install	from JDS (Surface Water Management Options Analysis)
M.02	Liner - geotextile	\$ 26.63	m²	supply and install	from JDS (Surface Water Management Options Analysis)
	Fuel (Diesel)	\$ 1.17	L	2008 Landed fuel cost at Hope Bay	Maritz (from Jeff Reinson @ Newmont)
M.04	Explosives	\$ 21.38	m²	15% freight cost added	RSMeans, 2005; adjusted to 2009 dollars based on CPI + 15% rate increase to 2012
M.05	Silt Fencing	\$ 1.32	m	15% freight cost added	Cost Mine 2011; original price quoted in linear ft
M.06	Coco-matting	\$ 1.79	m²	15% freight cost added	Cost Mine 2011; original price quoted in sq. yards
M.07	Seed/Fertilizer	\$ 15.67	ka	15% freight cost added	Arctic Alpine seed mix+ fertilizer (2009)
M.08	Winter road	\$ 16,675.00	km	open and maintain for 2 months	NUNA Logistics (from Court Smith) + 15% cost increase to 2012
M.09	Hazardous Waste Disposal fee	\$ 10,000.00		Disposal + handling and cleaning fee	SRK estimate
M.10	Demolition Debris Disposal Fee (@Hay R		m ³	Disposal + handling fee	Personal communication with Rob Jamieson@Hav River Disposals Ltd.
M.12	Bentonite chips	\$ 570.96	m³	In 50 pound bags, 15% freight cost added	Holly North Production Supplies Limited
M.13	Plastic wrapping	\$ 1.00	m²	in 14 ft wide rolls	web search; shrinkit-inc.com accessed June15, 2012
Labour	паско таррину	Ų 1.00			
L.01	Labour general	\$ 56.96	hr		Nuna Blended 2012 rate, POH included
L.02	Labour - Trades	\$ 85.26	hr	Electrician, Welder, plumber etc.	Nuna Blended 2012 rate, POH included
L.05	Supervision	\$ 97.70	hr	,,	Nuna Blended 2012 rate, POH included
L.06	Truck Drivers	\$ 65.81	hr	Heavy Equipment	Nuna Blended 2012 rate, POH included
L.07	Heavy Equipment Operator	\$ 71.32	hr	Light equipment	Nuna Blended 2012 rate, POH included
L.08	Technician (Consultant)	\$ 130.00	hr	Staff Consultant	SRK-Estimate (all inclusive)
L.09	Note: Loading Rate includes allowances f	or (EI, CPP, MSF	/Benefits	/Travel/OT)	
Shipping					
S.01	Outbound Shipping - Soils	\$ 989.00	m ³	1.7 t/m ³ bulk density	(7.75 m³/seacan based on 29,000 lbs limit per seacan, seacan is 38.5 ㎡) - from NTCL 17APR 12
S.02	Outbound Shipping - Haz Waste	\$ 200.00	m ³	1.0 t/m ³ bulk density	(7.75 m³/seacan based on 29,000 lbs limit per seacan, seacan is 38.5 m³) - from NTCL 17APR 12
	Outbound Snipping - Haz Waste Outbound Shipping - Demolition	\$ 200.00	m ³	0.733 t/m ³ bulk density	\$7661/seacan (seacan is 38.5 m) - from NTCL 17APR 12
S.03	Shipping cost per seacan	\$ 7,661.00		0.750 VIII Dulk delisity	NTCL 17Apr 2012
	on Soils and Haz Waste	7,001.00	caul		
	Excavate impacted soil	\$ 19.18	m³		WESA estimate say reference
H.02	Low temperature thermal desorption	\$ 100.00			WESA estimate say reference
	Rehydrate and backfill	\$ 10.69			WESA estimate say reference
H.04	Regrade and reshape	\$ 2.38	m²		WESA estimate say reference
H.05	Tipping Fee for HC Soils at Hay River	\$ 100.00			Communication with Hay River Landfill Tsharp 18APR12
Owner's c	,	ý 100.00	conne		The second secon
	Camp management	\$ 677.00	day		Newmont
OC.02	Camp operations	\$ 150.00	day	includes food and camp maintenance	Newmont
OC.03	Camp rental	\$ 400,000.00	year	25 man mobile camp	Newmont
OC.04	Commercial flight	\$ 750.00	person	flight from Yellowknife to Cambridge Bay an	
	Charter flight	\$ 10,000.00		Return from Yellowknife	
	<u> </u>	,			<u> </u>

Appendix B: Updated Doris Closure Cost Estimate

Worksheet 4: Task Unit Rate Calculations

Worksheet 4: Task Unit Rate Calculations									Labauu					Faulana	•							
				Unit F	Rates		\$ 56.96	\$ 85.26	1 85.26 \$ 85.26	5 S 130.00	\$ 65.81 \$ 71	32 \$ 166.50	\$ 185.00 \$ 82	30 S 80.10 S 1	38.70 \$ 71	78 \$ 24.83	\$ 2,100,00	\$ 296.34 35.6	6 11	52.58	787.4	
				0	lutes		ŷ 50.50	Q 03.20	05.20 \$ 05.20	3 30.00	ŷ 03.01 ŷ 71	32 V 100.30	7 103.00 7 02	30 9 00:10 9 1	50.70 Ç 71	, o	ŷ 2,100.00) 230.34 33.0	- i	52.50	707.1	
									U 50	\ <u>=</u>	t . t	. ¥	7 <u>2</u>	S S	i <u>a</u>] Z	70	she	ash	ŧ		
								ical	anii	eer	me "tor	to to	at 80 -	a o	r.	ad t) ž	25	<u> </u>	ing	er	
Cost		Productivity		Material Unit		Equipment	por	ade	ade ade	gin	ght quip pera	pera	at 33	kidd 12	actc	atbe	Hic	≡ §)we	reldi Tuip	ush.	
Code Item	Unit	(Unit/hr)	Cost	Rate	Rate	Unit Rate	ב ق	产品	72 72	두	3 2 2 3 3	ō ă à	3 C 2 S	3 2 2 F	7 73	# S	ž	ă ă	2	> ₽	ა	Note / Source
C.1.01 Decomission and remove all heating fuel tanks and place into lined facility	each	4.00	\$ 66.89	٠	\$ 46.31	\$ 20.58	8 2				1		1						T	T I		Disconnect and remove all fuel drums and disconnect all Tidy Tanks from all structures
C.1.02 Decomission above ground storage tanks	each	0.5	\$ 398.36		\$ 398.36		2	1														Disconnect all fuel lines and electrical parts
C.1.03 Decomission potable water supply	each	0.25	\$ 1,166.24		\$ 981.24				1		0.25		0.25									Disconnect all electrical and plumbing (intake and distribution)
C.1.04 Decomission waste incinerator	each	0.17	\$ 1,083.75						1		0.25		0.25									Disconnect and remove fuel storage
C.1.05 Decommission Main Camp Facility electricity	each	0.25	\$ 568.88	\$ -	\$ 568.88	\$ -	1	1														De-energise main electrical board, disconnect auxiliary power (if exists)
																						De-energise main breaker board, disconnect external fuel tanks (if needed) / loader used for lifting; source - RSMeans (260505252100)
C.1.06 Decommission electrical generators	each	0.46	\$ 599.98	\$ -	\$ 510.52	\$ 89.4	6 2	1			0.5		0.5									Journal (2005)25220)
C.1.07 Dismantle Satelite/Comunication Equipment	each	0.5	\$ 313.10		\$ 313.10		2	0.5														source - SRK estimate
C.1.08 Prep portable trailers for moving (remove cladding, apply shrinkwrap etc.)	each	0.25	\$ 1,045.76								0.5		0.5									
C.1.09 Decommision Airstip - Place large X's at each end of strip C.1.10 Dismantle airstip approach lights	each each	0.5	\$ 277.84 \$ 35.56		\$ 227.84 \$ 35.56		1	1														Assumed material cost for a high density plastic, nails and sandbags.
C.1.11 Dismantle Hoper, Crusher	each	0.05	\$ 2,844.40		\$ 2.844.40		1															
Decontamination		0.00	7 -,0		7 -,0:		_															
C.2.01 Collect hazardous chemical waste and place in suitable containers	m3	0.17	\$ 1,947.00		\$ 1,453.20						1		1									Includes all chemicals on site / jm_Estimate
C.2.02 Drain and power-wash heating fuel tanks (Tidy Tanks)	each	6.00	\$ 20.82				_			+ -				+					1			Drain fuel from tanks and wash exterior with hot water (collect water for treatment)
C.2.03 Drain above ground fuel storage tank C.2.04 Pressure wash above ground fuel tank	each each	0.5 0.16	\$ 227.84 \$ 780.75				2 5 2			+ -				+ +					1			Drain fuel /source - SRK estimate
C.2.05 Drain and power-wash empty fuel drums	each	12	\$ 16.35		\$ 15.44						1								1			Drain fuel and tripple-rinse drum (collect water for treatment)
C.2.06 Flush sewage treatment unit and collect sewage sludge	each	0.4	\$ 504.33	\$ -	\$ 373.95	\$ 130.3	8 2				0.5		0.5						1			Flush treatment unit with water (collect water for treatment)/source - SRK estimate
C.2.07 Empty incinerator and collect ashes	m3	0.25	\$ 535.08		\$ 370.48						0.5		0.5	+								Place ashes and unburned contents into containers / see C.6.04
C.2.08 Operate oil/water separator C.2.09 Empty soil from 45 gallon drums	m3	6.60	\$ 27.56 \$ 92.56								1		1						1			Collect skimmed oil from seperator and place in suitable container - 15 minutes per 55 gal. drum
C.2.10 Empty soil from 45 gailon drums C.2.10 Liner pressure wash cleaning	each m2	360	\$ 92.56		\$ 46.31					+ -	1		1	+					1			
Demolition			. 0.33		, 3.32	, 3.0.																
C.3.01 Crush empty fuel drums	each	20.00	\$ 15.16		\$ 9.26						1	•	1					1				
C.3.02 Cut Tank Farm geomembrane to manageable size	sq. m	1200.00	\$ 0.14		\$ 0.14		3															source - SRK estimate
C.3.03 Remove intake hoses and cut to manegeable size C.3.04 Dismantle pollution control berm	Lm each	100 0.50	\$ 9.78 \$ 227.84		\$ 1.50 \$ 227.84		9 2				0.5		0.5								1	source - SRK estimate
C.3.05 Demolish office buildings/ shop structures/ living quarters	m3	53.00	\$ 10.61		\$ 5.92						2	1	1									Demolish empty wood structures (offices, shacks, etc.)/ source - ECHOS
C.3.06 Demolish helipads/ float plane dock	m3	75	\$ 2.81		\$ 1.71						1		1									Demolish wood structure / source - SRK estimate
C.3.07 Demolish Above ground storage tanks	m3	5	\$ 242.92		\$ 48.44						1		1								1	
C.3.08 Dismantle Old Equipment (torch) C.3.08 Cut off top of drill casings	each	0.5	\$ 446.92 \$ 54.77		\$ 341.76 \$ 28.48															1		
C.3.10 Clean up debris from site	each m2	2.00 2529	\$ 0.13		\$ 0.10						1		1							1		source - SRK estimate
C.3.11 Dismantle radio tower	each	0.04	\$ 14,052.00		\$ 9,612.00			1		1	1		1									source - SRK estimate
C.3.12 Prep stacks for shipping	m	0.50	\$ 421.16		\$ 256.56		0 1				1		1									Estimate
C.3.13 Dismantle Power Generator Stacks	m	0.50	\$ 113.92		\$ 113.92		1															
C.3.14 Removing Cables and Posts C.3.15 Remove Tank Insullation	each each	1.00 0.30	\$ 370.24 \$ 646.73		\$ 185.24 \$ 379.73					+	1		1	1								
C.3.16 Remove pipes, ducts, and electrical cables	m	2.00	\$ 99.59		\$ 99.59		2	1						1								
C.3.17 Remove waste from Doris Mountain (helicopter support)	m3	1.00	\$ 2,343.92		\$ 243.92	\$ 2,100.00	0 2			1							1					
Material Relocations																						
C.4.01 Load demolition debris/solid waste in containers C.4.02 Empty Seacan of debris at the landfill	m3	48.00 5.7	\$ 8.16 \$ 86.55		\$ 2.97 \$ 24.98						2	1 1	1									source - SRK calculated from first principles
C.4.02 Empty Seacan of debris at the landfill C.4.04 Haul waste to Roberts Bay jetty in 20 ft container (33.2 m3/container)	each m ³	59.67	\$ 2.31		\$ 24.98						1	1	1		1							Productivity calculation shown on 'Relocation Unit Cost' Worksheet
C.4.06 Haul Containers on skids from beach laydown to Roberts Bay Jetty	each	1.20	\$ 198.18								1	1										,
C.4.07 Haul Material From Doris Windy Road to Roberts Bay	m ³	36.31	\$ 3.79								1				1							Productivity calculation shown on 'Relocation Unit Cost' Worksheet
C.4.08 Haul Material From North Dam To Roberts Bay	m ³	51.64	\$ 2.66		7					1	1				1							Productivity calculation shown on 'Relocation Unit Cost' Worksheet
C.4.09 Haul Material From Reagent Pad To Roberts Bay C.4.10 Haul Mateiral From Airstrip to Roberts Bay	m ³	66.90 75.48	\$ 2.06 \$ 1.82		\$ 0.98 \$ 0.87					+ -	1			+ +	1							Productivity calculation shown on 'Relocation Unit Cost' Worksheet Productivity calculation shown on 'Relocation Unit Cost' Worksheet
C.4.11 Haul Mateiral to Jetty (Roberts Bay)	m ³	85.74	\$ 1.60		\$ 0.77						1				1							Productivity calculation shown on 'Relocation Unit Cost' Worksheet
C.4.12 Load soils into megabags	m ³	4.00	\$ 65.75		\$ 44.93						1		0.45									
Earth works																				, ,		
C.5.01 Install HDPE Liner	m ²	175	\$ 31.70		\$ 1.71					+ -	1 2	4	1	1 .								
C.5.02 Load, haul, dump, place: 1 truck with <0.5 km haul distance C.5.03 Load, haul, dump, place: 1 truck with <1.0 km haul distance	m³ m³	40 30	\$ 17.47 \$ 23.29		\$ 5.21 \$ 6.95					+ -	1 2	1	1						1			
C.5.04 Excavate: Spoil locally, no trucks	m ³	100	\$ 2.56		\$ 0.71						1 1	1	1		-							
C.5.05 Regrade surface - rough grading, D7	m²	100	\$ 2.38		\$ 0.71						1	1										
C.5.06 Reslope Stockpiles - D7	m ³	75	\$ 3.17	\$ -	\$ 0.95	\$ 2.2	2				1	1										
C.5.07 Relocate core box pallet (<0.5 km)	ea	6	\$ 35.10		\$ 21.38		_				1		1									
C.5.08 Install soil stabilization measures (straw/coconut matting)	m ²	269	\$ 4.05							0.5	2		1 1	+					1			
C.5.09 Drill, blast Quarry	m ³	65 100	\$ 30.01							0.5	1 2			+ + .				1	1			
C.5.10 Trackpack using loaded rock truck C.5.11 Scaling (loose rock)	hr	100	\$ 2.05 \$ 256.32		\$ 0.66 \$ 71.32	\$ 1.3				+ -	1 1		1	 	-							
C.5.12 Load, haul, dump place: 2 trucks with <1.0km haul distance	m ³	75	\$ 12.04		\$ 3.66						2 2				!							
C.5.13 Seeding/Fertilizing: By hand, high application rate	m ²	320	\$ 0.77				3				0											
C.5.14 Summer identification of low-lying areas	day	0.08	\$ 6,627.52		\$ 2,243.52	\$ 4,284.0				1							0.17					
C.5.15 Remove culvert and create swale	lm m ³	5	\$ 87.05							0.5	1		1	1 .								
C.5.16 Load, haul, dump, 2 trucks<0.5 km haul distance C.5.17 Crown road	m ³	80 0.25	\$ 8.32 \$ 985.38						0.1	+	2 1		1	+ +	!							
Other	NIII	0.23	y 203.36	,	y 313.38	0.00.0			5.1		1	1										
C.6.01 Sample HC contaminated soils / confirmatory samples	each	2	\$ 93.48	\$ -	\$ 93.48	\$ -	1			1												
C.6.02 Band together core pallets	each	12	\$ 9.49		\$ 9.49		2		0		0	0										
C.6.03 Construction of Vent Raise Seal	each	0.042	\$ 12,064.56	\$ 3,000.00	\$ 8,076.96	\$ 987.60	0 3			1	0.5		0.5				1		1			

Doris_ClosureCostEstimate_1CH008.069_Rev21_TanksDemolished_SA_IM_BC_trs_IM_sw

Worksheet 5: Relocation Unit Cost Calculations

Hauling Distance to Roberts Bay		
Doris Camp	5.3 km	One Way
Windy Camp	14.82 km	One Way
North Dam	7.6 km	One Way
Reagent Pads	3.7 km	One-Way
Airstrip	2.2 km	One-Way

C.4.03 - Productivity of hauling	bulk	material	s on skids a	t Roberts Bay
By Skid - SnowCAT (equivalent to D7)				Note: Cost of winter road not included
Equipment Cost	\$	166.50	per hr	Includes fuel
Labour Cost	\$	71.32	per hr	
Average speed		9	km/hr	Sleds assumed as being available on site
Hauling capacity		2	skids	One container per skid
Load		1	container	
Distance:		1.5	km	
Time Required 1 round trip:		0.83	hrs	Includes 0.5hr unloading time
Productivity:		1.20	skid/hr	

C.4.04 - Productivity of haulin	g bulk m	aterial	s from Dori	is North to Roberts Bay	
Equipment Cost	\$	71.78	per hr	Includes fuel	
Labour Cost	\$	85.26	per hr		
Average speed		38	km/hr	Sleds assumed as being available on site	
Hauling capacity		2	Containers	One container per skid	
Cargo capacity		33.2	m ³	Standard 20 ft container	
Space utilization ratio		0.7			
Load		46.48	m ³	CargoCapacity x #ofContainers x SpaceUtilizationRatio	
Distance:		5.3	km		
Time Required 1 round trip:		0.78	hrs	Includes 0.5hr unloading time	
Productivity:		59.67	m³/hr		

85.26 38	per hr per hr km/hr Containers m ³	Includes fuel Sleds assumed as being available on site One container per skid Standard 20 ft container	
38 2 33.2	km/hr Containers	One container per skid	
33.2	Containers	One container per skid	
33.2		·	
	m ³	Standard 20 ft container	
0.7			
0.7			
46.48	m^3	CargoCapacity x #ofContainers x SpaceUtilizationRatio	
14.82	km		
1.28	hrs	Includes 0.5hr unloading time	
36.31	m³/hr		
	1.28	14.82 km 1.28 hrs 36.31 m³/hr	1.28 hrs Includes 0.5hr unloading time

Tractor trailer with Lowboy, 2x20 f	t seacans per	trip			
Equipment Cost	\$	71.78	per hr	Includes fuel	
Labour Cost	\$	85.26	per hr		
Average speed		38	km/hr	Sleds assumed as being available on site	
Hauling capacity		2	Containers	One container per skid	
Cargo capacity		33.2	m^3	Standard 20 ft container	
Space utilization ratio		0.7			
Load		46.48	m^3	CargoCapacity x #ofContainers x SpaceUtilizationRatio	
Distance:		7.6	km		
Time Required 1 round trip:		0.90	hrs	Includes 0.5hr unloading time	
Productivity:		51.64	m³/hr		

Tractor trailer with Lowboy, 2x20	ft seacans per	trip			·
Equipment Cost	\$	71.78	per hr	Includes fuel	
Labour Cost	\$	85.26	per hr		
Average speed		38	km/hr	Sleds assumed as being available on site	•
Hauling capacity		2	Containers	One container per skid	
Cargo capacity		33.2	m ³	Standard 20 ft container	
Space utilization ratio		0.7			
Load		46.48	m^3	CargoCapacity x #ofContainers x SpaceUtilizationRatio	
Distance:		3.7	km		
Time Required 1 round trip:		0.69	hrs	Includes 0.5hr unloading time	
Productivity:		66.90	m³/hr		

C.4.10 - Productivity of hauling b	ulk material	s Airstrip to	o Roberts Bay	
Tractor trailer with Lowboy, 2x20 ft seacan	s per trip			
Equipment Cost	\$ 71.78	per hr	Includes fuel	
Labour Cost	\$ 85.26	per hr		
Average speed	38	km/hr	Sleds assumed as being available on site	
Hauling capacity	2	Containers	One container per skid	
Cargo capacity	33.2	m ³	Standard 20 ft container	
Space utilization ratio	0.7			
Load	46.48	m^3	CargoCapacity x #ofContainers x SpaceUtilizationRatio	
Distance:	2.2	km		
Time Required 1 round trip:	0.62	hrs	Includes 0.5hr unloading time	
Productivity:	75.48	m³/hr		

C.4.11 - Productivity of hauling	bulk materia	ls in Robert	s Bay	
Tractor trailer with Lowboy, 2x20 ft seace	ans per trip			
Equipment Cost	\$ 71.78	per hr	Includes fuel	
Labour Cost	\$ 85.26	per hr		
Average speed	38	km/hr	Sleds assumed as being available on site	
Hauling capacity	2	Containers	One container per skid	
Cargo capacity	33.2	2 m ³	Standard 20 ft container	
Space utilization ratio	0.7	7		
Load	46.48	m ³	CargoCapacity x #ofContainers x SpaceUtilizationRatio	
Distance:	0.0	km		
Time Required 1 round trip:	0.54	hrs	Includes 0.5hr unloading time	
Productivity:	85.74	m³/hr		

0---0-64

Worksheet 6: Structure Quantities

Demolition Bulking Factors
Tents - Emply 1.
Wood Structures - Femply 1.
Wood Structures - Winterior Wall Allowance
Steed Structures - Winterior Wall Allowance
Steed Structures - Winterior Wall Allowance
Week-thricial Equipment 1.
Liners
Jeppines

Structure Volumes												Floor						
•				MEAN (Pro ton)	Footprint					Roof Thickness	Wall Volume	Volume	n(Collapse	Loose Volume	Standing Volume	Surface area	£
Accomodation Complex	Portable Trailers	Quantity 64	17.6	Width/Dia. (m)	54.6	2.5	0.15	0.3	3.1	(m) 0.16	(m²) 15.525	(m³) 16.4	Roof Volume (m³) 8.7	2600	(m³) 305.45	(m²) 136.4	(m²)	Source As built ACAD, height/wall/roof thickness est. from design doc
	Building A to B Corridor Arctic Corridor Cabins	1	71.4 26.5 4.27	3.1 2 4.27	221.3 53.0 18.2	2.5 2.5 2.5	0.15 0.15 0.15	0.3 0.3 0.3	3.1 2 4.27	0.16 0.16 0.3	0 21.4 6.4	66.4 15.9 5.5	35.4 8.5 5.5	204 46	68.63 242.83	553.4 132.5 45.6		As built ACAD, height/wall/roof thickness est. from design doc As built ACAD, height/wall/roof thickness est. from photo
	Smoke Shack Tent	1 1	7.42	3.78	28.0	2.5	0.01	0.1	3.78	0.05	0.6	2.8	1.4	121 5 1	6.20	70.1 37.2		As built ACAD, height/wall/roof thickness est. from photo As built ACAD, height/wall/roof thickness est. from photo
Tools Form	Sea-can 20' Storage Sea-can	1	6.1 12.3	2.44 4.9	14.9 60.3	2.5 2.75	0.02 0.15	0.02	2.44 4.9	0.02	14.2	0.3 18.1	0.3 9.6	42	22.22	165.7	4000 5	As built ACAD, height/wall/roof thickness est. from photo As built ACAD, height/wall/roof thickness est. from photo
Tank Farm	Fuel Tanks Geotextile	5	-	14.6	167.4 11000.0	9.9	0.006	0.005		0.005	1.4 0.0	0.8 33.0	0.8	15 33	22.77 99.00	1657.4 0.0	1903.5	As built ACAD, thickness est. from design doc Fuel Tank Farm design doc
	Liner Pipes (Tanks to Fuel Station)	1	265	0.15	5500.0 0.018			0.003	_		0.0	16.5	0.0	17 5	49.50 14.05	0.0		Fuel Tank Farm design doc Rough Length Estimate based on Judgement (3" pipes)
	Pipes (Fire Suspension to Tanks) Containment Berm	1	265 278	0.15 5	0.018 962.000				_					5	14.05	0.0		Rough Length Estimate based on Judgement (3" pipes) As built Acad
Permanent Power Generator Temporary Power Generator	Extent of the Area Tent	1	35.54 21.61	59.19 12	2103.0 259.3	5	0.01	0.3	12.0	0.05	0.0 3.4	0.0 77.8	0.0 13.0	0 94	122.36	0.0 1296.6		As built Acad, height thickness est. from photo As built ACAD, thickness est. from photo
Sewage Treatment Plant	Sewage Sea-cans 40' Sewage Pipes	9	12.23 200	2.44 0.1	29.8 0.01	2.5	0.15	0.3	2.44	0.16	11.0	9.0	4.8	223	4.71	74.6 0.0		As built ACAD, est from photo Length est. from Piping As Built Doc, Diameter from Pipe Design Spec
Fire Water Storage Tank	Fresh Water Pipes Fire Water Tank	1	360	0.15 9.65	0.02 73.1	7.32	0.006	0.006		0.005	0.7	0.4	0.4	6	19.09 4.41	0.0 535.4	176.6	Length est. from Piping As Built Doc, Diameter from Pipe Design Spec As built AutoCad, height thickness est. from design doc
	Fire Water Pipes Pump House Sea-can	1	260 12.2	0.2032	0.03 29.8	2.5	0.15	0.3	2.44	0.16	11.0	8.9	4.8	8 25	25.29	0.0 74.4		Length est. from Piping As Built Doc, Diameter from Pipe Design Spec As built Acad, height/thickness est. from photo
Muster Station	Tent Wood flooring	1 1	14.76 14.76	6.16 6.16	90.9 90.9	2.5	0.01	0.3	6.16	0.05	1.0	0.0	4.5 0.0	6 27	7.27 35.46	227.3		As built Acad, height/thickness est. from photo
Warehouse/Core Shack	Sea-Can 20'	2	6.1	2.44	14.9	2.5	0.02	0.02	2.44	0.02	0.9	0.3	0.3	3		37.2		As built Acad, height/thickness est. from photo
warenouse/core snack	Tent Bent. Shack Tent	1	36.15 7.21	17.17 4.94	620.7 35.6	5 2.5	0.01 0.01	0.3	17.17 4.94	0.05	5.3 0.6	186.2 10.7	31.0 1.8	223 13	289.35 17.00	3103.5 89.0		As built Acad, height/thickness est. from photo As built Acad, height/thickness est. from photo
	Core Log Tent wood flooring, shelving, and lofts	1	7.21	4.94	35.6 310.3	2.5 0.3	0.01	0.3	4.94	0.05	0.6	10.7	1.8	13 93	17.00 186.21	89.0 93.1		As built Acad, height/thickness est. from photo Estimated
	Orbit Trailer Sea-can 20'	1 12	12.26 6.1	3.7 2.44	45.4 14.9	2.5 2.5	0.15 0.02	0.3	3.7 2.44	0.16	12.0 0.9	13.6 0.3	7.3 0.3	33 17		113.4 37.2		As built Acad, height/thickness est. from photo As built Acad, height/thickness est. from photo
	Sea-can 40" Geotech Trailer	5	12.23 12.26	2.44 3.7	29.8 45.4	2.5	0.02	0.02	2.44 3.7	0.02	1.5 12.0	0.6 13.6	0.6 7.3	13 33		74.6 113.4		As built Acad, height/thickness est. from photo As built Acad, height/thickness est. from photo
Offices/Mine Dry Complex	Contractor Tents Arctic Corridor	1	5.18 112.32	5.43 2.58	28.1 289.8	2.5 2.5	0.01	0.3	5.43 2.58	0.05 0.16	0.5 86.2	8.4 86.9	1.4 46.4	21 219	26.98 329.21	70.3 724.5		As built Acad, height/thickness est. from photo As built Acad, height/thickness est. from photo
	Mine Dry Admin	1	40 40.44	23.92 12.72	956.8 514.4	5 5	0.15 0.15	0.3	23.92 12.72	0.16 0.16	95.9 79.7	287.0 154.3	153.1 82.3	536 316	1072.02 632.73	4784.0 2572.0		As built Acad, height/thickness est. from photo As built Acad, height/thickness est. from photo
	Office Sea-can 20"	1 11	14.96 6.1	14.72 2.44	220.2 14.9	5 2.5	0.15 0.02	0.3	14.72 2.44	0.16 0.02	44.5 0.9	66.1 0.3	35.2 0.3	146 16	291.63	1101.1 37.2		As built Acad, height/thickness est. from photo As built Acad, height/thickness est. from photo
Temporary Water Management Pond	Sea-can 40"	3	12.23	2.44	29.8 3307.0	2.5	0.02	0.02	2.44	0.02	1.5	0.6	0.6	8 6614		74.6 6614.0		As built Acad, height/thickness est. from photo
reinpolary water management Pond	Liner Containment Berm Volume	1 1	294	3.65	5617.0 1073.1	2.07		0.003			0.0	16.9	0.0	17	50.55	0.0		
Portal & UG Works	Extent	1			1446.0											0.0		
Underground Wash Bay	Plug Tent	1	15 15.6	7.6 9.96	114.0 155.4	6.2 5	0.01	0	12	0.05	2.6	0.0	9.4	707 12	918.84 15.49	706.8 776.9		Estimated est. from photo
	Sea-cans 20" Sea-can 40"	24 3	6.1 12.23	2.44	14.9 29.8	2.5 2.5	0.02	0.02	2.44	0.02	0.9 1.5	0.3	0.3	35 8		37.2 74.6		est. from photo est. from photo
Swick Shop Water Intake Structure and Pumping Facility	Tent	1	24.53	9.34	229.1 0.0	3.75	0.01	0	9	0.05	2.5 0.0	0.0	11.0 0.0	14 0	17.65 3.00	859.2 0.0		est. from photo Estimate
Sedimentation Pollution Control Pond	Geotextile Liner	1 1			8200.0 2000.0			0.003						25 6	0.00	0.0		Design Documents
	RO plant Sea-can 40" Sedimentation Pond Backfill	4	12.23	2.44	29.8 1293.0	2.5	0.02	0.003	2.44	0.02	1.5	0.6	0.6	11		74.6 1293.0		Design bucuments As built Acad, height/thickness est. from photo 1 m thick thermal cover
	Breach Volume (Sedimentation) Breach Volume (Pollution)	1 1	23 23	18 18	414.0 414.0	3.4 2.9										1407.6 1200.6	13.8 13.8	
UG Mechanical Shop	Shop building	1	24.84	18.37	456.3	5	0.15	0.3	12.72	0.16	64.8	136.9	50.6	252	756.79	2281.6	13.0	est. from photo
	Sea-can 20" Sea-can 40"	10 6	6.1 12.23	2.44 2.44	14.9 29.8	2.5 2.5	0.02 0.02	0.02 0.02	2.44	0.02	0.9 1.5	0.3	0.3 0.6	14 16		37.2 74.6		est. from photo est. from photo
Helipads	Helipads Heli Building 1	6	7.27 8	4.13 5.11	30.0 40.9	0.5 2.5	0.15	0.4	5.11	0.16	0.0 9.8	0.0 16.4	0.0 6.5	15 102	15.01 204.40	15.0 102.2		Foot Print AutoCad, height thickness est. from photo As built Acad, height/thickness est. from photo
	Heli Building 2 Office	1 1	5.05 7.45	2.95 4.54	14.9 33.8	2.5	0.15 0.15	0.4	2.95 4.54	0.16	6.0 9.0	6.0	2.4	37 85	74.49 169.12	37.2 84.6		As built Acad, height/thickness est. from photo As built Acad, height/thickness est. from photo
	Lift Station	1	5.89	2.45	14.4	2.5	0.15	0.4	4.54	0.16	6.3	5.8	4.3	36	72.15	36.1		As built Acad, height/thickness est. from photo
Frash Water Dinelines	Washcar Sea-cans 20"	10	3.23 6.1 830	6.24 2.44	20.2 14.9	2.5 2.5	0.15 0.02	0.4	6.24 2.44	0.16	7.1 0.9	8.1 0.3	3.2 0.3	50 37 21	100.78	50.4 37.2 0.0		As built Acad, height/thickness est. from photo
Fresh Water Pipelines Waste Rock Pile	Piping Pile	1		0.18	0.03 13396.88										63.36	0.0		As built Acad
Ore Pile	Liner Cover Extent	1	278 74.5	13.42 47.2	17127.64 3516.40	0.3								5138		5138.3 0.0		As built Acad As built Acad
Sewage Discharge Pipelines	Liner Cover Piping	1	236 1190	8.9 0.18	5616.80 0.03									30	90.85	0.0		As built Acad
Sedimentation Berm Run-off Diversion Berm	Berm Breach (Berm)	1 4	77 10	8 6.3	617.00 63.00	1 1.5										24.0 378.0	3.6	As built Acad
	Cutt-off Sections Liner	4 4	2	4.2	33.60 33.60			0.003						0.10	0.30	0.0		Estimate Estimate
Sumps	Sump 1 & 2	2	2	3	7.07	2		0.003						0.10	0.30	28.3		Estimate
Drainage channel		1	295	2												881.8	590.0	from Global Mapper Cut/Fill volumes
Camp Pads		1			152044.00												152044.0	from Interim Water Management Plan
Roberts Bay Jetty	Rock fill removal	1	39	26.8	1045.2	0.97										0.0 1013.8		Jetty As-built estimate
RB Tank Farm	Fuel Tanks Geotextile	3	-	25.76	521.2 20600.0	9.75	0.006	0.005		0.005	2.4	2.6	2.6	23 62	34.10 185.40	5081.4	3369.8	Fuel Tank Farm design doc/ photos
	Liner Pipes (Tanks to Fuel Station)	1	110	0.15	10300.0 0.018			0.003	1					31 2	92.70 5.94	0.0		Nuna As built Acad est Nuna As built Acad est
Q1 Tank Farm (old)	Containment Berm (breach) Fuel tank	1 1	11.8	19.6 25.76	231.280 521.2	2.9 9.75	0.006	0.005		0.005	2.4	2.6	2.6	8	11.37	670.7 5081.4	1122.2	As Built drawing As built Acad, height/thickness est. from photo
Q1 Talik Fatti (Olu)	Geotextile	1		23.70	13042.0	5.73	0.000	0.003		0.003	2.4	2.0	2.0	39	117.38		1125.5	estimated from As built Acad
	Liner Pipes (Tank to Fuel Station)	1	75	0.15	6521.0 0.018			0.003						20	58.69 4.05	0.0		As built Acad, est. from photo
	Empty fuel drums Sea-cans 20"	150 40	6.1	0.6 2.44	0.283 14.9	0.15 2.5	0.02	0.02	2.44	0.02	0.9	0.3	0.3	0.04 58	0.06	37.2		As built Acad, est. from photo
	Fuel Transfer Facitility Trailers Containment Berm (breach)	1	12.24 25.86	3.4 10.8	41.6 279.3	2.5 1.8	0.15	0.3	3.4	0.16	11.7	12.5	6.7	62		104.0 502.7		As built Acad, est. from photo
Mechanical Shop Complex	Nuna Shop Tent	1	15.58 11.58	30.84 7.95	480.5 92.1	5 5	0.15 0.15	0.3	31 31	0.16 0.16	69.6 29.3	144.1 27.6	77.3 57.4	291 114	582.11 148.66	2402.4 460.3		Nuna As built Acad est, height/thickness Photo Est. Nuna As built Acad est, height/thickness Photo Est.
	Trailers Site Service Shack	3	12.09 11.8	2.4 9.6	29.0 113.3	2.5 2.5	0.15 0.15	0.3	2.4 9.6	0.16 0.16	10.9 16.1	8.7 34.0	4.6 18.1	73 68	136.32	72.5 283.2		Nuna As built Acad est, height/thickness Photo Est. Nuna As built Acad est, height/thickness Photo Est.
	Sea-can 20" Sea-can 40"	28 12	6.1	2.44	14.9 29.8	2.5 2.5	0.02	0.02	2.44 2.44	0.02	0.9	0.3	0.3	41		37.2 74.6		Nuna As built Acad est, height/thickness Photo Est. Nuna As built Acad est, height/thickness Photo Est.
Waste Management Facility	Facility Sea-can 20"	1 11	12.23	10.52 2.44	128.7 14.9	2.5 2.5	0.02 0.15 0.02	0.3 0.02	10.52 2.44	0.16 0.02	17.1	38.6 0.3	20.6 0.3	76 16	152.49	321.6 37.2		Nuna As built Acad est, height/thickness Photo Est. Nuna As built Acad est, height/thickness Photo Est. Nuna As built Acad est, height/thickness Photo Est.
Laydown Area	Pad Sea-can 20"	11	6.1	2.44	24491.6 14.9	2.5	0.02	0.02	2.44	0.02	0.9	0.3	0.3	16		0.0 37.2		Nuna As built Acad est, height/thickness Photo Est.
Overburden Dump			0.1	2.44	10448.0	2.5	0.02	0.02	2.44	0.02	0.9	0.3	0.3	10		0.0		Nuna As built Acad est, height/thickness Photo Est.
Fuel Transfer Road Communication Tower	Road Tower	1	1.7	1.7	3378.0 1.4	10	0.05	0.05	1.70	0.05	3.4	0.1	0.1	4	5.53	0.0 14.5		Nuna As built Acad est, height/thickness Photo Est.
Beach Laydown Area	Shack Magazines	5	12.17	4.5	54.8				_		0.0	0.0	0.0	0		0.0		Nuna As built Acad est, Photo Est.
Orbit Drill Shop	Shop Tent Sea-can 20"	1 12	9.26 6.1	15.23 2.44	141.0 14.9	5 2.5	0.01	0.1	15.2 2.44	0.05	2.4 0.9	14.1	7.1 0.3	24 17	30.68	705.1 37.2		Nuna As built Acad est, height/thickness Photo Est. Nuna As built Acad est, height/thickness Photo Est.
Airstrip	Sea-can 40"	2	12.23	2.44	29.8	2.5	0.02	0.02	2.44	0.03		0.6		5		74.6		
Airstrip	Ground Lighting fixtures		1900	0.025	68475.0					0.02	1.5		0.6			0.0		Nuna As built Acad est, height/thickness Photo Est.
South Apron North Apron		1	1500		47.5	0.025				0.02	1.5		0.6			0.0 0.0		Nuna As built Acad, photo est
жолы жүнөн	Wood Shack Portable Trailers				5517.2	0.025	0.45	0.2				2.7		42	17.50	0.0 1.2 0.0		Nuna As built Acad, photo est Nuna As built Acad, photo est
Explosives Mixing Facility	Fortable Hallers	1	5 8	2.44 3.1	5517.2 12.2 24.8	2.5 2.5	0.15 0.15	0.3	3.1	0.16 0.16	5.6 8.3	3.7	2.5 4.0	12 20	17.58	0.0 1.2 0.0 30.5 62.0		Nura As built Acad, photo est
	Sea-can 20" Prill Tent	1 1 1	6.1 9.41	2.44 3.1 2.44 9.13	5517.2 12.2 24.8 14.9 85.9	2.5 2.5 2.5 5	0.15 0.02 0.01	0.3 0.02 0.3	3.1 3.1 2.44 9.1	0.16 0.16 0.02 0.05	5.6 8.3 0.9 1.9	7.4 0.3 25.8	2.5 4.0 0.3 4.3	20 1 32	41.50	0.0 1.2 0.0 30.5 62.0 37.2 429.6		Nona As bailt Acad, photo est
	Sea-can 20" Prill Tent Washbay Shed	1 1 1 1 1 1	9.41 9.31 1.78	2.44 3.1 2.44 9.13 5.05 2.54	5517.2 12.2 24.8 14.9 85.9 47.0 4.5	2.5 2.5 2.5 5 5 5	0.15 0.02 0.01 0.16 0.15	0.3 0.02 0.3 0.3	3.1 3.1 2.44 9.1 5.1 2.5	0.16 0.16 0.02 0.05 0.16 0.16	5.6 8.3 0.9 1.9 23.0 3.2	7.4 0.3 25.8 14.1 1.4	2.5 4.0 0.3 4.3 7.5 0.7	20 1 32 45 5		0.0 1.2 0.0 30.5 62.0 37.2 429.6 235.1 11.3		Nuna As bailt Acad, photo est
	Sea-can 20" Prill Tent Washbay	1 1 1 1 1 6	6.1 9.41 9.31	2.44 3.1 2.44 9.13 5.05	5517.2 12.2 24.8 14.9 85.9 47.0	2.5 2.5 2.5 5 5	0.15 0.02 0.01 0.16	0.3 0.02 0.3 0.3	3.1 3.1 2.44 9.1 5.1	0.16 0.16 0.02 0.05 0.16	5.6 8.3 0.9 1.9 23.0	7.4 0.3 25.8 14.1	2.5 4.0 0.3 4.3 7.5	20 1 32 45	41.50 66.90	0.0 1.2 0.0 30.5 62.0 37.2 429.6 235.1 11.3 37.2 0.0		Nova As built Acad, photo est
Reagent Pads Equipment Laydown	Sea-can 20" Prill Tent Washbay Shed		9.41 9.31 1.78	2.44 3.1 2.44 9.13 5.05 2.54	5517.2 12.2 24.8 14.9 85.9 47.0 4.5 14.9	2.5 2.5 2.5 5 5 5	0.15 0.02 0.01 0.16 0.15	0.3 0.02 0.3 0.3	3.1 3.1 2.44 9.1 5.1 2.5	0.16 0.16 0.02 0.05 0.16 0.16	5.6 8.3 0.9 1.9 23.0 3.2	7.4 0.3 25.8 14.1 1.4	2.5 4.0 0.3 4.3 7.5 0.7	20 1 32 45 5	41.50 66.90	0.0 1.2 0.0 30.5 62.0 37.2 429.6 235.1 11.3 37.2 0.0		Noura As Dulli Arcad, photo est
Equipment Laydown Material Laydown	See-can 20" Prill Tent Washbay Shed See-can 20"		9.41 9.31 1.78	2.44 3.1 2.44 9.13 5.05 2.54	5517.2 12.2 24.8 14.9 85.9 47.0 4.5	2.5 2.5 2.5 5 5 5	0.15 0.02 0.01 0.16 0.15	0.3 0.02 0.3 0.3	3.1 3.1 2.44 9.1 5.1 2.5	0.16 0.16 0.02 0.05 0.16 0.16	5.6 8.3 0.9 1.9 23.0 3.2	7.4 0.3 25.8 14.1 1.4	2.5 4.0 0.3 4.3 7.5 0.7	20 1 32 45 5 9	41.50 66.90 7.98	0.0 1.2 0.0 30.5 62.0 37.2 429.6 235.1 11.3 37.2 0.0		Nouva As built Acad, photo est
Equipment Laydown	Ses-can 20" Prill Tent Washbay Shed Ses-can 20" Extent Liner	1	6.1 9.41 9.31 1.78 6.1	2.44 3.1 2.44 9.13 5.05 2.54 2.44	5517.2 12.2 24.8 14.9 85.9 47.0 4.5 14.9 21870.0 33839.8 2800.0	2.5 2.5 2.5 5 5 5 2.5 2.5 2.5	0.15 0.02 0.01 0.16 0.15	0.3 0.02 0.3 0.3 0.3 0.02	3.1 3.1 2.44 9.1 5.1 2.5	0.16 0.16 0.02 0.05 0.16 0.16	5.6 8.3 0.9 1.9 23.0 3.2	7.4 0.3 25.8 14.1 1.4	2.5 4.0 0.3 4.3 7.5 0.7	20 1 32 45 5	41.50 66.90	0.0 1.2 0.0 30.5 62.0 37.2 429.6 235.1 11.3 37.2 0.0 0.0 0.0		Nova As built Acad, photo est
Equipment Laydown Material Laydown	See can 20" Pitil Tent Washbay Shed See can 20" Extent Liner Containment Berm Dittil Shop	1 1 1	6.1 9.41 9.31 1.78 6.1 6.34 15.24	2.44 3.1 2.44 9.13 5.05 2.54 2.44	5517.2 12.2 24.8 14.9 85.9 47.0 4.5 14.9 21870.0 33839.8 3858.0 2800.0 141.7	2.5 2.5 2.5 5 5 2.5 2.5 2.5 2.5 3 3 3 3 5	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.02 0.3 0.3 0.3 0.02 0.02	3.1 3.1 2.44 9.1 5.1 2.5 2.44	0.16 0.16 0.02 0.05 0.16 0.16 0.12	5.6 8.3 0.9 1.9 23.0 3.2 0.9	7.4 0.3 25.8 14.1 1.4 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3	20 1 32 45 5 9	41.50 66.90 7.98	0.0 1.2 0.0 30.5 62.0 37.2 425.6 235.1 11.3 37.2 0.0 0.0 0.0 0.0 0.0 0.0 149.6		Nova As built Acad, photo est
Equipment Laydown Material Laydown Ammonium Nitrate Storage Area	Sea can 20" Pivil Tent Washbay Shed Sea Can 20" Extent Liner Containment Berm Containment Berm Omis Shop Sea can 20" Fent	1 1 1 13 1	6.1 9.41 9.31 1.78 6.1 6.34 15.24 6.1 18.36	2.44 3.1 2.44 9.13 5.05 2.54 2.44 0.5 9.3 2.44	5517.2 12.2 24.8 14.9 85.9 47.0 4.5 14.9 21870.0 33839.8 3858.0 2800.0 2800.0 141.7 14.9 214.4	2.5 2.5 2.5 5 5 2.5 2.5 2.5 3 3 3 4 3 5 5 2.5 2.5 2.5 2.5 3 3 3 5 3 5 3 5 3 5 5 5 5 5 5 5 5 5 5	0.15 0.02 0.01 0.16 0.15 0.02	03 0.02 0.3 0.3 0.3 0.02 0.02	3.1 3.1 2.44 9.1 5.1 2.5 2.44 2.44 2.44	0.16 0.16 0.02 0.05 0.16 0.16 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9	7.4 0.3 25.8 14.1 1.4 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3	20 1 32 45 5 9 1157 8	41.50 66.90 7.98 1504.62 25.20	0.0 1.2 0.0 30.5 62.0 37.2 429.6 235.1 11.3 37.2 0.0 0.0 0.0 0.0 0.0 0.0 840.0 149.6 37.2		Nona As built Acad, photo est
Geojament Lupdown Material Lupdown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Wastarc Drill Shop Wastar Chrill Shop	Sea can 20" Pitil Tent Washbay Shed Sea can 20" Extent Liner Containment Berm Ontil Shop Sea can 20" Fent Sea can 20"	1 1 1 1 13 1 10	6.1 9.41 9.31 1.78 6.1 6.3.4 15.24 6.1	2.44 3.1 2.44 9.13 5.05 2.54 2.44	5517.2 12.2 14.9 14.9 14.9 14.5 14.9 21870.0 21870.0 23839.8 3838.0 2800.0 141.7 14.9 14.9	2.5 2.5 2.5 5 5 2.5 2.5 2.5 3 3 3 3 3 3 3 5 2.5 2.5 2.5 2.5 2.5 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.02 0.3 0.3 0.3 0.02 0.02 0.003	3.1 3.1 2.44 9.1 5.1 2.5 2.44	0.16 0.16 0.02 0.05 0.16 0.10 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9	7.4 0.3 25.8 14.1 1.4 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3	20 1 32 45 5 9 1157 8	41.50 66.90 7.98 1504.62 25.20 12.40	0.0 1.2 0.0 30.5 62.0 37.2 429.6 225.1 11.3 37.2 0.0 0.0 0.0 0.0 0.0 0.0 840.0 149.6 37.2 180.2 37.2		Nova As built Acad, photo est Nova A
Equipment Laydown Material Laydown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop	See can 20" Piril Tent Washbay Shed See can 20" Saters Liner Containment Berm Diril Shop See can 20" Feet See can 20" Liner L	1 1 1 1 1 1 10	6.1 9.41 9.31 1.78 6.1 6.34 15.24 6.1 18.36 6.1	2.44 3.1 2.44 9.13 5.05 2.54 2.44 0.5 9.3 2.44 11.68 2.44	5517.2 12.2 24.8 14.9 85.9 47.0 4.5 14.9 21870.0 21870.0 23839.8 3858.0 2800.0 141.7 14.9 214.4 14.9	2.5 2.5 2.5 5 5 2.5 2.5 2.5 3 3 3 4 3 5 5 2.5 2.5 2.5 2.5 3 3 3 5 3 5 3 5 3 5 3 5 3 5 3 5 3 5 3	0.15 0.02 0.01 0.16 0.15 0.02	03 0.02 0.3 0.3 0.3 0.02 0.02	3.1 3.1 2.44 9.1 5.1 2.5 2.44 2.44 2.44	0.16 0.16 0.02 0.05 0.16 0.16 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9	7.4 0.3 25.8 14.1 1.4 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3	20 1 32 45 5 9 1157 8	41.50 66.90 7.98 1504.62 25.20	0.0 1.2 0.0 30.5 62.0 37.2 429.6 235.1 11.3 37.2 0.0 0.0 0.0 0.0 0.0 0.0 840.0 149.6 37.2 180.2 37.2 0.0 0.0		Nona As built Acad, photo est
Geojament Lupdown Material Lupdown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Wastarc Drill Shop Wastar Chrill Shop	Sex cars 20" Pivil Tent Washbay Dhed Sex cars 20" Containment Berm Containment Berm Diris Shop Sex cars 20" Tent Tent Liner Li	1 1 1 1 13 1 10	6.1 9.41 9.31 1.78 6.1 6.34 15.24 6.1 18.36	2.44 3.1 2.44 9.13 5.05 2.54 2.44 0.5 9.3 2.44	5517.2 12.2 24.8 14.9 85.9 47.0 45.1 14.9 21870.0 21870.0 22870.0 2800.0 141.7 14.9 2800.0 141.7 14.9 2800.0 3011.2 740.3	2.5 2.5 2.5 5 5 2.5 2.5 2.5 3 3 3 4 3 5 5 2.5 2.5 2.5 2.5 3 3 3 5 3 5 3 5 3 5 3 5 3 5 3 5 3 5 3	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.02 0.3 0.3 0.3 0.3 0.02 0.02 0.003 0.003 0.003 0.003 0.003 0.003	3.1 3.1 2.44 9.1 5.1 2.5 2.44 2.44 2.44	0.16 0.16 0.02 0.05 0.16 0.16 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9	7.4 0.3 25.8 14.1 1.4 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3	20 1 32 45 5 9 1157 8 10 19 14 14	41.50 66.90 7.98 1504.62 25.20 12.40 17.84	0.0 1.2 0.0 0.0 30.5 62.0 37.2 429.6 235.1 11.3 37.2 0.0 0.0 0.0 0.0 0.0 0.0 149.6 37.2 180.2 37.2 180.2		Nova As built Acad, photo est
Geolginent Laydown Marierial Laydown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Orill Shop Waste Management Area Land Farm Batch Flant bad Parts Pan Deutry EZ	Sea can 20" Piril Tent Washbay Shed See-can 20" Extent Liner Containment Berm Dini Shop Sea-can 20" Tent Sea can 20" Liner New cone 20" Liner New cone 20" Containment Berm Non-woven Geotestile Containment Berm	1 1 1 1 13 1 10 10	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.3 4 15.24 6.1 18.36 6.1	2.44 3.1 2.44 9.13 5.05 5.05 2.54 2.44 0.5 0.5 9.3 2.44 33.72 2.02 2.71	5517.2 12.2 24.8 14.9 85.9 47.0 21870.0 33839.8 3385.0 2800.0 141.7 14.9 214.4 14.9 214.4 14.9 214.4 14.9 214.4 14.9 214.4 214.9 214.4 214.9 214.8 214.9 216.9	2.5 2.5 2.5 5 5 5 2.5 2.5 2.5 2.5 2.5 2.	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.02 0.3 0.3 0.3 0.02 0.02 0.003	31 31 244 91 51 25 244 244 244 117 244	0.16 0.16 0.02 0.05 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 0.9 0.9	7.4 0.3 25.8 14.1 1.4 0.3 0.0 0.0 0.3 0.0 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3 10.7	20 1 32 45 5 9 1157 8 10 10 14 14 14 13 26	41.50 66.90 7.98 1504.62 25.20 12.40 17.84	0.0 1.2 0.0 0.0 30.5 62.0 425.6 425.6 111.3		Nova As built Acad, photo est Nova As built Acad, design document est Nova As built Acad, photo est
Ceujament Luydown Makerial Luydown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant Pad Purn Pan Quarry 82 Crusher	Sea can 20" Piril Tent Washbay Shed See can 20" Extent Liner Containment Berm Dinil Shop Sea can 20" Tent Sea can 20" Containment Berm Tent Non-woven Genderite Containment Berm Tent Non-woven Genderite Containment Berm	1 1 1 1 1 1 1 10 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 15.24 6.1 18.36 6.1 8.9.3 36.65	2.44 3.1 2.44 9.13 5.05 2.54 2.44 0.5 9.3 2.44 11.68 2.44	5517.2 12.2 24.8 14.9 85.9 47.0 4.5 14.9 21870.6	25 25 25 5 5 5 22 25 25 25 25 25 25 25 2	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.02 0.3 0.3 0.3 0.3 0.02 0.02 0.003 0.003 0.003 0.003 0.003 0.003	31 31 244 91 51 25 244 244 244 117 244	0.16 0.16 0.02 0.05 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9 2.5 0.9 3.0 0.9	0.0 0.3 14.1 1.4 0.3 0.0 0.0 0.3 0.0 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3 10.7	20 1 32 45 5 9 1157 8 10 19 14 14 13 26	41.50 66.90 7.98 1504.62 25.20 12.40 17.84 39.46 78.91	0.0 1.2 0.0 0.0 30.5 62.0 37.2 423.6 11.3 37.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		Nova As built Aread, photo est
Ceujament Lupdown Makerial Lupdown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Wastar Drill Shop Wastar Drill Shop Wastar Drill Shop Wastar Management Area Lund Farm United Shop Davier Pad Purn Pan Quarre #2 Crusher Overburden Drump Treated Sewage Discharge Areas	Sec can 20" Pivil Tent Weshbay Shed Sec can 20" Extent Liner Diri Syno Sec can 20" Extent Liner	1 1 1 1 13 1 10 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.3 4 15.24 6.1 18.36 6.1	2.44 3.1 2.44 9.13 5.05 5.05 2.54 2.44 0.5 0.5 9.3 2.44 33.72 2.02 2.71	5517.2 12.2 24.8 14.9 85.9 47.0 21870.0 33839.8 3385.0 2800.0 141.7 14.9 214.4 14.9 214.4 14.9 214.4 14.9 214.4 14.9 214.4 214.9 214.4 214.9 214.8 214.9 216.9	25 25 25 5 5 5 22 25 25 25 25 25 25 25 2	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.02 0.3 0.3 0.3 0.3 0.02 0.02 0.003 0.003 0.003 0.003 0.003 0.003	31 31 244 91 51 25 244 244 244 117 244	0.16 0.16 0.02 0.05 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9 2.5 0.9 3.0 0.9	0.0 0.3 14.1 1.4 0.3 0.0 0.0 0.3 0.0 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3 10.7	20 1 32 45 5 9 1157 8 10 19 14 14 13 26	41.50 66.90 7.98 1504.62 25.20 12.40 17.84 39.46 78.91	0.0 1.2 0.0 0.0 30.5 62.0 425.3 425.3 111.3 172.2 0.0 0.0 0.0 0.0 0.0 0.0 190.0 190.0 190.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		Nova As built Acad, photo est Nova As built Acad, design document est Nova As built Acad, photo est
Geolginent Laydown Makerial Laydown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant bd Plant Bn Qurry #2 Crusher Coveburden Drump	Sec can 20" Pivil Tent Washibay Died Sec can 20" Containment Berm Containment Berm Diris Shop Sec can 20" Tent Liner Lin	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6:1 9.41 9.31 1.78 6:1 6:1 15:24 6:1 18:36 6:1 8:3 36:65 3.29	2.44 3.1 2.44 9.13 5.05 2.54 2.44 0.5 9.3 2.44 2.44 33.72 20.2 2.71	5517.2 12.2 24.8 14.9 85.9 47.0 4.5 14.9 21870.0 31839.8 3858.0 2800.0 2800.0 141.7 14.9 214.4 14.9 214.4 14.9 3011.2 74.0 3011.2	25 25 25 5 5 5 22 25 25 25 25 25 25 25 2	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.02 0.3 0.3 0.3 0.3 0.02 0.02 0.003 0.003 0.003 0.003 0.003 0.003	31 31 244 91 51 25 244 244 244 117 244	0.16 0.16 0.02 0.05 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9 2.5 0.9 3.0 0.9	0.3 25.8 14.1 1.4 0.3 0.0 0.0 0.3 0.0 0.3 0.0 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3 10.7	200 1 32 45 5 9 1157 8 10 19 14 14 13 26 249 0	41.50 66.90 7.98 1504.62 25.20 12.40 17.84 19.46 78.91 223.94 0.25	0.0 1.2 0.0 0.0 30.5 62.0 425.6 425.6 17.2 425.6 17.2 17.3 17.3 17.3 17.3 17.3 17.3 17.3 17.3		Nova As built Acad, photo est
Geotjenent Lyddown Marieria Lyddown Ammonium Nitride Storage Area Geotech Drill Shop Westare Drill Shop Westare Drill Shop Westare Drill Shop Waste Management Area Land Farm Batch Plant Pad Purn Pan Quarry #2 Crusher Crusher Treated Sewage Discharge Areas North Dann Treated Sewage Discharge Areas	See can 20" Pivil Tent Weshbay Shed See can 20" Extent Liner Dirit Syno See can 20" Extent Liner Dirit Syno See can 20" Liner Lin	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.3 6.1 6.3 6.1 18.36 6.1 18.36 6.1 89.3 36.65 3.29 82.4 6.63 30 10 17.6	2.44 3.1 2.44 9.13 5.05 2.34 2.44 0.5 2.44 11.60 2.44 11.60 2.44 2.44 2.44 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	5517.2 12.2 24.8 14.9 14.9 15.9 14.9 15.9 14.9 14.9 14.9 14.9 14.9 14.9 14.9 14	2.5 2.5 2.5 5 5 2.5 2.5 2.5 2.5 2.5 2.5	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.002 0.003 0.003 0.003 0.003 0.003 0.003	31 31 244 91 51 25 244 244 244 117 244	0.16 0.16 0.02 0.05 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9 2.5 0.9 3.0 0.9	7.4 0.3 25.8 14.1 1.4 0.3 0.0 0.0 0.3 0.0 0.3 222.1	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3 10.7	20 1 32 45 5 9 1157 8 10 19 14 14 13 26 249 0	41.59 66.99 7.98 1594.62 25.20 12.40 17.84 17.84 0.25	0.0 1.2 0.0 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	614.2	Nova As built Acad, photo est Nova As built Acad, design document est Nova As built Acad estimated Nova est built Acad estimated
Geojament Laydown Makerial Laydown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Waste Management Area Land Farm L	See can 20" Pivil Tent Weshbay Shed See can 20" Extent Liner Containment Berm Containment Berm Containment Berm Containment Berm Containment Berm Liner Lin	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6:1 9:41 9:31 1:78 6:1 6:1 6:34 6:1 1:8:36 6:1 1:8:36 6:1 89:3 36:65 3:29 6:4 6:5 3:29 6:4 6:5 3:29 6:5 6:5 6:5 6:5 6:5 6:5 6:5 6:5	2.44 31 2.44 2.44 2.55 5.05 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.4	5517.2 12.2 24.8 11.9 11.9 15.9 14.9 15.9 14.9 14.9 14.9 14.9 14.9 14.9 14.9 14	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 3.5 2.5 2.5 2.5 3.5 5.5 2.5 2.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.002 0.003 0.003 0.003 0.003 0.003 0.003	31 31 244 91 51 25 244 244 244 117 244	0.16 0.16 0.02 0.05 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9 2.5 0.9 3.0 0.9	0.3 25.8 14.1 1.4 0.3 0.0 0.0 0.3 0.0 0.3 0.0 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3 10.7	200 1 32 45 5 9 1157 8 10 19 14 14 13 26 249 0	41.50 66.90 7.98 1504.62 25.20 12.40 17.84 19.46 78.91 223.94 0.25	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2		Nova As built Acad, photo est
Geojapment Luydown Makerial Luydown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant Pad Purn Pan Quarry #2 Courber Overbueden Drump Overbueden Drump Overbueden Drump Treated Sewage Discharge Areas Land Lake Access Dam	Sea can 20" Piril Tent Washbay Shed See Can 20" Extent Liner Containment Berm Diril Shop Sea can 20" Tent Sea can 20" Tent Non-woven Geotestile Containment Berm Brun Pan Regrade area Regrade area Regrade area Regrade area Refrede area Refrede Brun Pan Refrede area Refrede area Refrede Brun Pan Refrede Brun Pan Refrede area Refrede area Refrede Brun Pan Refre	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.3 4 15.24 6.1 18.36 6.1 18.36 6.1 18.36 6.1 18.36 6.1 19.36 19.36 19.36 19.37 1	2.44 3.1 2.44 9.13 5.5 2.44 2.44 2.44 11.68 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.4	5517.2 12.2 24.8 14.9 14.9 15.9 14.9 15.9 14.9 15.9 14.9 14.9 14.9 14.9 14.9 14.9 14.9 14	2.5 2.5 2.5 5 5 2.5 2.5 2.5 2.5 2.5 2.5	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.002 0.003 0.003 0.003 0.003 0.003 0.003	31 31 244 91 51 25 244 244 244 117 244	0.16 0.16 0.02 0.05 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9 2.5 0.9 3.0 0.9	0.3 25.8 14.1 1.4 0.3 0.0 0.0 0.3 0.0 0.3 0.0 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3 10.7	200 1 32 45 5 9 1157 8 10 19 14 14 13 26 249 0	41.50 66.90 7.98 1504.62 25.20 12.40 17.84 19.46 78.91 223.94 0.25	0.0 1.2 0.0 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	614.2	Nova As built Acad, photo est
Geojapinent Lyddown Makerial Lyddown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant Pad Purn Pan Quarry #2 Courber Overbueden Drump Overbueden Drump Overbueden Drump Treated Sewage Discharige Areas Land Lake Access Dam	Sec can 20" Pivil Tent Washibay Deed Deed Dee can 20" Containment Berm Containment Berm Diss Shop Sec can 20" Feet Sec can 20" Sec can 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3	2.44 3.1 2.44 9.13 5.52 2.44 9.13 2.44 9.13 2.44 2.44 2.44 2.44 4.01 2.24 4.01 4.01 4.01 4.01 4.01 4.01 4.01 4.0	5517.2 12.2 24.8 14.9 14.9 21870.0 31839.8 14.9 21870.0 31839.8 15.5 15.9 21870.0 31839.8 16.9 2200.0 2200.	2.5 2.5 2.5 5 5 2.5 2.5 2.5 2.5 2.5 2.5	0.15 0.02 0.01 0.16 0.15 0.02	0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.002 0.003 0.003 0.003 0.003 0.003 0.003	31 31 244 91 51 25 244 244 244 117 244	0.16 0.16 0.02 0.05 0.16 0.16 0.02	5.6 8.3 0.9 1.9 23.0 3.2 0.9 2.5 0.9 3.0 0.9	0.3 25.8 14.1 1.4 0.3 0.0 0.0 0.3 0.0 0.3 0.0 0.3	2.5 4.0 0.3 4.3 7.5 0.7 0.3 7.1 0.3 10.7	200 1 32 45 5 9 1157 8 10 19 14 14 13 26 249 0	41.50 66.90 7.98 1504.62 25.20 12.40 17.84 19.46 78.91 223.94 0.25	0.0 1.2 0.0 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	614.2	Nova As built Acad, photo est
Geognement Luydown Mahrieri Luydown Ammonium Nitrite Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant Pad Purn Pan Quarry #2 Couther Country Trainers Sevenge Discharge Areas North Dam Tall Lake Access Down Cover Surface Area	See can 20" Piril Tent Washbay Shed See Can 20" Catent Liner Li	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 15.24 6.1 18.36 6.1 18.36 6.1 29.3 30.55 32.9 30.6 30.6 30.48 6.1	2.44 31 2.44 3.25 3.50 5.05 5.05 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.4	5517.2 12.2 24.8 11.2 12.8 14.9 14.9 14.9 14.9 14.9 12.100.0 221870.0 231870.0 231870.0 231870.0 231870.0 231870.0 2480.0 2480.0 2480.0 2480.0 2480.0 2480.0 2480.0 2480.0 2480.0 2580.0 2680.0	2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	0.15 0.02 0.01 0.16 0.15 0.15 0.02 0.02 0.02 0.03 0.02 0.03 0.05 0.05	03 002 03 03 03 03 03 002 002 002 002 00	31 31 31 244 91 51 25 244 117 244 117	0.16 0.05 0.02 0.02 0.05 0.02 0.05 0.05 0.05	2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.7 0.9 2.7 0.9 2.7 0.9 2.7 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	7.4 0.3 25.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 18.0 0.3	25 40 40 43 75 07 03 107 03 107 03 214	20 1 32 45 5 9 1157 8 10 19 14 14 13 26 249 0 0 18 19 19 19 10 10 10 10 10 10 10 10 10 10	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 39.46 78.91 322.94 0.25	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	614.2	Nova As built Acad, photo est
Geotech Lyddown Marieria Lyddown Ammonium Nitrate Storage Area Geotech Drill Shop Westanc Drill Shop Westanc Drill Shop Westanc Drill Shop Waste Management Area Land Farm Bastch Plant Pad Purn Pan Quarry #2 Crusher Crusher Treated Sewage Discharge Areas Treated Sewage Discharge Areas Dam Cover Furlace Area Dam Cover Furlace Area	See can 20" Pill Tent Washbay Shed See can 20" Estent Liner Containment Berm Donis Shop See can 20" See can	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1	2.44 3.1 2.44 9.13 2.54 2.54 2.54 2.44 11.69 2.44 11.69 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.4	5517.2 12.2 24.8 14.9 15.0 16.0 21870.	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 3.5 2.5 3.5 2.5 3.5 2.5 3.5 3.5 3.5 2.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3	0.15 0.02 0.01 0.16 0.15 0.15 0.02 0.02 0.02 0.01 0.02	0.3 0.22 0.3 0.3 0.3 0.3 0.0 0.0 0.0 0.0	33 33 33 244 91 51 25 244 244 117 244	0.16 0.15 0.02 0.02 0.05 0.16 0.16 0.02 0.05 0.05 0.05 0.05	5.6 8.3 0.9 1.9 23.0 0.9 0.9 0.9 3.0 0.9 1.0 0.9 1.0 0.9	7.4 0.3 25.8 14.1 1.4 0.3 0.3 0.3 0.3 0.0 0.3 0.3 0.3 222.1 0.0 0.0 0.3	25 40 03 43 75 07 03 03 107 03 107 03 214	20 1 32 45 5 9 1157 8 10 19 14 14 14 26 249 0	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 19.46 78.51 22.94 0.25 27.00 105.00	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	614.2	Nova As built Acad, photo est
Geolgement Laydown Markerial Laydown Ammonium Witarle Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant Pad Batch Plant Pad Parn Pan Quarry #2 Crusher Coverburden Drump Treated Sewage Discharge Areas Morth Dann Tail Lake Access Dam Cover Surface Area Dem Cover Surface Area Veen Kalse	See-can 20" Pivil Tent Washbay Shed See-can 20" Extent Liner Containment Berm Containment Berm Containment Berm Containment Berm Containment Berm Liner Lin	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 2 2	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.3.4 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1	2.44 3.1 2.44 3.1 2.44 9.13 2.44 9.13 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.4	\$517.2 12.2 24.8 14.9 85.3 14.9 21870.0 31839.8 3855.0 2800.0 14.9 214.4 14.9 214.4 14.9 214.4 14.9 214.4 14.9 214.6 300.0 300	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.05 1 0.05	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	5.6 8.3 0.9 1.9 23.0 0.9 2.2 0.9 2.5 0.9 3.0 0.9 3.0 0.9	7.4 0.3 52.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	25 40 03 43 7,5 07 03 03 107 03 107 107 103 127 144	20 1 32 45 5 9 1157 8 10 19 14 14 13 26 249 0 53 18 70 8 81 173 3	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 19.46 78.51 22.94 0.25 27.00 105.00	0.0 1.2 0.0 1.2 0.0 20.5 20.5 20.5 20.5 20.5 20.5 20.	614.2	Nova As built Aread, photo est
Geognement Luydown Mahrieri Luydown Ammonium Mitrate Storage Area Geotech Drill Shop Westare Drill Shop West	See can 20" Pivil Tent Washbay Shed See can 20" Extent Liner Containment Berm Onti Shop Onti Sh	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.3.4 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1	2.44 3.1 2.44 9.13 2.54 2.54 2.54 2.44 11.68 2.44 11.68 2.44 2.44 2.41 2.41 2.41 2.41 2.41 2.41	5517.2 12.2 24.8 14.9 15.0 16.0 16.0 21870.0 2	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.05 1 0.05	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	5.6 8.3 0.9 1.9 23.0 0.9 2.2 0.9 2.5 0.9 3.0 0.9 3.0 0.9	7.4 0.3 52.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	25 40 03 43 7,5 07 03 03 107 03 107 107 103 127 144	20 1 1 22 24 5 5 8 8 1 1157 19 19 19 19 14 14 14 14 12 26 28 7 7 7	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 19.46 78.91 22.94 0.25 27.00 105.00	0.0 1.2 0.0 1.2 0.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2	614.2	Nama As built Aread, photo est
Geolgement Laydown Markerial Laydown Ammonium Witarle Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant Pad Batch Plant Pad Parn Pan Quarry #2 Crusher Coverburden Drump Treated Sewage Discharge Areas Morth Dann Tail Lake Access Dam Cover Surface Area Dem Cover Surface Area Veen Kalse	Sec can 20" Piril Tent Washishy Died Ber Care Green Gr	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.3.4 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1	2.44 3.1 2.44 9.13 2.54 2.54 2.54 2.44 11.68 2.44 11.68 2.44 2.44 2.41 2.41 2.41 2.41 2.41 2.41	5517.2 12.2 24.8 14.9 15.9 16.9 16.9 16.9 16.9 16.9 16.9 16.9 16	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.05 1 0.05	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	5.6 8.3 0.9 1.9 23.0 0.9 2.2 0.9 2.5 0.9 3.0 0.9 3.0 0.9	7.4 0.3 52.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	25 40 03 43 7,5 07 03 03 107 03 107 107 103 127 144	20 1 1 22 24 5 5 5 7 8 1157 8 10 10 10 10 10 10 10 10 10 10 10 10 10	41.50 66.90 7.38 1504.62 25.20 12.40 39.46 78.91 39.46 9.15 69.12 27.00 105.00	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	614.2	Nova As built Acad, photo est
Gregoment Luydown Marierial Luydown Ammonium Mitrate Storage Area Geotech Driff Shop Westarc Driff Shop Westarc Driff Shop Waste Management Area Lund Farm Batch Plant Pad Butch Plant Pad Durny #2 Coubles Coubles Trained Shopage Discharge Areas North Dam Traited Shopage Discharge Areas	See can 20" Pivil Tent Washbay Shed See can 20" Extent Liner Containment Berm Onti Shop Onti Sh	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.3.4 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1	2.44 3.1 2.44 9.13 2.54 2.54 2.54 2.44 11.68 2.44 11.68 2.44 2.44 2.41 2.41 2.41 2.41 2.41 2.41	5517.2 12.2 24.8 14.9 15.0 16.0 16.0 21870.0 2	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.05 1 0.05	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	5.6 8.3 0.9 1.9 23.0 0.9 2.2 0.9 2.5 0.9 3.0 0.9 3.0 0.9	7.4 0.3 52.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	25 40 03 43 7,5 07 03 03 107 03 107 107 103 127 144	20 1 1 22 24 5 5 8 8 1 1157 19 19 19 19 14 14 14 14 12 26 28 7 7 7	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 19.46 78.91 22.94 0.25 27.00 105.00	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	614.2	Nama As built Aread, photo est
Geolgenent Laydown Markerial Laydown Ammonium Witzrie Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant Pad Batch Plant Pad Plant Pan Querry #2 Crusher Coverburden Drump Treated Senage Discharge Areas Morth Dann Tail Lake Access Dam Cover Surface Area Veent Raise Dobris Windy Road MARR Oodery A Oodery B Oodery A Oodery B Oodery A	See can 20" Pivil Tent Washbay Shed See can 20" Extent Liner Containment Berm Onti Shop Onti Sh	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.3.4 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1	2.44 3.1 2.44 9.13 2.54 2.54 2.54 2.44 11.68 2.44 11.68 2.44 2.44 2.41 2.41 2.41 2.41 2.41 2.41	5517.2 5517.2 12.2 24.8 14.9 15.10.3	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.05 1 0.05	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	5.6 8.3 0.9 1.9 23.0 0.9 2.2 0.9 2.5 0.9 3.0 0.9 3.0 0.9	7.4 0.3 52.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	25 40 03 43 7,5 07 03 03 107 03 107 107 103 127 144	20 1 1 22 24 5 5 8 8 1 1157 19 19 19 19 14 14 14 14 12 26 28 7 7 7	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 19.46 78.91 22.94 0.25 27.00 105.00	0.0 1.2 0.0 1.2 0.0 20.5 20.5 20.5 20.5 20.5 20.5 20.	614.2	Nama As built Aread, photo est
Gregoment Luydown Marierial Luydown Ammonium Mitrate Storage Area Geotech Driff Shop Westarc Driff Shop Westarc Driff Shop Waste Management Area Lund Farm Batch Plant Pad Butch Plant Pad Durny #2 Coubles Coubles Trained Shopage Discharge Areas North Dam Traited Shopage Discharge Areas	See can 20" Pivil Tent Washbay Shed See can 20" Extent Liner Containment Berm Ont Shop Ont S	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1	2.44 3.1 2.44 3.1 2.44 3.1 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.	5517.2 12.2 24.8 14.9 15.9 16.0 16.0 21870.0 2	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 3.5 2.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.05 1 0.05	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	5.6 8.3 0.9 1.9 23.0 0.9 2.2 0.9 2.5 0.9 3.0 0.9 3.0 0.9	7.4 0.3 52.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	25 40 03 43 7,5 07 03 03 107 03 107 107 103 127 144	20 1 1 22 45 5 8 1 1157 8 8 19 19 14 14 14 12 25 5 5 7 7 7 7	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 19.46 78.51 22.94 0.25 27.00 105.00	0.0 1.2 0.0 1.2 0.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2	614.2	Nova As built Aread, photo est
Geogeneral Luydown Markerial Luydown Ammonium Witzrie Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant bad Plant bad Plant ban Gourry #2 Crusher Coverburden Drump Treated Sewage Discharge Areas North Dam Cover Surface Area Dam Cover Surface Area Levent Baise Vent	Sec.can 20" Pivil Tent Washishy Deed Sec.can 20" Liver Containment Berm Doil Shop Sec.can 20" Feet Liver Containment Berm Dris Shop Sec.can 20" Feet Sec.can 20" Feet Burn Pan Liver Liver Feet Burn Pan Burn	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.1 6.1 6.1 6.1 6.1	2.44 3.1 2.44 9.13 5.62 9.13 9.244 1.168 1.168 2.44 1.168 2.44 1.168 2.44 4.01 2.24 4.01 2.24 4.01 2.24 2.44 2.44 2.44	\$517.2 12.2 24.8 14.9 85.0 85.0 14.9 21870.0 31839.8 3836.0 28800.0 141.9 121.4 14.9 121.4 12	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.05 1 0.05	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	5.6 8.3 0.9 1.9 23.0 0.9 2.2 0.9 2.5 0.9 3.0 0.9 3.0 0.9	7.4 0.3 52.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	25 40 03 43 7,5 07 03 03 107 03 107 107 103 127 144	20 1 1 22 24 5 5 8 8 1 1157 19 19 19 19 14 14 14 14 12 26 28 7 7 7	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 19.46 78.91 22.94 0.25 27.00 105.00	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 0.0 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	614.2	Nova As built Aread, photo est
Geotech Luydown Mahrieri Luydown Ammonium Nitrite Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Land Farm Batch Plant Pad Burn Pan Geory PZ Crusher Growtheden Drump Trotted S-rowage Discharge Areas Trail Lake Access Down Growth Shop Cover Surface Area Grover Surface Area Fresen Core Plant West Raise Westard Shop Goding Area Doris Windy Road WARR Godany A Godany B Godany A Godan	See can 20" Pivil Tent Washbay Shed See can 20" Extent Liner Containment Berm Ont Shop Ont S	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 178 6.1 6.1 6.1 6.1 18.36 6.1 18.36 6.1 19.36 6.3 30.3 30.48 6.1 6.1 10.1 1	2.44 3.1 2.44 3.1 2.44 9.13 5.5 5.5 5.5 5.5 2.44 1.1.68 2.44 1.1.68 2.44 2.44 2.44 2.44 2.44 2.44 3.1 3.1 3.6 0.2	5517.2 12.2 24.8 14.9 14.9 14.9 14.9 14.9 14.9 14.9 14.9	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.05 1 0.05	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	5.6 8.3 0.9 1.9 23.0 0.9 23.0 0.9 22.5 0.9 3.0 0.9 2.5 0.9 3.0 0.9	7.4 0.3 52.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	25 40 03 43 7,5 07 03 03 107 03 107 107 103 127 144	20 1 1 22 45 5 5 1 1157 8 1 10 19 19 19 26 269 0 19 19 19 19 19 19 19 19 19 19 19 19 19	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 39.46 78.91 39.46 78.91 39.94 0.25 27.00 105.00 105.00	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	614.2	Nova As built Aread, photo est
Geotech Laydown Markerial Laydown Ammonium Nitrate Storage Area Geotech Drill Shop Westare Chill Shop Westare Chill Shop Westare Chill Shop Waste Management Area Land Farm Batch Plant Pad Purn Pan Quarry #2 Crusher Cursher Treated Sewage Discharge Areas Foreign Cover Show Co	Sea cara 20" Piril Tent Washbay Died Dev Cara 20" Containment Berm Containment Berm Containment Berm Diris Shop Sea cara 20" Tent Sea cara 20" Liter Li	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.1 6.1 6.1 1.8.36 6.1 1.8.36 6.1 1.8.36 6.3 89.3 10 10 17.6 6.5 3.29 10 10 10 10 10 10 10 10 10 10	2.44 3.1 2.44 3.1 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.	\$517.2 21.2 24.8 112.2 24.8 114.9 14.9 14.9 14.9 14.9 14.9 14.9 14.	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 2.5 3.5 2.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.05 1 0.05	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.7 0.1	7.4 0.3 25.8 14.1 14.1 0.3 0.0 0.0 0.3 0.3 0.0 0.3 18.0 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0	25 40 40 3 43 75 07 03 107 03 107 03 214	20 1 22 23 45 5 9 1157 8 10 10 10 10 10 11 14 14 14 15 16 17 10 10 10 10 10 10 10 10 10 10	1504.65.20 1504.62.27 25.20 17.84 17.84 17.84 17.84 17.89 105.00 105.00 105.00 121.17 25.13 121.17 25.13 121.17 25.13	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	614.2	Nova As built Acad, photo est
Geotech Drill Shop Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Batch Plant Pad Burn Pan Burn Pan Geory PZ Crusher Drum Pan Geory PZ Crusher Crusher Growthoden Drump Treated S-rowage Discharge Areas Treated S-rowage Discharge Areas Frecen Core Plant West Raise Wernfalloon and Healting Facilities West Raise Doris Windy Road WARR Goarny A Goarny A	See can 20" Pivil Tent Washbay Shed See Can 20" See Can 20" Can	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 1.836 1.836 1	2.44 3.1 2.44 3.1 2.44 2.44 2.44 2.44 2.44 2.44 2.44 4.01 2.24 4.01 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.4	\$517.2 12.2 24.8 14.9 14.9 14.9 14.9 21170.0 231810.8 2800.0 2900.0 2000	2.5 2.5 2.5 2.5 3 5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2	0.15 0.02 0.01 0.16 0.15 0.15 0.15 0.15 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.02	03 002 03 03 03 03 03 003 003 003 003 00	33 33 33 244 91 51 25 244 117 117	0.16 0.15 0.02 0.02 0.05 0.16 0.02 0.05 0.05 0.05 0.05 0.05 0.05 0.05	5.6 6.3 9.3 9.1 9.2 1.9 23.0 9.9 2.5 0.9 3.0 0.5 5.7 0.1 21.3 42.7 0.9 1.5	7.4 0.3 0.3 25.8 14.1 1.4 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	25 40 03 03 43 75 07 03 03 107 03 03 03 03 06	20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	41.50 66.90 7.38 1504.62 25.20 12.40 39.46 78.91 323.94 0.25 27.00 105.00	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	614.2	Nova As built Acad, photo est
Geotech Drill Shop Merian Luydown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Jana Farm Batch Plant Pad Purn Pan Batch Plant Pad Purn Pan George Yaz Crusher Crusher Forein George George Forein Geor	Sea cara 20" Piril Tent Washbay Died Dev Cara 20" Containment Berm Containment Berm Containment Berm Diris Shop Sea cara 20" Tent Sea cara 20" Liter Li	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 6.1 6.1 6.1 1.8.36 6.1 1.8.36 6.1 1.8.36 6.3.29 89.3 10 10 10 17.6 6.5 3.29 10 10 10 10 10 10 10 10 10 10	2.44 3.1 2.44 3.1 2.44 3.1 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.	5517.2 5517.2 12.2 24.8 14.9 15.9 16.0 16	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3	0.01 0.02 0.01 0.016 0.016 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.02	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.02 0.02 0.05 0.02	2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.5 0.9 2.7 0.1	7.4 0.3 25.8 14.1 14.1 0.3 0.0 0.0 0.3 0.3 0.0 0.3 18.0 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0	25 40 40 3 43 75 07 03 107 03 107 03 214	20 1 1 22 2 45 5 8 1 1157 8 19 19 19 14 14 14 12 25 249 0 0 0 0 15 15 15 15 15 15 15 15 15 15 15 15 15	41.50 66.90 7.98 1504.62 75.30 12.40 17.84 17.84 17.89 132.94 0.25 27.00 105.00 105.00 121.17 25.13 121.17 25.13 13.69 7.38 7.38 7.38 7.38 7.38 7.38 7.38 7.38	0.0 1.2 0.0 1.2 0.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2	6142 23672	Nova As built Acad, photo est
Geotech Drill Shop Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Batch Plant Pad Burn Pan Burn Pan Geory PZ Crusher Drum Pan Geory PZ Crusher Crusher Growthoden Drump Treated S-rowage Discharge Areas Treated S-rowage Discharge Areas Frecen Core Plant West Raise Wernfalloon and Healting Facilities West Raise Doris Windy Road WARR Goarny A Goarny A	Sea cara 20" Pivil Tent Washishay Deed Dee cara 20" Constantment Berm Does Shop Sea cara 20" Feet Univer Sea cara 20" Feet Sea cara 20" F	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 1.86 6.1 1.86 6.1 1.86 6.1 89.3 36.65 3.29 82.4 6.63 30 10 10 10 10 10 10 10 10 10 1	2.44 3.1 2.44 3.1 2.44 9.13 2.44 9.13 2.54 2.54 2.54 2.44 1.16 9.3 2.44 1.16 9.3 2.44 1.16 9.3 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.	\$517.2 12.2 24.8 14.9 85.0 45.1 14.9	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 3.5 2.5 3.5 2.5 3.5 2.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3	0.01 0.02 0.01 0.016 0.016 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.02	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244 244 244 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.05 0.02 0.05 0.02 0.05 0.02	5.5 8.3 0.9 1.9 23.0 0.9 23.0 0.9 2.5 0.9 3.0 0.9 5.7 0.1 21.3 42.7 0.9 1.5	7.4 0.3 0.3 25.8 14.1 1.4 0.3 0.3 0.0 0.0 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.0	25 40 03 43 7,5 07 03 107 03 107 03 127 103 107 03 03 107 03 03 107 03	20 1 12 22 45 5 8 1157 8 19 19 14 14 14 26 20 5 3 8 19 19 19 14 14 14 26 27 19 19 19 19 19 19 19 19 19 19 19 19 19	41.50 66.90 7.38 1504.62 25.20 12.40 17.84 17.84 12.94 0.25 105.00 105.00 105.00 105.00 105.00 105.00	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	6142 23672	Nova As built Aread, photo est
Geotech Drill Shop Merian Luydown Ammonium Nitrate Storage Area Geotech Drill Shop Westarc Drill Shop Westarc Drill Shop Waste Management Area Jana Farm Batch Plant Pad Purn Pan Batch Plant Pad Purn Pan George Yaz Crusher Crusher Forein George George Forein Geor	Sea cara 20" Piril Tent Washbay Died Dev Cara 20" Containment Berm Containment Berm Containment Berm Containment Berm Diris Shop Sea cara 20" Tent Sea cara 20" Liter Liter Liter Ber Cara 20" Liter Liter Ber Cara 20" Liter Ber Cara 20" Liter Liter Liter Ber Cara 20" Liter Liter Liter Ber Cara 20" Liter Liter Liter Liter Ber Cara 20" Liter	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.1 9.41 9.31 1.78 6.1 6.1 6.1 1.83 6.1 1.83 6.1 1.83 6.1 1.83 8.93 1.83 8.93 1.83 1.75 1	2.44 3.1 2.44 3.1 2.44 9.13 2.44 9.13 2.54 2.54 2.54 2.44 1.16 9.3 2.44 1.16 9.3 2.44 1.16 9.3 2.44 2.44 2.44 2.44 2.44 2.44 2.44 2.	\$517.2 12.2 24.8 14.9 85.0 45.1 14.9	2.5 2.5 2.5 3.5 3.5 2.5 2.5 2.5 2.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3	0.01 0.02 0.01 0.016 0.016 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.02	0.3 0.2 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.0 0.0 0.0	23 33 31 244 93 51 25 244 244 117 244 117 244 244 244 244	0.16 0.16 0.16 0.02 0.05 0.16 0.02 0.02 0.02 0.05 0.02 0.05 0.02 0.05 0.02	5.5 8.3 0.9 1.9 23.0 0.9 23.0 0.9 2.5 0.9 3.0 0.9 5.7 0.1 21.3 42.7 0.9 1.5	7.4 0.3 0.3 25.8 14.1 1.4 0.3 0.3 0.0 0.0 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.0	25 40 03 43 7,5 07 03 107 03 107 03 127 103 107 03 03 107 03 03 107 03	20 1 12 22 45 5 8 1157 8 19 19 14 14 14 26 20 5 3 8 19 19 19 14 14 14 26 27 19 19 19 19 19 19 19 19 19 19 19 19 19	41.50 66.90 7.98 1504.62 75.30 12.40 17.84 17.84 17.89 132.94 0.25 27.00 105.00 105.00 121.17 25.13 121.17 25.13 13.69 7.38 7.38 7.38 7.38 7.38 7.38 7.38 7.38	0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 0.0 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	6142 23672	Nova As built Aread, photo est

Waste Volume Summary
tem Destination Qinty Unit Trips Required
fazardous Waste L 1

Doris_ClosureCostStimate_1CH008.069_Rev21_TanksDemoliohed_SA_IM_BC_trs_IM_sw

Demolition Preparation				Decom	amision		-						
Semonated Preparation				DECOMMON!									
					Plumbing			Hazardous Material					
Area	Structure	# of Units	Electrical	Heating System	System	Total	Heating Tanks	Vol Estimate (L)	Volume (L)	Special Item	Special Item	Description	Source
Doris Camp													
Accomodation Complex	Trailer Camp Cabins	5	1	1	1	3 15	1		0				Accomodation Design Doc, as built ACAD As built ACAD
Fuel Tank Farm	Fuel Transfer Facility	1	1	1	1	15	1		0				AS DUIT ALAD Accomplation Design Doc, as built ACAD
Taci talik talili	Piping and Controls	î	-			0			ŏ				As built ACAD
	Above Ground Tanks	5				0		5,022	25,112	2	Residual Fuel	(in each)	As built ACAD
Permanent Power Generator	Debris								500		Debris		
Temporary Power Generator	Power House	1	1	1		2	1		0				Estimated from ACAD
	Mobile Generator	1				0			0				Estimated from ACAD
Sewage Treatment Plant	Fuel Unit Sewage Treatment Facility	1	1	1	1	0 3	1		0				As built ACAD Estimated from ACAD
Sewage Treatment Plant	Sludge Storage Tank	1	1	1	1	0	1	1000	1000		Sludge/Sol	Ed Waste	Estimated from ACAU Estimated from Sewage Treament Plant Specs
	Chemical Tank	1				0		1000	1000		Chemical	- Truste	Estimate from Sewage Treament Plant Specs
Fire Water Storage Tank	Pump House	1	1		1	2			0				Estimated from ACAD
Muster Station	Fuel Unit	1				0			0				Estimated from ACAD
	Muster Tent	1	1	1		2	1		0				Estimated from ACAD
Warehouse/Core Shack	Fuel Unit	1				0			0				Estimated from ACAD
	CoreShack/Warehouse	1	1			1	1	5000	5000				
UG Mechanical Shop	Contractor Tents Maintenance Shop	2	1	1	1	4	1	200	200	Ch	nicals/Grease/\		Estimated from ACAD Estimated from ACAD
Office/Mine Dry	Office/Admin/Mine Dry	3	1	1	1	9	1	200	0	Cher	nicais/Grease/i	waste	ESTIMATED TOM ACAD ESTIMATED TOM ACAD ESTIMATED TOM ACAD
Portal and Underground WorksWater Treatment	Undeground Works	1	1	-	-	1			0				ESTIMATED TOM ACAD ESTIMATED TOM ACAD
Underground washbay	generators	4	-			0			0				Estimated from ACAD
· ·	Washbay	1	1	1	1	3	1		0				Estimated from ACAD
Swick Shop	Shop Tent	1	1	1		2	1		0				Estimated from ACAD
Water Intake/Pumping Facility	pumping facitility sea-can	1	1		1	2			20		Debris		Estimated from ACAD
	Generator Fuel Tank	1				0			0				Estimated from ACAD
Sedimentation Pollution Control Pond	Piping & Wiring	1 1	1	1		1 2	1	200	200				Estimated from aerial photo Estimated from ACAD
Fresh Water Pipelines	RO plant Pipelines	1	1	1		1	1	200	0		Sludge		Estimated from ACAD Estimated from ACAD
Heli Pad	Offices/Buildings	3	1	1	1	9	1		200		Grease		Estimated from ACAD Estimated from ACAD
Sewage Discharge Pipelines	Pipelines	1	1	-		1			0				Estimated from ACAD
Robert's Bay						0			0				
New Tank Farm	Fuel Transfer Facility	1	1			1			0				As built ACAD
	Above Ground Tanks	4				0		15,635			Residual Fuel ((in each)	As built ACAD
Old Tank Farm	Fuel Transfer Facility Above Ground Tanks	1	1			1			0		Residual Fuel (As built ACAD As built ACAD
Mechanical Shop Complex	Nuna Shop	1 1	1	1	1	0	1	15,635 1000	15,635		Grease/Waste		AS BUIL ACADI Nuna as Built ACAD
Mechanical Shop complex	Tent	1	1	1	-	2	1	1000	0		Grease/ waste		Nuna as bunt ACAD Nuna si bunt ACAD
	Site Service Shack	1	1	1		2	1		0				Nuna as built ACAD
Waste Management Facility	Facility	1	1	1	1	3	1	500	500		Waste (ashe)		Nuna as built ACAD, waste est
Laydown Area	Electric System	1	1			1		5000	5000		Debris		Nuna as built ACAD, Photo Est.
Overburden Area	Pad								10		Debris		
Communication Tower	Tower	1	1			1			5		Debris		Nuna as built ACAD, Photo Est.
Beach Laydown	Laydown Area	0	0	0	0	0			1 50		Debris	-	No. 10 10 10 10 10 10 10 10 10 10 10 10 10
Orbit Drill Shop Air Strip	Shop	1	1	1	1	0	1	50	50		Grease		Nuna as built ACAD, Photo Est.
North Apron	Traffic Control Tower	1	1			1			0	†			Nuna as built ACAD, Photo Est.
Explosive Mixing Facility	Facilities	1	1	1		2	1	100	100		Dye		Nuna as built ACAD, Photo Est. Nuna as built ACAD, Photo Est.
Reagent Pads						0			0				
Equipment Laydown Area									20		Debris		
Material Laydown Area									20		Debris		
Geotech Drill Shop	Drill Shop	1	1	1		2	1	50	50		Grease		Nuna as built ACAD, Photo Est.
Westarc Drill Shop Waste Management Area	Drill Shop	1	1	1		0	1	50	50		Grease	-	Nuna as built ACAD, Photo Est.
Waste Management Area Landfarm	Soil Pond	1				0			34		Contaminated	I Soil	Nuna as built ACAD,
Burn Pan	Ashe	1				0		100	100		Ashe Contaminated	JUII	NUIR as DUIR ALCAU, Nun as built ACAD, Photo Est.
Quarry 2	Debris							200	2.668		Debris		Stimate down words, who care
North Dam						0			0				
Frozen Core Plant	Plant	1	1	1		2	1		0				Nuna as built ACAD, Photo Est.
Vent Raise	Vent Rise Facility	1		1	1	2			0				Estimate
	Enviro Tank	1											Estimate
	Liner												
Secondary Road Doris Mountain	Debris					0			20		Debris		
Communication tower	equipment	1				0			0				Nuna as built ACAD. Photo Est.
communication tower	Je-doubulicur.					U			119 2709921				manu au unit voru, i noto est.

Doris_ClosureCostEstimate_1CH008.069_Rev21_TanksDemolished_SA_IM_BC_trs_IM_sw

Appendix B: Updated Doris Closure Cost Estimate Page 10 of 11

Worksheet 7: Earthwork Quantities

Earthwork Volumes/Quantities	
Bulking Factors	
Soil/Rock Pad	1.2
Cover shrinkage factor	1.1

Reclamation Areas

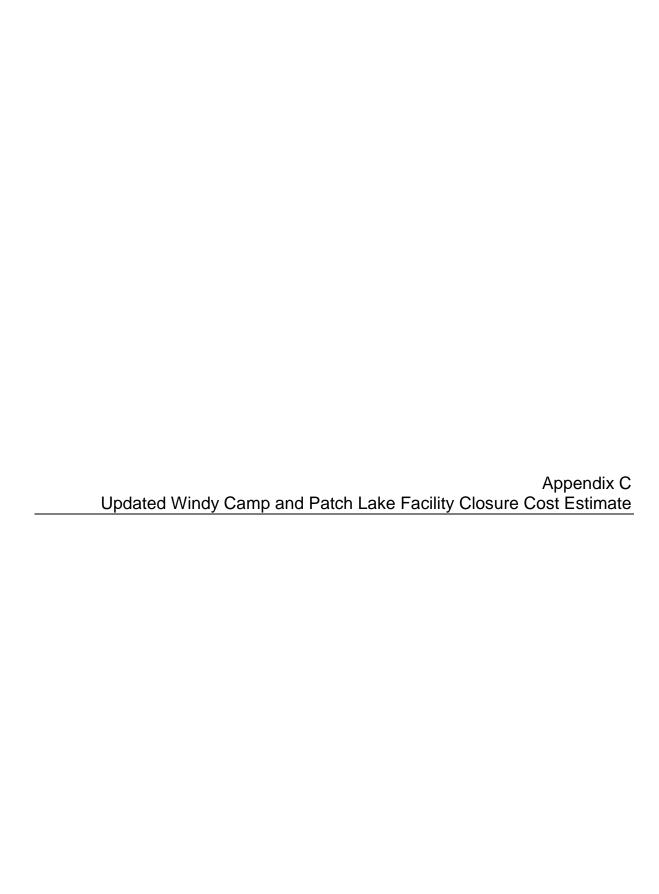
Reciamation Areas											
Work Area	Location	Total Area (m²)	Area Scarified (m²)	Area Regraded (m²)	Area Requiring Fill (m²)	Coconut- matting Area (m²)	Seeding Area (m²)	Source/Comment			
Roberts Bay	Beach Laydown Area		11,830					Nuna ACA	D, Photo Est.		
Quarry #2	Overburden Dump					7,600	7,600	Nuna ACAD, Photo Est.			
	Sewage Discharge Area				20	400	400	Estimated 2x(10mx20m)			
Earthwork Areas											
Work Area	ltem	Qnty	Length (m)	Width (m)	Height (m)	Side Slope (percent)	Area (m²)	In-situ Volume (m³)	Loose Volume (m³)	Source / Comments	
Doris Camp	item	Qitty	Length (III)	width (iii)	Height (III)	(percent)		(1117	Loose volume (m)		

Earthwork Areas	Sewage Discharge Area		1		20	400	400	Latimated	23(10111320111)	
Editiiwork Areas								In-situ		
						Side Slope		Volume		
Work Area	Item	Qnty	Longth (m)	Width (m)	Hoight (m)	(percent)	Area (m²)	(m³)	Loose Volume (m³)	Source / Comments
Doris Camp	iteiii	Qiity	Length (III)	wiath (III)	Height (m)	(percent)	Area (III)	(111)	Loose volume (m)	Source / Comments
Accomodation Area (Pad X)	Regrade area					1	21050			as built ACAD estimated
Tank Farm (Pad R)	Excavate crush material					1	21030	2800	3360	Fuel Tank Farm Design Docs
Idiik Faliii (Fau K)	Regrade area		80.65	61.1		1	4928	2000	3300	Fuel Tank Farm Design Docs
Warehouse (Pad Y)			80.03	01.1		1	8440			as built ACAD estimated
(Pad B)	Regrade area Regrade area					1	6910			as built ACAD estimated as built ACAD estimated
Mine Dry (Pad C)	Regrade area					1	13030			as built ACAD estimated as built ACAD estimated
Pad D	Regrade area					1	5943			est from Nuna As built ACAD
Pad E/P (UG Maintentance)	Regrade area					1	11000			as built ACAD estimated
Portal Area	Regrade area					1	1800			as built ACAD estimated
Pad I - Waste Rock	Regrade area					1	11500			as built ACAD estimated as built ACAD estimated
Pad G	Regrade area					1	5340			Nuna as built ACAD estimated
Pad F (washbay area)	Regrade area					1	8750			Nuna as built ACAD estimated Nuna as built ACAD estimated
Pad Q/ J/H (ore pile)	Regrade area					1	9870			as built ACAD estimated
Water Intake/Pumping Facility	Regrade area						2226			as built ACAD estimated as built ACAD estimated
	Regrade area					1	2220			as built ACAD estimated
Roberts Bay										
Jetty	Escavate rock fill				1.3		1900	2470		as built ACAD estimated
	Regrade area					1	1900			as built ACAD estimated
NewTank Farm	Regrade area					1	11530			as built ACAD estimated
	Excavate crush material				0.6			9400		Tank Farm Design Documents
Old Tank Farm	Regrade area					1	3650			as built ACAD estimated
	Excavate crush material				0.6			2190		as built ACAD estimated
Mechanical Shop Complex	Regrade area					1	4780			Nuna as built ACAD estimated
Waste Management Facility	Regrade area					1	3050			Nuna as built ACAD estimated
Laydown Area	Regrade area					1	15530			Nuna as built ACAD estimated
Overburden Dump	Regrade area/side slope					18	11530			Nuna as built ACAD estimated
Fuel Transfer Access Road	Crown road					1	3375			Nuna as built ACAD estimated
Airstrip			•		•					<u> </u>
										existing + expand (upto explosive facility) ACAD
Airstrip/Aprons	Regrade area					1	81945			Estimated
Reagent Pads										
Upper and Lower Pads	Regrade area					1	75550			as built ACAD estimated
Waste Management Area										
Land Farm	Excavate crush/surfacing material							1366		Landfarm Design Documents estimated.
	Contamitated Soil							100	Contamitaed soil	Estimated
	Regrade area					1	26750			Nuna as built ACAD estimated
Batch Plant Pad	Regrade area					1	12130			Nuna as built ACAD estimated
Quarry #2										
Crusher	Regrade area					1	25630			Nuna as built ACAD estimated
Overburden Drump	Regrade area					1	28420			Nuna as built ACAD estimated
North Dam										
Tail Lake Access Road	Crown Road					1	3429			Nuna as built ACAD estimated
Frozen Core Plant	Regrade area					1	7510			Nuna as built ACAD estimated
Vent Raise										
Fuel Storage Area	Excavate crush material							123		Design Document estimated
	Regrade area					1	4150			Nuna as built ACAD estimated
Doris Windy Road										
Explosives Storage Facility	Regrade area		1			1	2050			Nuna as built ACAD estimated
Secondary Road						-	2030			The second community of the se
Tail Lake Road	Regrade area					1	17500			Nuna as built ACAD estimated
							1,500			at a day of the community

Appendix B: Updated Doris Closure Cost Estimate

Worksheet 8: Water Management

Activity	Task	Unit	Cost	Unit Cost		Quantity			Acti	ivity Total	Source / Comments
Activity	lask	Ullit	Code	Unit Cost	Year 1	Year2	Year3	Total	ACI	ivity rotai	Source / Comments
											152 days open water season (May1 to Sept. 30); half
											season in Year 3 to draw down water in preparation for
Operate and maintain water management system	Pump technician	day	day rate	\$ 1,890	152	152	75	379	\$ 7	716,310.00	dam breaching
											camp costs in years 1 and 3 covered under facilities
	Support person (camp, etc.)	day	day rate	\$ 1,890	0	152	0	152	\$ 2	287,280.00	demolition costs
	Site Services Support &Maintenance	LS		\$ 50,000	1	1	0.5	2.5	\$ 1	125,000.00	
	Spare Parts & Consumables	LS		\$ 20,000	1	1	0.5	2.5	\$	50,000.00	
TOTAL									\$ 1,1	178,590.00	



	P	atch Lake	V	Vindy
	By Task	By Facility	By Task	By Facility
Direct Cost Items		Cost (rounded t	to nearest \$ 1,000))
1. Transportation infrastructure (roads, airstrips, docks)		\$3,000.00		\$3,000.00
Remediation of Permafrost Degradation Areas	\$3,000.00		\$3,000.00	
2. Drill Sites/Drill Hole Abandonment		\$0.00		\$22,000.00
Drill sites restoration	\$0.00		\$3,000.00	
Drill sites abandonment	\$0.00		\$19,000.00	
3. Drainage / Diversion Channels		\$0.00		\$5,000.00
Breach of Diversion Berm	\$0.00		\$5,000.00	
4. Facilities Demolition		\$104,000.00		\$314,000.00
Collection and Disposal of Non-Hazardous Wastes	\$0.00		\$5,000.00	
Remediation of Permafrost Degradation Areas	\$41,000.00		\$6,000.00	
Stabilization of Tank Farm Spoil Piles	\$19,000.00		\$3,000.00	
Site Re-Vegetation and Drainage Control	\$3,000.00		\$10,000.00	
Remediation of Hydrocarbon Contaminated Soils	\$41,000.00		\$98,000.00	
Salvaging Usable Equipment and Supplies	\$0.00		\$23,000.00	
Demolition of Remaining Structures	\$0.00		\$164,000.00	
Collection and Disposal of Hazardous Waste	\$0.00		\$5,000.00	
5. Off-site Shipping for Disposal	\$261,000.00	\$261,000.00	\$2,066,000.00	\$2,066,000.00
6. Off-Site Disposal Fees	\$26,000.00	\$26,000.00	\$297,000.00	\$297,000.00
Total Direct Costs		\$394,000.00		\$2,707,000.00
7. Mobilization & Demobilization		\$947,000.00		\$855,000.00
8. Engineering and Consultants Services		\$119,000.00		\$96,000.00
General and Administration costs		\$6,000.00		\$16,000.00
10. Contingency		\$68,000.00		\$33,000.00
11. Post-closure Monitoring		\$200,000.00		\$200,000.00
Total Indirect Costs		\$1,340,000.00		\$1,200,000.00
Closure Cost - Subtotal		\$1,734,000.00		\$3,907,000.00
Closure Cost - Total		\$5,641	,000.00	

Table B2: Cost Itemised by Task- Patch Lake

Code	item lask ta	ub- ask Activity	Task	Quantity	Unit	Cost Code	Uni	it Cost	Activity Total	Subtotals	Source / Comments
DIRECT CLOSURE											
Remediation of Pe						0.500	I &	0.045.00.14	0.040	\$ 42,031	
		1 Regrade Old Tank Farm	Stake-out low-lying areas in summer to place fill	1	day	C.5.09	\$	3,815.68	\$ 3,816		For old tank farm and road restoration areas
		2	Regrade spoil piles to ensure positive drainage	200	m²	C.5.04	\$	2.38	\$ 476		Assumed 10% of total area
		3	Cover area with 1 m thermal cover of rock	3,000	m ³	C.4.08	\$	12.04	\$ 36,126		Assumes 10% of area requires 0.3m of fill
. =	2 2	1 Erosion Control	Install erosion control measures (coco matting)	200	m ²	C.5.07	\$	3.48	\$ 696		Assumed 10% of total area
PLF	2 3	1 Reclaim winter road tracks	Fill in low lying areas (fill from spoil piles) - Road to Patch Lake	119	m ³	C.5.06	\$	7.68	\$ 917		Assumes 25% of area requires 0.3m of fill
Stabilization of Ta			B 1 7 7 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.000	2	0.5.05	I &	5.40		\$ 19,241	
	3 1	1 Regrade	Regrade spoil piles to ensure positive drainage (w/ Excavator)	3,630	m²	C.5.05	\$	5.13			
		2 Erosion Control	Install erosion control measures (coco matting)	182	m²	C.5.07	\$	3.48	\$ 632		Assumed 5% of total area
	n and Drainage Co				2		1.	1 .	_	\$ 1,500	
PLF		1 Revegetate regraded areas	Revegetate old tank farm and regraded road surfaces		m²	C.3.02	\$	0.77			SRK estimate from previous closure cost estimates
		1 Drianage control	Install silt fencing	1	LS		\$	1,500.00	\$ 1,500		Assumes 3 thermal berms cosntructed and 100 m of silt fencing installed
	ydrocarbon Conta	aminated Soils			2		1.			\$ 328,047	
	5 1	1	Excavate impacted soil and place in megabags	264	m ³	C.3.03	\$	97.95	\$ 25,850		
		2	backfill with ROQ	264	m ³	C.4.08	\$	12.04	\$ 3,178		
. =	•	3	Regrade and reshape	291	m ²	C.5.05	\$	5.13	\$ 1,492		
		4	In-Situ bioremediation	39	m ³	H.07	\$	260.00	\$ 10,140		
Off-site Shipping 1					2		_			\$ 260,997	
	7 1	<u>1</u>	Non-hazardous waste	0	m ³	S.03	\$	200.00	\$ -		
	· · · · · · · · · · · · · · · · · · ·	2	Hydrocarbon contaminated soil	264	m ³	S.01	\$	989.00	\$ 260,997		
Off-Site Disposal I					2					\$ 26,390	
PLF	8 1	1	Non-hazardous waste	0	m ³	M.10	\$	5.51	\$ -		
PLF	8 1	2	Hydrocarbon contaminated soil	264	m ³	H.05	\$	100.00	\$ 26,390		
			SUBTOTAL DIRECT COSTS							\$ 678,206	
NDIRECT CLOSU	JRE COSTS										
Contingency										\$ 67,821	
	1 1	Contingonar	10.0/ of direct costs (loss off sits shipping and disposal foca)	10%	0/	×	\$ 6	678,205.71	\$ 67,821		
		,	10 % of direct costs (less off-site shipping and disposal fees)	10%	70	Х	\$	070,205.71	Φ 07,021	ф <u>000</u> 00	
	ization & Demobili 2 1	1 Winter Closure activities	Mobilization	1	ls		Φ 2	335,905.91	\$ 335,906	\$ 688,607	
		2	Demobilization	1	ls	X		352,701.20			
	struction/Maintena		Demodilization	<u> </u>	15		Ψ	332,701.20	ψ 332,701	\$ 25,680	
-	3 1	1 Construct and maintain Winter Road	Winter 2012	0.7	km	M.08	\$	18,342.50	\$ 12,840	Ψ 20,000	Mobilise equipment for Phase 1
-	3 1	2	Winter 2013	0.7	km	M.08	\$	18,342.50			
Equipment stand-	-by									\$ 233,168	
	4 1	1 Stand-by time	Spring 2012	92.0	days	Х	\$	1,084.50			May 1st to July 31
	4 1	2	Fall 2012	123.0	days	Х	\$	1,084.50	\$ 133,394		October 1st to January 31st
General and Admi	inistration costs									\$ 5,651	
		- Travel allowance		3.00	person	OC.04	\$	750.00	\$ 2,250		Travel allowance for hydrocarbon decontamination crew
		- Camp Management		-	day		\$	677.00	\$ -		
		- Camp Operations		22.7 p	er day per person	OC.02	\$	150.00	\$ 3,401		In all idea 40 man months for his disease have decembers decembers.
	4 4	- Camp Rental		-	year	OC.03	\$ 4	400,000.00	\$ -	\$ 73,813	Includes 12 man-months for hydrocarbons decontamination
Field support	5 1	- Supervision		ρ	days	Х	\$	789.72	\$ 5,968	φ /3,813	
	-	Equipment maintenance support - Mechanic	10% of project duration	1	days	X	\$	852.60			
		- Helicopter Support	1070 of project duration	8	days	X	\$	2,100.00			4 hrs min. per day
	5 3			- U		^	Ψ	_,	- 01,200	\$ 45,000	
=	• •						¢	15,000.00	\$ 15,000		
=	ontamination	- Engineering Design		1	LS	X	Ψ		φ 15,000 I		
-	ontamination	Engineering DesignConfirmatory Sampling and Analysis		1	LS LS	X X	\$	30,000.00			
- Hydrocarbon decc - -	ontamination 6 1 6 2			1		X X	\$		\$ 30,000	\$ 200,000	
- Hydrocarbon deco - - - Post-closure Moni	ontamination 6 1 6 2 iitoring		for 5 years	5.0		x x			\$ 30,000	\$ 200,000	
- Hydrocarbon deco - - - Post-closure Moni	ontamination 6 1 6 2 ditoring	Confirmatory Sampling and Analysis Yearly Monitoring Cost			LS	х	\$	30,000.00 \$	\$ 30,000	\$ 200,000	Includes 1 week monitoring site work, sample testing, monitoring report, geotechnical inspection and
	ontamination 6 1 6 2 iltoring 8 1 6 1	Confirmatory Sampling and Analysis Yearly Monitoring Cost Contractor profit	% of direct and other indirect costs (excluding contingency)	5.0	LS LS %	x	\$ 1,7	30,000.00 \$ 40,000.00 \$ 750,123.43 \$	\$ 30,000 \$ 200,000 \$ -		Includes 1 week monitoring site work, sample testing, monitoring report, geotechnical inspection and
Hydrocarbon deco	ontamination 6 1 6 2 iitoring 8 1 6 1 6 2	Confirmatory Sampling and Analysis Yearly Monitoring Cost Contractor profit Bonding		5.0 0% 0%	LS LS %	х	\$ \$ 1,7 \$ 6	30,000.00 \$ 40,000.00 \$ 750,123.43 \$ 678,205.71 \$	\$ 30,000 \$ 200,000 \$ - \$ -		Includes 1 week monitoring site work, sample testing, monitoring report, geotechnical inspection and
Hydrocarbon deco	ontamination 6 1 6 2 iitoring 8 1 6 1 6 2	Confirmatory Sampling and Analysis Yearly Monitoring Cost Contractor profit	% of direct and other indirect costs (excluding contingency) % of direct cost	5.0	LS LS %	x	\$ \$ 1,7 \$ 6	30,000.00 \$ 40,000.00 \$ 750,123.43 \$ 678,205.71 \$	\$ 30,000 \$ 200,000 \$ -	\$ -	Includes 1 week monitoring site work, sample testing, monitoring report, geotechnical inspection and report, vegetation specialist inspection and report
Hydrocarbon deco	ontamination 6 1 6 2 iitoring 8 1 6 1 6 2 6 4	Confirmatory Sampling and Analysis Yearly Monitoring Cost Contractor profit Bonding	% of direct and other indirect costs (excluding contingency)	5.0 0% 0%	LS LS %	x	\$ \$ 1,7 \$ 6	30,000.00 \$ 40,000.00 \$ 750,123.43 \$ 678,205.71 \$	\$ 30,000 \$ 200,000 \$ - \$ -		Includes 1 week monitoring site work, sample testing, monitoring report, geotechnical inspection and report, vegetation specialist inspection and report

PatchLake&Windy_ClosureCostEstimate_1CH008.069_MMM_IM_PL_rev09_sw

Table B3: Cost Itemised by Task- Windy Camp

Company Comp	Work Area Code	Item	Task	Sub-tasi	Activity	Task	Quantity	Unit	SRK Cost Code	Unit Cost	Activity Total	Subtotals (2012 rates)	Source / Comments
Second Column 1985	DIRECT COSTS Collection and Disposa	al of Hazar	dous W	aste								\$5,463	
Second Content of Second Con	WC	3	1	1	Consolidate and haul to jetty								Collect chemicals from all buildings and shops
Wilson S. S. Peter valor young and all young of substitutions of the substitution of the substitut		3	1			Haul containers to jetty for shipping off-site	2.8	m ³	C.5.09	\$ 3.97	\$11		
Column C	Salvaging Usable Equi	ipment and	Supplie	9 S	Potable water supply system	Decommission	1.0	ls	C 2 02	\$ 1.166.24	\$1 166	\$22,722	Disconnect intake plumbing electrical disconnect filtration unit
March 1		5	2	2	Totable water eapply eyetem								Disconnect intake, planning, destroat, disconnect intaken and
Company Comp		5	2	3		Load treatment units and tanks on skids for transport		m ³		\$ 740.48	\$2,962		Load treatment unit and holding tanks on skids and haul to Doris Camp
March 1		5	3	1	Waste incinerator		1.0		C.2.03				
Column C		5	3	3									piace residual waste in empty fuel drums
Wide	WC	5	3	4		Load onto skids for transport off site (other sites/third party)	6.8		C.5.14	\$ 740.48	\$4,998		
Fig. 1 Section Comment Com		5		1	Camp Heating Systems	Decommission electrical, mechanical							
Wilson Communication Com						Load reuseable components in containters for transport to Doris Camp							
March 1		5	5	1 1									
Part		5	7	1					C.5.08				
West	WC	5	7	2				m ³	C.5.07				
Manufacture demonstrate transport (1996) 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		ing Structu	res									\$164,453	
Column C	WC	6	1	1	Building Demolition								
March 1	wc	-	- 1	2									
Parameter Para		-	1										
Color Colo			edation			Trada to Troporto Bay for Shipping on Site	1,000.4			0.07	\$0,077		
Part		7	1	1									Rockfill sourced from water intake bldg. pad foundation
Control of September Processing September Processing September Control of September		7	2	1									
NCC 2 1 1 Dennino Delito Colocicion Colocicio Colocicio Colocicio Colocicio Colocicio Colocicio Colocicio Colocicio Colo	Collection and Dispose	7	3		Fill in low-lying areas of winter road	Fill in low-lying areas with rock fill to prevent ponding	225.0	m³	C.6.03	\$ 7.68	\$1,728	¢E 400	
March 1 2 Colors displayed from Load displayed data from construct to response to market in Professor Supplies			1	1	Summer Debris Collection	Collect misc debris scattered around site and stockpile	40.000.0	m ²	C.5.01	\$ 0.13	\$5.132		
Wide 3 1 Continued services Main deposed being July Services Main deposed by July Services		9	1	2									Assumed one Seacan of garbage
Miles				1	Off-site disposal items	Haul materials to Roberts Bay Jetty	30.0	m ³	C.5.09	\$ 3.97	\$119		
Wide 10 2 2 1 Regards Sale of the hydrograms as some to pace all 10 days 6,80 3 3,15 5 5 5 5 5 5 5 5 5			Control							I -	_	\$9,972	
Windle 1			1 2	1 1		Stake out low-hing areas in summer to place fill				\$ 0.77	\$2,036 \$3,816		SRK estimate from previous closure cost estimates
No. 10 2 3 File host-yay passed with sold province provincing 150 m² C.6.10 5 7.66 5.115 5.076 5.115 5.076 5.000			2	2	regrade			m ²					
Wilson 1		10	2	3									
WC 1 2 1 Excrete and half and of half and folder of agoing Excrete and place in nodes Controlled Section Sec			ntamina	ted Soils								\$97,609	
WC 1 2 2 Pice megalage in containers 630 each C.5.04 \$ 1.404 \$3,970 \$			1	111						\$ 260.00			
WC 11 2 3			2	1 2	Excavate and haul soil offsite for disposal								see HC Contaminated Soil Quantities sheet
WC 11 3 2 Excorde and has not body ONE During Excorde and place in asolas 6.6.0 m² C.5.18 \$ 6.75 \$ 4.275			2										
WC		11	3	1	Excavate and haul soil to Doris OVB Dump								
WC			3	2				each	C.5.04				
WC 1			3	-									
## Significance of Telephoral For Elephoral			3		Real-filling even vation with arreshed real-	Load Haul Dump Place from Quarry D (load than 1 km)							
WC 1 1 Sip off-site for disposal by barge Hazardous wester 2,8 m² SiQ \$ 20,00 \$ 5600 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$			4		Backfilling excavation with crushed rock	Load, Haul, Dump, Place from Quarry D (less than 1 km)	309.0	m	0.5.10	\$ 12.04	\$7,102	\$2,066,149	
## 1		12	1	1	Ship off-site for disposal by barge	Hazardous waste	2.8	m ³	S.02	\$ 200.00	\$560	. , ,	
## 1							2.347.0	m ³	S.03				
Mode			1	2									
WC 13	Off-Site Disposal Fees		1	3		Hydrocarbon contaminated soils	1,614.0	m-	5.01	\$ 989.00	\$1,596,197	\$297.299	
WG 13			1	1	Disposal fees in licensed facility	Hazardous waste		LS	M.09	\$ 10,000.00	\$10,000	4203,200	
Final Reclamation of Drill Holes WC 14 1 1 Drill Hole Decommissining and Reclamation Cut off drill steel and cap; backfill depressions 1,0 LS \$ 19,711,72 \$19,712 \$19		13	1	2				m ³			\$12,928		
WC 14 1 1 Drill Hole Decommissioning and Reclamation Cut off drill steel and cap; backfill depressions 1,0 LS \$ 19,711.72 \$19,712		13 Orill Holos	1	3		Disposal fees at Hay River	2,743.7	t	H.05	\$ 100.00	\$274,372	\$10.712	
NORECT CLOSURE COSTS S2,686,952 S3,350 S	WC		1	1	Drill Hole Decommisioning and Reclamation	n Cut off drill steel and cap; backfill depressions	1.0	LS		\$ 19.711.72	\$19.712	φ19,712	
Notification Contingency 1					•								
Contingency						TOTAL DIRECT COSTS	i .					\$2,696,952	
Contingency		COSTS											
Mobilization & Demobilization	Contingency	1	1		Contingency	10% of direct costs	109/	0/		\$333.503	¢33 3E0 3A	\$33,350	
Part	Mobilization & Demobi	ilization					1076	70				\$ 855,030	
General and Administration costs		2	1	1	Summer 2012 - Closure activities								Equipment relocated from Patch Lake
Travel allowance		2	1	2	Summer 2013 - Windy Camp to Hay River	Demobilization	1.0	ls	х	\$ 437,942.03	\$437,942	ê 4F.0F4	Equipment demobilised to Edmonton
Camp Operations	General and Administr	5	1		Travel allowance		5	nerson	OC 04	\$ 750.00	\$3.750	\$ 15,654	
Column C		5	2		Camp Management		-	day	OC.01	\$ 677.00	\$0		
Field support	÷	5	3		Camp Operations		80.7		rs OC.02	\$ 150.00	\$12,104		
Supervision 16.1 days x \$ 1,172 \$18,921	Field support	5	4	-	Camp Rental		-	year	OC.03	\$ 400,000.00	\$0	\$ 20.573	
Melicopter Support	-	6	1		Supervision		16.1	days	х	\$ 1,172	\$18,921	20,070	
Hydrocarbon decontamination		6	2			ic 10% of project duration	2				\$1,651		
Post-closure Monitoring 1	Hudrocarbon doco	6 mination	3		Helicopter Support			days	х	\$ 2,100	\$0	¢ 75.000	minimum of 4 hr per day
Post-Closure Monitoring	nydrocarbon decontar	7	1		Engineering Design		1.0	LS	×	\$ 25,000	\$25,000	\$ 75,000	
8 1 1 Yearly Monitoring Cost for 5 years 5.0 LS x \$40,000 \$200,000 inspection and report; geotechnic inspection and report; yeetation specialist inspection and report yeetation y	-	7	2		Confirmatory Sampling and Analysis					\$ 50,000	\$50,000		
Nearly Monitoring Cost For 5 years Substitute For 5 years Substitute Su	Post-closure Monitorin	ng										\$ 200,000	
Other - 9 1 - Contractor profit % of direct and other indirect costs (excluding contingency) - % of \$ 3,663,408 \$ 0.00 included in equipment unit rates and POH (i.e. Production Overhead) labor cost - 9 2 - Bonding % of direct cost - % of \$ 2,696,952 \$ 0 Subtotal Indirect Costs SUBTOTAL INDIRECT COSTS \$ 1,199,807		8	1	1	Yearly Monitoring Cost	for 5 years	5.0	LS	x	\$ 40,000	\$200,000		
- 9 1 - Contractor profit % of direct and other indirect costs (excluding contingency) - % of \$ 3,683,408 \$0.00 included in equipment unit rates and POH (i.e. Production Overhead) labor cost - 9 2 - Bonding % of direct cost - % of \$ 2,696,952 \$0 Subtotal Indirect Costs SubTOTAL INDIRECT COSTS \$ 1,199,807	Other								1		:'	\$ -	
Subtotal Indirect Costs SUBTOTAL INDIRECT COSTS \$ 1,199,807		9	1		Contractor profit	% of direct and other indirect costs (excluding contingency)			of		\$0.00		included in equipment unit rates and POH (i.e. Production Overhead) labor cost
	•	9	2	-	Subtotal Indirect Costs	% of direct cost		%	of	\$ 2,696,952	\$0	£ 1 100 007	
40,000/FLAG10-1UIAL 90,000,(00	OLOGUED COOTO TOTAL				Gubrotal mullect GoStS	SUBTOTAL INDIRECT COSTS	<u>' </u>						
	CLUSURE COSTS - TOTAL											\$3,030,750	

Patch Lake At Vindy Course Code Strong L. Code Strong Strong

Table B4. Drill Hole Abandonments Notes:

Windy Camp

- 1 Assume 10 holes with a 2x5 m drill pad to be remediated.
- 2 No backfilling of holes is required
- 3 Unit rates for regrading drill pad surface and filling drill holes are found on the Windy Task Unit rate worksheet.

	Activity	Task	Quantity	Unit	Cost Code	Un	it Cost	Activity Total	Subtotals	Source / Comments
DIRECT C	COSTS									
Other Are	eas									
Drill Sites	3								\$19,712	
	Reclaim Drill holes	Cut of top of drill pipes and cap	889	ea	C.4.08	\$	20.74	\$18,437		412 holes @Naartok + 19 @Wolverine + 385 @Doris
		Load debris into containers for disposal	10	m ³	C.5.02	\$	8.16	\$81		
	Regrade	Fill in low-lying areas (assumed sourced within 0.5km)	100	m ³	C.6.03	\$	7.68	\$768		assume 10 holes to be remediated; 2x5 m area
	Stabilize	Supply and place coconut matting	100	m ²	C.6.04	\$	3.48	\$348		
	Revegetate	Seed/Fertilize, by hand, high application rate	100	m ²	C.6.10	\$	0.77	\$77		
Subtotal I	Direct Costs - Othe	r Areas							\$19,712	
TOTAL D	IRECT COSTS								\$19,712	

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Table B5. Mob/Demob cost

Windy Mob/Demob Cost Notes

- 1 It is assumed that no equipment is available on site
- 2 All equipment is hauled from Edmonton to Hay River
- 3 All equipment is shipped by barge from Hay River to Hope Bay
- 4 The shipping cost is calculated on a revenue-tonne basis (Hay River to Cambridge Bay). 2011 rates (from NTCL) +5% fuel surcharge+5% rate increase to 2012
- 5 Demobilisation is assumed to have the same cost as mobilisation

No. of units	Description	Units	Quantity	Unit cost	2012 Task cost	Notes
	Crew					
	Note: Labour costs included in loaded Labour Unit		ksheets			
	Construction equipment	Footprint				
1	Bobcat	m ³	11.0	\$ 332.96	\$ 3,657.90	From Hay River to Roberts Bay
1	Loader	m^2	10.2	\$ 332.96	\$ 3,400.45	From Hay River to Roberts Bay
1	Dozer	m^2	20.3	\$ 332.96	\$ 6,750.26	From Hay River to Roberts Bay
1	Excavator	m^2	38.1	\$ 332.96	\$ 12,687.55	From Hay River to Roberts Bay
1	small equipment	m ³	24.1	\$ 332.96	\$ 8,025.01	From Hay River to Roberts Bay
1	Trucks (CAT 735)	m ²	41.6	\$ 332.96	\$ 13,860.35	From Hay River to Roberts Bay
1	Tractor trailer	m ³	86.8	\$ 332.96	\$ 28,907.95	From Hay River to Roberts Bay
1	Crewcab pickup (Ford F350)	m^3	33.8	\$ 332.96	\$ 11,254.35	From Hay River to Roberts Bay
	Truck equipment to Hay River (6 trucks)	each	8	\$ 15,000.00	\$ 120,000.00	= hauling 8 trailers from Edmonton / source: Doris cost estimate
SUBTOTA	L MOBILISATION				\$ 417,087.64	
SUBTOTA	L DEMOBILISATION				\$ 437,942.03	Assumes same cost as mobilisation, updated by 5%
CLOSURE	COST TOTAL				\$ 855,029.67	
		%	100%	\$ 417,087.64	\$ 417,087.64	
		%	\$ 437,942.03			
Total assi	gned to Windy Closure				\$ 855,029.67	

Camp costs

Description	Units	Cost Code	Quantity	Unit Cost	Task Cost	
Camp Management	day	OC.01	0	\$677.00	\$0	
Camp Operations	per day per person	OC.02	81	\$150.00	\$12,104	5 person crew for 21 days
						assumed that people will stay at
Camp Rental	year	OC.03	0	\$400,000.00	\$0	Doris Camp
Travel allowance	charter flights	OC.05	0	\$10,000.00	\$0	charter flights for 15 person crews
	commercial flights	OC.04	5	\$750.00	\$3,750	maximum of 2 weeks rotations
					\$15,854	

Table B6. Indirect Unit Rates for Patch Lake

Mob/Demob Costs
Crew mobilization costs included in loaded labour rates

The barging fee for equipment is calculated on a square foot basis

No. of units	Description	Units	Quantity	Unit cost	2012 Task cost	Notes
	Crew					
	Note: Labour costs included in loaded Labour Unit Rates	found on the	Unit Rates	worksheets		
	Construction equipment	Footprint				The shipping fee for equipment is calculated on a revenue-tonne basis (Hay River to Cambridge Bay). 2011 rates from NTCL+5% fuel surcharge+5% rate increase to 2012
0	Bobcat	m^3	11.0	\$ 332.96	\$ -	From Hay River to Roberts Bay
1	Loader	m^2	10.2	\$ 332.96	\$ 3,400.45	From Hay River to Roberts Bay
1	Dozer	m^2	20.3	\$ 332.96	\$ 6,750.26	From Hay River to Roberts Bay
1	Excavator	m ²	38.1	\$ 332.96	\$ 12,687.55	From Hay River to Roberts Bay
0	small equipment	m ³	24.1	\$ 332.96	\$ -	From Hay River to Roberts Bay
1	Trucks (CAT 735)	m ²	41.6	\$ 332.96	\$ 13,860.35	From Hay River to Roberts Bay
0	Tractor trailer	m ³	86.8	\$ 332.96	\$ -	
1	Crewcab pickup (Ford F350)	m ³	33.8	\$ 332.96	\$ 11,254.35	
-	Truck equipment to Hay River (6 trucks)	each	8	\$ 15,000.00	\$ 120,000.00	= hauling 8 trailers from Edmonton / source: Doris cost estimate
	Subtotal Demobilisation				\$ 335,905.91	
	Subtotal Demobilisation					Assumes same cost as mobilisation, updated by 5%
	Total				\$ 688,607.11	
	% mobilisation assigned to Wir	ndy Closure				
	% assigned to Windy Closure		100%	\$ 352,701.20		
	Total assigned to Patch Lake	Closure			\$ 688,607.11	

Camp costs

Description	Units	Cost Code	Quantity	Unit Cost	Task Cost	
Camp Management	day	OC.01	0	\$677.00	\$0	it is assumed that people will be staying at Doris Camp
Camp Operations	per day per person	OC.02	23	\$150.00	\$3,401	3 person crew for 10 days
Camp Rental	year	OC.03	0	\$400,000.00	\$0	it is assumed that people will be staying at Doris Camp
Travel allowance	charter flights	OC.05	0	\$10,000.00	\$0	charter flights for 15 person crews
	commercial flights	OC.04	3.00	\$750.00	\$2,250	maximum of 2 weeks rotations
					\$5,651	

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Table B8. Unit Rates for Patch Lake

Table Bo. C	Jnit Rates for Patch Lake					
Cost Code	Item		Unit rate	Unit	Comment	Source
Equipment		_				
E.01	Dozer (CAT D7)	\$	166.50	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.02	Dozer (CAT D4)	\$	86.80	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.03	Truck (CAT 730)	\$	138.70	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.04	Excavator (CAT 330 CL)	\$	185.00	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.05	Loader (CAT IT28/930)	\$				Nuna 2012 Equipment Rates
		\$	82.30	hr	hourly equipment rate (less operator)	
E.06	Skidsteer (Bobcat)	_	80.10	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.07	Welding Equipment	\$	52.58	day	300 Amps, gas/diesel driven	2009 BC Blue Book + 10% Northern Allowance+ 15% rate increase to 2012
E.08	Power washer	\$	110.00	day	Hot water pressure washer - 3000 PSI	www.abtoolrentals.com/Painting-Pressure-Washing.page + 10% rate increase to 2011
E.09	Drum crusher	\$	35.60	hr	30 tones, mobile	RSMeans, 2005; adjusted to 2009 dollars based on CPI +15% rate increase to 2012
E.10	Oil-water separator	\$	27.50	hr	10 GPM, underground	RSMeans, 2005; adjusted to 2009 dollars based on CPI +15% rate increase to 2012
E.11	Air Track Drill	\$	269.34	hr		2011 BC Blue Book + 10% Northern Allowance + 5% rate increase to 2012 +10% fuel facto
E.12	Helicopter	\$	2,100.00	hr	Fuel surcharge applies per operation hours	I Miskolczi (from Angela Holtzapfel@Newmont ESR)
E.13	Clemro Crusher	\$	787.40	hr	200 tons/hr (cost less operator)	Nuna 2012 Equipment Rates
E.14	Tractor Trailer (6 axle lowbed+booster)	\$	71.78	hr	hourly equipment rate (less operator)	2011 BC Blue Book + 10% Northern Allowance + 5% rate increase to 2012
E.15	Flatbed truck (6x4, 5 tonne)	\$	24.83	hr	hourly equipment rate (less operator)	2011 BC Blue Book + 10% Northern Allowance + 5% rate increase to 2012
Materials						
M.01	Explosives	\$	21.38	m ²	15% freight cost added	RSMeans, 2005; adjusted to 2009 dollars based on CPI+15% rate increase to 2012
M.02	Liner - HDPE	\$	28.93	m ²	supply and install	from JDS (Surface Water Management Options Analysis)
M.03	Liner - geotextile	\$	26.62	m ²	supply and install	from JDS (Surface Water Management Options Analysis)
M.04	Fuel (Diesel)	\$	1.17	L	2008 Landed fuel cost at Hope Bay	Maritz (from Jeff Reinson @ Newmont)
M.05	Silt Fencing	\$	1.32	m	15% freight cost added	Cost Mine 2011; original price quoted in linear ft
M.06	Coco-matting	\$	1.79	m ²	15% freight cost added	Cost Mine 2011; original price quoted in sincer it
M.07	Seed/Fertilizer	\$	15.67	kg	15% freight cost added	Arctic Alpine seed mix (2009)
M.08	Winter road	\$	16,675.00			NUNA Logistics 2009 (from Court Smith) + 15% cost increase to 2012
M.09			10.000.00	km 20 ft seacan	open and maintain for 2 months	SRK estimate
	Hazardous Waste Disposal fee (@Hay River)	\$.,		Disposal + handling and cleaning fee	
M.10	Demolition Debris Disposal Fee (@Hay River)	\$	5.51		Disposal + handling fee	Personal communication with Rob Jamieson@Hay River Disposals Ltd.
M.11	Landfill Dump Fee (@Quarry#2 landfill)	\$	57.25	m ³	Dump fee = \$71/t (0.733 t/m ³ bulk density)	Maritz (from Newmont)
M.12	Bentonite chips	\$	570.96	m ³	In 50 pound bags, 15% freight cost added	Holly North Production Supplies Limited
Labour				<u> </u>		
L.01	Labour general	\$	56.96	hr		Yukon Gov. Fair Wage Sched. Apr. 2012 (82% Loading Rate Added)
L.02	Labour - Trades	\$	85.26	hr	Mechanic, Electrician, Welder, Plumber, Carpenter et	Yukon Gov. Fair Wage Sched. Apr. 2012 (82% Loading Rate Added)
L.03	Light Equipment Operator	\$	65.81	hr	Trucks	Yukon Gov. Fair Wage Sched. Apr. 2012 (82% Loading Rate Added)
L.04	Heavy Equipment Operator	\$	71.32	hr	Dozer, excavator	Yukon Gov. Fair Wage Sched. Apr. 2012 (82% Loading Rate Added)
L.05	Supervision	\$	97.70	hr		Yukon Gov. Fair Wage Sched. Apr. 2008 (82% Loading Rate Added)*+15% rate increase to 2012
L.06	Engineer (Consultant)	\$	145.00	hr	Int./Junior Eng.	SRK-Estimate (all inclusive)
Shipping						
S.01	Outbound Shipping - Soils	\$	989.00	m ³	1.7 t/m3 bulk density	(7.75 m³/seacan based on 29,000 lbs limit per seacan, seacan is 38.5 m³) - from NTCL 17APR 12
S.02	Outbound Shipping - Haz Waste	\$	200.00	m ³	1.0 t/m ³ bulk density	(7.75 m³/seacan based on 29,000 lbs limit per seacan, seacan is 38.5 m ³) - from NTCL 17APR 12
S.03	Outbound Shipping - Demolition	\$	200.00	m ³	0.733 t/m ³ bulk density	\$7661/seacan (seacan is 38.5 m ³) - from NTCL 17APR 12
Hydrocarbo	on Soils and Hazardous Waste					
H.01	Excavate impacted soil	\$	19.18	m ³		WESA estimate
H.02	Low temperature thermal desorption	\$	100.00	m ³		WESA estimate
H.03	Rehydrate and backfill	\$	10.69	m ³		WESA estimate
H.04	Regrade and reshape	\$	2.38	m ²		WESA estimate
H.05	Tipping Fee for HC Soils at Hay River	\$	100.00	tonne		Communication with Hay River Landfill Tsharp 18APR12
H.06	Tipping Fee for Haz Waste at Disposal Site	۳	. 30.00			The state of the s
		-	260.00	m ³		\$260,000/1000m ³ EBA Report (Evaluation of Risk and Remedial Options, 2010)
	IIn-situ Rioremediation	Œ		111	1	φεου,υυυ/ τυυυπ ΕΦΑ κερυπ (Evaluation of Kisk and Kemedial Options, 2010)
Stand by a	In-situ Bioremediation	\$	200.00			
	quipment rates	Ť			EQ 9/ hourly aguinment rate (less exerctor)	Nuna 2012 Equipment Pates
SB. 01	quipment rates Dozer (CAT D7)	\$	83.25	hr	50 % hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
SB. 01 SB. 02	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL)	\$	83.25 92.50	hr hr	50 % hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
SB. 01 SB. 02 SB. 03	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL) Loader (CAT 966 F)	\$	83.25 92.50 41.15	hr hr hr	50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator)	Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates
SB. 01 SB. 02 SB. 03 SB. 04	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL) Loader (CAT 966 F) Skidder (CAT 242B)	\$	83.25 92.50	hr hr	50 % hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
SB. 01 SB. 02 SB. 03 SB. 04 Note: Loadi	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL) Loader (CAT 966 F) Skidder (CAT 942B) ng Rate from Nuna	\$	83.25 92.50 41.15	hr hr hr	50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator)	Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates
SB. 01 SB. 02 SB. 03 SB. 04 Note: Loadi	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL) Loader (CAT 966 F) Skidder (CAT 242B) ng Rate from Nuna	\$ \$	83.25 92.50 41.15 40.05	hr hr hr hr	50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator)	Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates
SB. 01 SB. 02 SB. 03 SB. 04 Note: Loadi Owner's co	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL) Loader (CAT 966 F) Skidder (CAT 942B) ng Rate from Nuna	\$	83.25 92.50 41.15 40.05	hr hr hr	50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator)	Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates
SB. 01 SB. 02 SB. 03 SB. 04 Note: Loadi Owner's co OC.01 OC.02	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL) Loader (CAT 966 F) Skidder (CAT 242B) ng Rate from Nuna st Camp management Camp operations	\$ \$ \$ \$	83.25 92.50 41.15 40.05 677.00 150.00	hr hr hr hr	50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator) includes food and camp maintenance	Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates
SB. 01 SB. 02 SB. 03 SB. 04 Note: Loadi Owner's co	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL) Loader (CAT 966 F) Skidder (CAT 242B) ng Rate from Nuna st Camp management	\$ \$ \$ \$	83.25 92.50 41.15 40.05	hr hr hr hr	50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator)	Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates
SB. 01 SB. 02 SB. 03 SB. 04 Note: Loadi Owner's co OC.01 OC.02 OC.03	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL) Loader (CAT 966 F) Skidder (CAT 242B) ng Rate from Nuna st Camp management Camp operations	\$ \$ \$ \$	83.25 92.50 41.15 40.05 677.00 150.00	hr hr hr hr day	50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator) includes food and camp maintenance	Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Newmont Newmont
SB. 01 SB. 02 SB. 03 SB. 04 Note: Loadi Owner's cc OC.01 OC.02 OC.03 OC.04	quipment rates Dozer (CAT D7) Excavator (CAT 330 CL) Loader (CAT 966 F) Skidder (CAT 242B) ng Rate from Nuna set Camp management Camp operations Camp rental	\$ \$ \$ \$	83.25 92.50 41.15 40.05 677.00 150.00 400,000.00	hr hr hr hr day day year	50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator) 50 % hourly equipment rate (less operator) includes food and camp maintenance 25 man mobile camp	Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates Newmont Newmont

Fuel Rate Calculations

Fuel Rate (Calculations			
Equipment	НР	Fuel Consumption Factor (L/hr/HP)	Fuel Rate (\$/hr)	Fuel Rate Source
Dozer	240	0.135	\$37.91	CAT Handbook
Dozer	84	0.135	\$13.27	CAT Handbook
Truck	435	0.065	\$33.08	CAT Handbook
Excavator	268	0.130	\$40.76	CAT Handbook
Loader	283	0.121	\$40.06	CAT Handbook
Grader	62	0.14	\$10.16	CAT Handbook
Welding Equipment	N/A	-	\$3.23	Estimated
Power Washer	11	0.1	\$1.29	ABToolRentals Catalogue
Drum Crusher	N/A	-	\$3.23	Estimated
Air Track Drill	215	0.13	\$32.70	CAT Handbook
Helicopter	-	-	\$100.00	Estimated
Celmro Crusher	200	0.13	\$30.42	Estimated (Chris Eliott)

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Cost Code	Rates for Windy Camp	Unit rate	Unit	Comment	Source
auipment	Item	Unit rate	Unit	Comment	Source
E.01	Dozer (CAT D7)	\$ 166.50	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.02	Dozer (CAT D4)	\$ 86.80	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.03	Truck (CAT 730)	\$ 138.70	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.04	Excavator (CAT 330 CL)	\$ 185.00	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.05	Loader (CAT IT28/930)	\$ 82.30	hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.06		\$ 80.10			
	Skidsteer (Bobcat)		hr	hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
E.07	Welding Equipment	Ψ 02.00	day	300 Amps, gas/diesel driven	2009 BC Blue Book + 10% Northern Allowance+ 15% rate increase to 2012
E.08	Power washer	\$ 110.00	day	Hot water pressure washer - 3000 PSI	www.abtoolrentals.com/Painting-Pressure-Washing.page + 10% rate increase to 2011
E.09	Drum crusher	\$ 35.60	hr	30 tones, mobile	RSMeans, 2005; adjusted to 2009 dollars based on CPI +15% rate increase to 2012
E.10	Oil-water separator	\$ 27.50	hr	10 GPM, underground	RSMeans, 2005; adjusted to 2009 dollars based on CPI +15% rate increase to 2012
E.11	Air Track Drill	\$ 269.34	hr		2011 BC Blue Book + 10% Northern Allowance + 5% rate increase to 2012 +10% fuel facto
E.12	Helicopter	\$ 2,100.00	hr	Fuel surcharge applies per operation hours	I Miskolczi (from Angela Holtzapfel@Newmont ESR)
E.13	Clemro Crusher	\$ 787.40	hr	200 tons/hr (cost less operator)	Nuna 2012 Equipment Rates
E.14	Tractor Trailer (6 axle lowbed+booster)	\$ 71.78	hr	hourly equipment rate (less operator)	2011 BC Blue Book + 10% Northern Allowance + 5% rate increase to 2012
E.15	Flatbed truck (6x4, 5 tonne)	\$ 24.83	hr	hourly equipment rate (less operator)	2011 BC Blue Book + 10% Northern Allowance + 5% rate increase to 2012
iterials					
M.01	Explosives	\$ 21.38	m ²	15% freight cost added	RSMeans, 2005; adjusted to 2009 dollars based on CPI+15% rate increase to 2012
M.02	Liner - HDPE	\$ 28.93	m ²	supply and install	from JDS (Surface Water Management Options Analysis)
M.03	Liner - geotextile	\$ 26.62	m ²	supply and install	from JDS (Surface Water Management Options Analysis)
M.04	Fuel (Diesel)	\$ 1.17	L	2008 Landed fuel cost at Hope Bay	Maritz (from Jeff Reinson @ Newmont)
M.05	Silt Fencing	\$ 1.32	m	15% freight cost added	Material Quote: Layfield, Jan. 2008
M.06	Coco-matting	\$ 1.79	m ²	15% freight cost added	RSMeans, 2005; adjusted to 2009 dollars based on CPI
M.07	Seed/Fertilizer	\$ 15.67	kg	15% freight cost added	Arctic Alpine Seed mix+ fertilizer (2009)
M.08	Winter road	\$ 16,675.00	km	open and maintain for 2 months	NUNA Logistics 2009 (from Court Smith) + 15% cost increase to 2012
M.09	Hazardous Waste Disposal fee (@Hay River)	\$ 10,000.00		Disposal + handling and cleaning fee	SRK estimate
M.10	Demolition Debris Disposal Fee (@Hav River)	\$ 5.51	m ³	Disposal + handling fee	Personal communication with Rob Jamieson@Hay River Disposals Ltd.
M.11	Landfill Dump Fee (@Quarry#2 landfill)	\$ 57.25	m ³	Dump fee = \$71/t (0.733 t/m ³ bulk density)	Maritz (from Newmont)
M.12	Bentonite chips	\$ 570.96	m ³	In 50 pound bags, 15% freight cost added	Holly North Production Supplies Limited
bour	Bottomic ompo	ψ 0.0.00		in oo boana baga, to whoight oost aaaca	Trong
L.01	Labour general	\$ 56.96	hr	T T	Yukon Gov. Fair Wage Sched. Apr. 2012 (82% Loading Rate Added)
L.02	Labour - Trades	\$ 85.26	hr	Mechanic, Electrician, Welder, Plumber, Carpenter etc.	Yukon Gov. Fair Wage Sched. Apr. 2012 (82% Loading Rate Added)
L.02		\$ 65.81	hr	Trucks	
L.03	Light Equipment Operator Heavy Equipment Operator	\$ 71.32	hr	Dozer, excavator	Yukon Gov. Fair Wage Sched. Apr. 2012 (82% Loading Rate Added) Yukon Gov. Fair Wage Sched. Apr. 2012 (82% Loading Rate Added)
L.05				Dozer, excavator	
	Supervision		hr		Yukon Gov. Fair Wage Sched. Apr. 2008 (82% Loading Rate Added)*+15% rate increase to 2012
L.06	Engineer (Consultant)	\$ 145.00	hr	Int./Junior Eng.	SRK-Estimate (all inclusive)
nipping	Tall care and		3	I. = 3	I 3
S.01	Outbound Shipping - Soils	\$ 989.00	m ³	1.7 t/m³ bulk density	(7.75 m³/seacan based on 29,000 lbs limit per seacan, seacan is 38.5 m ³) - from NTCL 17APR 12
S.02	Outbound Shipping - Haz Waste	\$ 200.00	m ³	1.0 t/m ³ bulk density	(7.75 m³/seacan based on 29,000 lbs limit per seacan, seacan is 38.5 m ³) - from NTCL 17APR 12
S.03	Outbound Shipping - Demolition	\$ 200.00	m ³	0.733 t/m ³ bulk density	\$7661/seacan (seacan is 38.5 m ³) - from NTCL 17APR 12
S.04	Outbound Shipping - Haz Waste (HR to disposal)				
	oils and Haz Waste				
H.01	Excavate impacted soil	\$ 19.18	m ³		WESA estimate
H.02	Low temperature thermal desorption	\$ 100.00	m ³		WESA estimate
H.03	Rehydrate and backfill	\$ 10.69	m ³		WESA estimate
H.04	Regrade and reshape	\$ 2.38	m ²		WESA estimate
H.05	Tipping Fee for HC Soils at Hay River	\$ 100.00	tonne		Communication with Hay River Landfill Tsharp 18APR12
H.06	Tipping Fee for Haz Waste at Disposal Site				
H.07	In-situ Bioremediation	\$ 260.00	m ³		\$260,000/1000m ³ EBA Report (Evaluation of Risk and Remedial Options, 2010)
and-by equipr					
SB. 01	Dozer (CAT D7)	\$ 83.25	hr	50% of hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
SB. 02	Dozer (CAT D4)	\$ 43.40	hr	50% of hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
SB. 03	Truck (CAT 730)	\$ 69.35	hr	50% of hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
SB. 04	Excavator (CAT 330 CL)	\$ 92.50	hr	50% of hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
SB. 05	Loader (CAT IT28/930)	\$ 41.15	hr	50% of hourly equipment rate (less operator)	Nuna 2012 Equipment Rates
SB. 05	Skidder (Bobcat)	\$ 40.05	hr	50% of hourly equipment rate (less operator)	Nuna 2012 Equipment Rates Nuna 2012 Equipment Rates
	ate includes allowances for (EI, CPP, MSP/Benefits/Ti			100 /0 Or Hourry equipment rate (less operator)	India 2012 Equipment Nates
	ate includes allowances for (EI, CPP, MSP/Benefits/Ti	ravel/OT)			
vner's cost	To		1 .		
vner's cost OC.01	Camp management	\$ 677.00	day		Newmont
OC.01 OC.02	Camp operations	\$ 150.00	day	includes food and camp maintenance	Newmont
OC.01 OC.02 OC.03	Camp operations Camp rental	\$ 150.00 \$ 400,000.00	day year	25 man mobile camp	
OC.01 OC.02	Camp operations	\$ 150.00	day	•	Newmont

Fuel Rate Calculations

Equipment	НР	Fuel Consumption Factor (L/hr/HP)	Fuel Rate (\$/hr)	Fuel Rate Source
Dozer	240	0.135	\$37.91	CAT Handbook
Dozer	84	0.135	\$13.27	CAT Handbook
Truck	435	0.065	\$33.08	CAT Handbook
Excavator	268	0.130	\$40.76	CAT Handbook
Loader	283	0.121	\$40.06	CAT Handbook
Grader	62	0.14	\$10.16	CAT Handbook
Welding	N/A			Estimated
Equipment	N/A		\$3.23	Estimated
Power Washer	11	0.1	\$1.29	ABToolRentals Catalogue
Drum Crusher	N/A		\$3.23	Estimated
Air Track Drill	215	0.13	\$32.70	CAT Handbook
Helicopter	•		\$100.00	Estimated
Celmro Crusher	200	0.13	\$30.42	Estimated (Chris Eliott)
Tractor Trailer (6				
axle low bed +	280			Estimated based on personal communication with Kenworth
booster)		0.0315	\$10.32	·
Flatbed truck	000			Estimated based on a second consequence with Kanasada
(6x4, 5 tonne)	600	0.0196	\$13.76	Estimated based on personal communication with Kenworth

Fuel Consumption Factor	s (L per hour per HP)	
Backhoe	0.11	CAT Handbook
Excavator	0.130	CAT Handbook
Lifting	0.100	Estimated
Loader	0.121	CAT Handbook
Dozer	0.135	CAT Handbook
Grader	0.14	CAT Handbook
Truck	0.065	CAT Handbook
Compactor	0.13	CAT Handbook
Drill	0.13	Estimated
Tractor trailer	0.0196	5 MPG fuel mileage
Flathed truck	0.0315	8 MPG fuel mileage

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Table B10. Task Unit Rate Calculations for Windy Camp

B10. Task Unit Rate Calculations for Windy Camរុ							Labaur													Hauding Fuel Bote (S/br)		
								Labo							Equipn	ment				Hau	iling	= Fuel Rate [\$/hr]
				Uni	t Rates		\$ 56.96 \$ 8	5.26 \$ 145	.00 \$ 65.81		\$ 166.50	\$ 86.80	\$ 185.00	\$ 82.30	\$ 138.70	\$ 2,100.00	\$ 269.34 \$ 35.60	\$ 11.00	\$ 787.40	\$ 1.07	\$ 24.83	= Equipment/Labor Hourly Rate (\$/hr
Cost Code Item	Unit	Productivity (Unit/hr)	Total Unit Cost	Material Unit Rate	Labour Unit Rate	Equipment Unit Rate	General Tradesm Labour Electric			Heavy Equipment Operator	Dozer - CAT D7	Dozer - CAT D4	Excavator - Cat 330	Loader - CAT 966	Truck - CAT 735	Helicopter	Drill Drum crusher	Power washer	Crusher	Skid - per km/m3	Skid per km	Note / Source
Decontamination																						
C.1.01 Collect hazardous chemical waste and place in suitable containers	m ³	0.17	\$ 1,947.00	\$ -	\$ 1,453.20	\$ 493.80	3			1				1								Includes all chemicals on site / jm_Estimate
C.1.02 Drain above ground fuel storage tanl	each	0.5	\$ 227.84	\$ -	\$ 227.84	\$ -	2															Drain fuel /source - SRK estimate
C.1.03 Drain and power-wash empty fuel drums	each	12	\$ 10.41	\$ -	\$ 9.49	\$ 0.92	2											1				Drain fuel and tripple-rinse drum (collect water for treatment
C.1.04 Operate oil/water separator	each	4	\$ 45.47	\$ -	\$ 42.72	\$ 2.75	3											1				
Demolition																						
C.2.01 Decomission above ground storage tank:	each	0.5	\$ 398.36		\$ 398.36		2 1															Disconnect all fuel lines and electrical part
C.2.02 Crush empty fuel drums	each	20	\$ 15.16		\$ 9.26					1				1			1					Load/operate/unload drum crusher / source - SRK estimate
C.2.03 Cut Tank Farm geomembrane to manageable size	sq. m	80	\$ 2.14		\$ 2.14																	source - SRK estimate
C.2.04 Expose and remove tank farm liner	m ²	90.0	\$ 3.48		\$ 1.43	7				1	1		1						1			source - SRK estimate
C.2.05 Demolish wooden buildings/ shop structures/ living quarters	m ³	53	\$ 10.61		\$ 5.92	\$ 4.69	3			2	1			1					1			Demolish empty wood structures (offices, shacks, etc.)/ source - RSMeans
C.2.06 Collect miscellaneous debris from around site	m ²	2529	\$ 0.13	\$ -	\$ 0.10		3			1				1								
C.2.07 Demolish containment steel fence	Lm	25.00	\$ 17.09	\$ -	\$ 9.69	\$ 7.40	3			1			1									
Soil Remediation																						
C.3.01 Field Investigation	each	0.05			\$ 5,178.40		2	1														20 hr field investigatior
C.3.02 Revegetate (seeding&fertilising by hand; high application rate)	m ²	320.00	\$ 0.77		\$ 0.53	\$ -	3															
C.3.03 Load HC contaminated soils into megabags	m ³	3.50	\$ 97.95	\$ -	\$ 32.55	\$ 65.40	2				1				0.45							
C.3.04 Unload soils from megabags	m ³	10.00	\$ 31.33	\$ -	\$ 12.83	\$ 18.50	1			1			1									
Material Relocations																						
C.4.01 Load demolition debris/solid waste in containers	m ³	48.00	\$ 8.16	\$ -	\$ 2.97	\$ 5.18				2	1			1								
C.4.02 Unload debris from containers	m ³	132.8	\$ 3.72	\$ -	\$ 1.07	\$ 2.65				2	1		1									15 min to unload 1 seacan
C.4.03 Load large above ground storage tank on skir	each	0.5	\$ 854.40	\$ -	\$ 484.40	\$ 370.00	3		ĺ	1			1									
C.4.04 Load generator on skic	each	8	\$ 46.28	\$ -	\$ 23.16	\$ 23.13	2			1			1									
C.4.05 Haul waste to Quarry #2 in 20 ft container (33.2 m²/container), round trip	m ³		\$ -	\$ -	\$ -															18.0		Details - See Worksheet 5
C.4.06 Haul waste to Doris Camp (8.35 km), round trip	m ³	106	\$ 2.95	\$ -	\$ -	\$ -												1			18.0	Details - See Worksheet 5
C.4.07 Haul waste to Roberts Bay Jetty (13.5 km), round trip	m ³	65	\$ 1.82	\$ -	\$ -	\$ -												1			25.8	Details - See Worksheet 5
C.4.08 Load, haul, dump place: 2 trucks with <1.0km haul distance	m ³	75	\$ 12.04	s -	\$ 3.66	\$ 8.39			2	2	1		1		2							
Earth works		1				. 5.00						•	•					•	•			
C.5.01 Drill and blast	m ³	100	\$ 27.90	\$ 21.38	3 \$ 3.01	\$ 3.52	1.5	0.5		2				1		1	1					source - RSMeans
C.5.02 Install HDPE Liner	m ²	175	\$ 31.70							1			1					1				
C.5.03 Crusher: crush materials	m ³	125	\$ 10.60		\$ 2.17					3	1	+	1	1	1			1	1	1		
C.5.04 Regrade surface - rough grading, D7	m ²	100	\$ 2.38	7		•			_	1	1	+	'	<u> </u>				1	 '			source - RSMeans
C.5.05 Regrade surface - rough grading, D7 C.5.05 Regrade surface - with excavator	m ²	50	\$ 5.13						_	1		+	1					1	+			ocurso itemoune
C.5.06 Backfill depressions	m ³	20	\$ 7.68		\$ 3.57			-	+	1	1	1	'	-1		+		1	1		l	source - RSMeans
C.5.06 Backfill depressions C.5.07 Install soil stabilization measures (straw/coconut matting)	m ²	269	\$ 7.68						-	1	1	+	1	<u> </u>	 	+		1	1	1	1	source - RSMeans
	m ²	100	\$ 2.05		\$ 0.66				1	1	1		- 1		,			 	 	.	 	source - RSMeans source - SRKim estimate
C.5.08 Trackpack using loaded rock truck C.5.09 Delineation of low-lying areas	dav	0.125			\$ 0.66		` I	1	1	ļ	 				1	0.125		 	 			source - SRKjm estimate 1 day to stake low-lying areas in the field, material allowance included for stake
C.5.09 Delineation of low-lying areas C.5.10 Install silt fencing	m day	30	\$ 3,815.68				2	1		1	1				 	0.125		+	1	1	 	i day to stake low-tying areas in the field, material allowance included for stake
C.5.10 Install slit lending C.5.11 Backfill drill holes with bentonite chip	lm	100.00			5 \$ 1.14		2	-	-	1	1					+	+	1	1	1		+
Equipment relocation		100.00	Ψ 13.09	Ψ 17.95	1.14 بورد	Ψ -	- 1												1			
C.6.01 Dozer relocation	km	8	\$ 29.73	Is -	\$ 8.92	\$ 20.81		1	1	1 1	1	T			1			T	T	1	1	
C.6.02 Excavator relocation	km	8	\$ 32.04							 	 	+	1		l l	-		1	†			
C.6.03 Loader relocation	km	15	\$ 10.24		\$ 4.75					1	it	+		1	l l	-		1	†			
			÷ .5.24	7		J. 73	1 1											1	1			

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Table B11. Task Unit Rate Calculations for Windy Camp

										Labarra								F						1
				Ur	it Rates		\$ 56.0	6 \$ 85.26	\$ 85.26	\$ 85.26 S	\$ 145 00 \$	65.81 \$ 71.3	\$ 166.50	\$ 185.00	\$ 8230 \$	138 70 \$	71 78 \$	24.83 \$ 2,100	\$ 269.3	4 \$ 35.60	\$ 11.00	1 \$ 526	\$ 787.40	
Cost Stem	Unit	Productivity (Unit/hr)	Total Unit Cost	Material Un Rate			nent en no	Trades - Electrical	Trades -	Trades - Plumbing	Engineer/ Technician	Equipment Operator Heavy Equipment Operator	Dozer - CAT	Excavator -	. e	Truck - CAT	Trailer Flatbed	tonne) tonne) Helicopter	ii o	Drum crusher	Power	Welding	Crusher	Note / Source
C. 1.00 Blank = No task to be performed		1	\$ -	\$ -	\$	- \$	-																	
Hazardous waste									•					*					,		*			
C.1.01 Collect hazardous chemical waste and place in suitable containers	m ³	0.17	\$ 1,947.00	\$ -	\$ 1,45	53.20 \$ 49	93.80 3					1			1									Includes all chemicals on site / jm_Estimate
Decomissioning																					1			
C.2.01 Decomission and remove all heating fuel tanks and place into lined facility	each	4.00	\$ 66.89				20.58 2					1			1									Disconnect and remove all fuel drums and disconnect all Tidy Tanks from all structures
C.2.02 Decomission potable water supply	each	0.25	\$ 1,166.24				35.00 1	1		1		0.25		0.25										Disconnect all electrical and plumbing (intake and distribution)
C.2.03 Decomission waste incinerator	each	0.17	\$ 1,083.75				23.45 1		1			0.25			0.25									Disconnect and remove fuel storage
C.2.04 Decommission Main Camp Facility electricity C.2.05 Decommission Propage tanks (Kitchen)	each each	0.25 1.00	\$ 568.88 \$ 56.96		-	68.88 \$ 66.96 \$	- 1	1																De-energise main electrical board, disconnect auxiliary power (if exists) source - SRK estimate
Decontamination	eacn	1.00	\$ 56.96	э -	\$ 5	ю.96 ф	- 1																	Source - SRA estimate
C.3.01 Drain and wash heating fuel tanks (living quarters)	each	12.00	\$ 10.41	۹ .	s	9.49 \$	0.92 2		1					T					1	_	1 1			Drain fuel and tripple-rinse drum (collect water for treatment)
C.3.02 Drain and power-wash heating fuel tanks (Tidy Tanks)	each	6.00	\$ 20.82				1.83 2														1	_		Drain fuel from tanks and wash exterior with hot water (collect water for treatment)
C.3.03 Supply and install oil/water separator	each	0.50	\$ 255.34		50 \$ 22		- 2														'			Install valve on empty 55 Gal. drum
C.3.04 Operate oil/water separator	each	4.00	\$ 45.47				2.75 3														1			Collect skimmed oil from seperator and place in suitable container - 15 minutes per 55 gal. drum
Demolition	00011		÷ 10.47		1,4				1			1		1					1		· ·			2 to minutes per 50 gai. drain
C.4.01 Crush empty fuel drums	each	20.00	\$ 15.16	s -	\$	9.26 \$	5.90 2					1			1				1	1		1		
C.4.02 Cut Tank Farm geomembrane to manageable size	sq. m	80.00	\$ 2.14			2.14 \$	- 3																	source - SRK estimate
C.4.03 Dismantle potable water supply	each	0.08	\$ 3,995.40		\$ 3,50		93.80 3			1		0.5			0.5									source - SRK estimate
C.4.04 Dismantle incinerator	each	0.08	\$ 1,430.14		\$ 1,36		33.10 2														1	1		source - SRK estimate
C.4.05 Demolish office buildings/ shop structures/ living quarters (by mechanical equipment)	m ³	53.00	\$ 10.61	\$ -	\$		4.69 3					2	1		1									Demolish empty wood structures (offices, shacks, etc.)/ source - ECHOS
C.4.06 Collect reusable items from offices/shops/main camp	m ³	2.00	\$ 113.92	\$ -	\$ 11	13.92 \$	- 4																	
C.4.07 Dismantle communication equipment	each	0.50	\$ 313.10			3.10 \$	- 2																	
C.4.08 Cut off top of drill casings	each	3.00	\$ 20.74				1.75 1															1		
C.4.09 Demolish office buildings/ shop structures/ living quarters (by manual labor)	m ²	2.63	\$ 129.44				25.38 3		1			0.25		0.25	0.25									
C.4.10 Demolish office buildings/ shop structures/ living quarters (mechanised)	m ³	52.00	\$ 8.70	\$ -	\$	3.56 \$	5.14 2					1		1	1									
Material Relocations																								
C.5.01 Clean up debris from site	m ²	2529.00	\$ 0.13				0.03 3					1			1									source - SRK estimate
C.5.02 Load demolition debris/solid waste in containers	m ³	48.00	\$ 8.16				5.18					2	1		1									source - SRK calculated from first principles
C.5.03 Load solid waste in 55 Gal drums	m ³	0.25	\$ 341.76				- 1.5																	source - RSMeans
C.5.04 Load drums/tanks in container	each	15.00	\$ 14.04				5.49 1					1			1									
C.5.05 Load large above ground storage tank on skid	each	0.50	\$ 854.40				70.00 3					1		1										
C.5.06 Unload debris from containers C.5.07 Manually unload seacan container	m ³	132.80	\$ 3.72 \$ 28.48			1.07 \$	2.65					2	1	1										
C.5.08 Haul waste to Doris Camp in 20 ft container (33.2 m3/container)	m ³	4.00 88.76	\$ 28.48				1.88					1	1											Productivity calculation shown on 'Relocation Unit Cost' Worksheet
C.5.09 Haul waste to Bohs Camp in 20 it container (33.2 m3/container) C.5.09 Haul waste to Roberts Bay jetty in 20 ft container (33.2 m3/container)	m" m ³	58.48	\$ 2.62			-	2.85					1	1											Productivity calculation shown on 'Relocation Unit Cost' Worksheet
C.5.10 Load, haul, dump, place: 2 trucks with <1.0km haul distance	m ³	75.00	\$ 12.04				8.39					2 2	1	1		2								Productivity calculation shown on Relocation Onlic Cost Worksheet
C.5.10 Consolidate core boxes	hr	1.00	\$ 12.04				32.30 1					2 2	'	- '	1	2						_		Ship large propane tanks and envirotanks 1/skid / source - calculated from first principles
C.5.12 Load Seacan containers onto barges for off-site shipping	each	1.00	φ 210.36	9 -	Φ 12	υ.20 φ	52.30 I								,									Ship large proparte tarks and envirolariks 1/skid / source - calculated from hist principles
C.5.13 Decomission reusable structures	each	1.00	\$ 99.59	S -	S 9	99.59 \$	- 1	0.5		 												+ +		
C.5.14 Load reusable structures on skids for hauling	each	0.50	\$ 740.48				70.00 2					1		1								+ + +		source - SRK estimate
C.5.15 Unload reusable structures from skids	each	0.50	\$ 740.48			0.48 \$ 37						1	1	1					1		1	1		
C.5.16 Prepare structures for mobilization	m ²	6.75	\$ 20.58	-			- 2		1			0.25							1		1	1		source - SRK estimate
C.5.17 Load/unload containers onto lowbed	***						- 1	-	1										1		1	1		200.00
C.5.18 Load soils into megabags	m ³	4.00	\$ 65.75	\$ -	\$ 4	14.93 \$ 2	20.81 2					1		0.45										
C.5.19 Unload soils from megabags	m ³	10.00	\$ 31.33				18.50 1					1		1							1			
Earth works						,												,		•				
C.6.01 Drill and blast	m ³	100.00	\$ 27.90				3.52 1.5				0.5	2			1				1					source - ECHOS
C.6.02 Regrade surface - rough grading, D7	m ²	100.00	\$ 2.38	\$ -	\$	0.71 \$	1.67					1	1											source - ECHOS
C.6.03 Backfill depressions	m ³	20.00	\$ 7.68				4.12					1			1									source - ECHOS
C.6.04 Install soil stabilization measures (straw/coconut matting)	m2	269.00	\$ 3.48				0.69 3.5					1		1										source - ECHOS
C.6.05 Crusher: crush quarry rock	m ³	125.00	\$ 11.94				9.77 1					3	1	1	1								1	source - SRKjm estimate
C.6.06 Expose and remove tank farm liner	m ²	90.00	\$ 3.48				2.06 1					1		1									-	source - SRK estimate
C.6.07 Trackpack using loaded rock truck	m ²	100.00	\$ 2.05			0.00	1.39					1				1							-	
C.6.08 Delineation of low-lying areas	day	0.13	\$ 3,815.68			15.68 \$ 2,10					1							0.125				\perp		1 day to stake low-lying areas in the field, material allowance included for stakes
C.6.09 Install HDPE Liner	m ²	175.00	\$ 31.70				1.06 4					1		1								1		
C.6.10 Revegetate (seeding&fertilising by hand; high application rate)	m ²	320.00	\$ 0.77			0.53 \$	- 3															\perp		
C.6.11 Backfill drill holes with bentonite chips	lm	100.00	\$ 19.09	\$ 17.9	5 \$	1.14 \$	- 2																	
Equipment relocation		T				= a a c										-			_					
C.7.01 Dozer relocation	km	9.9	\$ 24.02				16.82					1	1									+		
C.7.02 Excavator relocation	km	9.9	\$ 25.89				18.69		1			1	1	1					-	-	1	1		
C.7.03 Loader relocation	km	15	\$ 10.24	\$ -	\$	4.75 \$	5.49		1			1		1	1				1	1		1 1		

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Table B12. Relocation Unit Cost Calculations for Patch Lake

Unit rate of hauling bulk materials from	Patch	Lake on v	winter road	
By Skid - SnowCAT (equivalent to D7)				Note: Cost of winter road not included
Equipment Cost	\$	166.50	per hr	Includes fuel
Labour Cost	\$		per hr	
Average speed	\$		km/hr	Skids assumed as being available on site
Hauling capacity	\$		skids	One container per skid
Cargo capacity	\$	33.20		Standard 20 ft container
Space utilization ratio	\$	0.70		
Load	\$	23.24	m ³	CargoCapacity x # of Containers x Space Utilization Ratio
Cost	\$		per km*m ³	Cost Per Hour ÷ Avg Speed ÷ Load
Cost per skid	\$		per km	Cos tPer Hour ÷ Avg Speed ÷ # of Skids
Unit rate of hauling bulk materials from				and
By Truck - CAT 735	later	Lake Oil /	- II Weather Re	
Load	\$	15.00	m ³	
Cost	\$	138.70		
Average speed	\$	50.00		
Cost	\$		per km*m ³	
		0.10	per km*m*	
Fleet productivity (100 %)	\$		m ³ per hr	
Hauling distance	\$	8.35	km	Patch Lake to Doris Quarry 2
# of trucks	\$	3.00		
Cycle time	\$		minutes	Patch to Doris and back
Real productivity			m ³ per hr	Demolition debris
Unit rate of hauling demolition waste in			n Patch to Dori	is Camp on All Weather Road
Tractor trailer with Lowboy, 2x20 ft seacar				
Cost	\$	71.78		
Average speed			km/hr	
Hauling distance		8.35		
Hauling capacity			containers	
Cargo capacity		33.2	m³	
Space utilization ratio		0.7		
Load		46.48		
Cost	\$		per m ³	
Productivity		105.76	m ³ per hr	
Return trip time		26.37	minutes	
Unit rate of hauling demolition waste in	conta	ainers fron	n Patch to Rob	perts Bay on All Weather Road
Tractor trailer with Lowboy, 2x20 ft seacar	ns per			
Cost	\$	71.78	per hr	
Average speed		38	km/hr	
Hauling distance		13.5	km	
Hauling capacity			containers	
Cargo capacity		33.2	m ³	
Space utilization ratio		0.7		
Load		46.48	m ³	
Cost	\$		per m ³	
Productivity	+		m ³ per hr	
Return trip time	+		minutes	
Iverani nih nine		42.03	minutes	

Table B13. Relocation Unit Cost Calculations for Windy Camp

Unit rate of hauling bulk materials from Windy on A	II We	ather Road		
By Truck - CAT 735	***	ather Roat		
Load	1	15	m ³	
Cost	\$	167.60	per hr	
Average speed	Ф		km/hr	
	¢			
Cost	\$		per km*m ³	
Fleet productivity (100 %)			m ³ per hr	
Hauling distance		9.00	km	Patch Lake to Doris Quarry 2
#of trucks		3.00		
Cycle time			minutes	Patch to Doris and back
Real productivity		100.00	m ³ per hr	Demolition debris
Unit rate of hauling demolition waste in containers	from	Windy to I	Ooris Camp on	All Weather Road
Tractor trailer with Lowboy, 2x20 ft seacans per trip				
Cost	\$	71.78		
Average speed			km/hr	
Hauling distance		9.95		
Hauling capacity			containers	
Cargo capacity		33.2	m³	
Space utilization ratio		0.7		
Load		46.48	m ³	
Cost	\$	2.473	per m ³	
Productivity			m ³ per hr	
Return trip time			minutes	
Unit rate of hauling demolition waste in containers	from	Windy to F	Roberts Bay or	All Weather Road
Tractor trailer with Lowboy, 2x20 ft seacans per trip				
Cost	\$	71.78	per hr	
Average speed	Ť		km/hr	
Hauling distance		15.1		
Hauling capacity			containers	
Cargo capacity		33.2		
Space utilization ratio		0.7		
Load		46.48	m ³	
Cost	\$	1.629		
	Ф			
Productivity			m ³ per hr	
Return trip time		47.68	minutes	
By Skid - SnowCAT (equivalent to D7)				(Only if Winter Road option were still in play)
Cost	\$	159.90		
Average speed			km/hr	Sleds assumed as being available on site
Hauling capacity			skids	One container per skid
Cargo capacity		33.2	m ³	Standard 20 ft container
Space utilization ratio		0.7		
Load		46.48	m ³	CargoCapacity x #ofContainers x SpaceUtilizationRatio
Cost	\$	0.38		CostPerHour÷AvgSpeed÷Load
Cost per skid	\$		per km	CostPerHour÷AvgSpeed÷#ofSkids
Unit rate for shipping from Roberts Bay to Hay Rive	er (in :	20 ft conta	iners)	
Demolition debris				
Volume of container	\perp	33.20	m^3	20 ft standard shipping containers
Volume of demolition waste	-		m^3	bulk volume of demolition debris
Container space utilization		0.75		SRKjm estimate
Cost of container per year	\$	1,300.00	each	personal communication with NTCL
				cost of inbound shipping from Tuktoyaktuk , per empty container / source - personal
cost of inbound shipping	\$	4,217.60	each	communication with NTCL
Cost of outbound shipping (demolition waste)	\$	551.61	m^3	\$ 0.3791 per pound minus 10% / source - personal communication with NTCL
Bulk density of demolition debris	-	733333333		bulk density of demolition waste (SRKjm estimate)
Unit rate for demolition waste	\$	676.25		unit rate of shipping demolition waste from Roberts Bay to Hay River
Hydrocarbon contaminated soils	Ψ	5, 0.25		a.m. rate of any pring demonstration waste from Property Day to Flay Niver
Volume of soils	+	1,613.95		
Container space utilization	1	0.5	%	SRKjm estimate
Bulk density of soils	+		t/m ³	SRKjm estimate
,	•			·
Cost of outbound shipping (soils)	\$	1,278.73		\$ 0.3791 per pound minus 10%
Unit rate for contaminated soils	\$	1,361.83	m ³	unit rate of shipping contaminated soils (sealed in 55 gallon drums) from Roberts Bay to Hay River

Table B15. Waste Volumes for Windy Camp

Volume Summary					Destination	
Area	Item (description)	# of units	Unit Loose volume (m³)	Total Loose volume (m³)	All Off Site	Off Site + Reuse
Tanks	Tidy tank	8	1.35		Off Site	Doris
	Oil barrels for heating (Crushed)	6	0.04		Hay River	Hay River
	Aviation fuel barrels (205L) (Crushed)	5	0.04		Hay River	Hay River
Hazardous Waste	Misc. chemical bottles	1	2.80	2.80	Hay River	Hay River
Tank Farm	LLDPE Liner	1	12.00		Hay River	Hay River
Reuseable Eq./Supplie		6	4.32		Off Site	Off Site
	Propane tanks - small	3	1.55	4.64	Off Site	Off Site
	Water treatment unit and holding tanks	4	8.30		Off Site	Doris
	Waste Incinerator	1	6.75		Off Site	Off Site
	Heating System components	1	1.00	1.00	Hay River	Doris
	Communication Equipment	1	1.00		Off Site	Off Site
		ol. reuseable	equipment sen	t to Doris/offsite	82.3	83.3
Camp Demolition	Tidy tank stands	8	1.50	12.00	Off Site	Doris
	Building - Fire suppression tank	1	23.99	23.99	Hay River	Hay River
	Tent (wood only)	32	9.4	299.52	Hay River	Hay River
	Tent (fabric)	32	2.70		Hay River	Hay River
	Cabin	4	26.15	104.60	Hay River	Doris
	Mess Hall1 (271 m2)	1	221.75	221.75	Hay River	Hay River
	Mess Hall2	1	255.87	255.87	Hay River	Hay River
	Driller's Dry (wood)	1	28.34	28.34	Hay River	Hay River
	Driller's Dry (fabric)	1	2.66	2.66	Hay River	Hay River
	Add-on to Driller's Dry	1	17.71	17.71	Hay River	Hay River
	Admin Building	1	108.02	108.02	Hay River	Doris
	Geology Office (not on dwg)	1	288.46	288.46	Hay River	Doris
	Core Logging Shack	1	135.34	135.34	Hay River	Doris
	Mechanical Shop	1	14.70	14.70	Hay River	Doris
	Helicopter shack-weatherhaven1	1	15.87		Hay River	Hay River
	Helicopter shack	1	140.34	140.34	Hay River	Hay River
	Helicopter shack-weatherhaven2	1	8.09	8.09	Hay River	Hay River
	Helicopter shack-weatherhaven3	1	12.69	12.69	Hay River	Hay River
	Helicopter pads (average dimension)	3	46.69	140.06	Hay River	Hay River
	Misc building near helipad2and3	1	51.54	51.54	Hay River	Hay River
	Trailers	3	26.54	79.62	Hay River	Doris
	Shipping containers	3	36.25	108.75	Hay River	Doris
	Misc small buildings near mech shop	1	33.52	33.52	Hay River	Hay River
	Water intake building	1	16.91	16.91	Hay River	Hay River
	Pallets	16	0.73	11.66	Hay River	Doris
	Other Misc. Debris allowance	1	30.00	30.00	Hay River	Hay River
		Total de	molition volume	m ³	2,236.4	1,385.3
			lume to landfill:	m ³	2,252.7	1,400.5
	Т		shipped off-site	m ³	94.3	38.3
			ed to Hay River	m ³	2,347.0	1,438.8
			to Doris Camp		_,	908.

Demolition Bulking Factors	
Tents - Empty	1.
Wood Structures - Empty	1.
Wood Structures - w/ Interior Wall Allowance	1.
Steel Structures - Empty	1.
Steel Structures - w/ Interior Wall Allowance	1.
Mechanical Equipment	1.
Liners	
Pipelines	

# of reusable structures:	26
Remobilized structures floor surface area:	891.558

Quantity Calculations

Area	Structure	Length (m)	Width/dia. (m)	Footprint Area (m2)	Avg. Height (m)	Wall thickness (m)	Floor thickness (m)	Roof Length (m)	Roof Thickness (m)	Wall Volume (m³)	Floor Volume (m³)	Roof Volume (m³)	Total Volume (m³)	Loose Volume (m³)	Comments
Tanks	Crushed 45 gal drums		0.6		0.15								0.042		
Tank Farm	Liner			800	0.005								4.0	12.0	
Reuseable Equipment	Propane tank large	5.5	1		1								4.3		
	Propane tank small	3.5	0.8		0.75								1.5		
	Incinerator	1.5	1.5	2.25	3								6.8	6.8	
Camp Demolition	Tindy Tank Stands	1	1	1	1.5								1.5		No bulking factor applied.
	Fire suppression tank building	6	4	24	2.4	0.15	0.3	4.5	0.15	7.2	7.2	4.05	18.5	24.0	
	Tent (wood only)	6	4	24			0.3				7.2		7.2	9.36	
	Tent (fabric)	6	7.5	45		0.01				2.7			2.7	2.7	length of arch = 7.5 m; no bulking factor
	Cabin	6	4.5	27	2.4	0.15	0.3	5.0	0.15	7.6	8.1	4.5	20.1		roof angle = 15 deg.
	Mess Hall 1	23	11.5	264.5	2.4	0.15	0.3	12.7	0.15	24.8	79.35	43.6	147.8		Includes interior wall allowance
	Mess Hall 2	25	12	300	2.8	0.15	0.3	13.2	0.15	31.1	90	49.5	170.6	255.9	Includes interior wall allowance
	Driller's Dry (wood)	16.2	4.5	72.7			0.3				21.8		21.8	28.3	length = 14 ribs, 0.85m apart; width = 4m
	Driller's Dry (fabric)	16.2			15	0.01				2.4			2.4	2.7	height 4 m, arc length 15 m
	Add-on to Driller's Dry	5	4	20.0	2.4	0.1	0.3	4.4	0.15	4.3	6	3.3	13.6	17.7	5x4 m footprint, 2.4 m high
	Admin Building	18	7	126.0	4.9	0.1	0.3	7.7	0.15	24.5	37.8	20.8	83.1	108.0	18x7 m footprint, avg height = 2.4m
	Geology office	27.7	6.7	185.6	4.9	0.15	0.3	7.4	0.15	50.3	111.4	30.6	192.3	288.5	2 story bldg.
	Core Logging Shack	27.7	5.1	142.4	2.4	0.15	0.3	5.7	0.15	24.0	42.7	23.5	90.2	135.3	
	Mechanical shop	20	7.2	144.0	5.5		0	11.3	0.05			11.3	11.3	14.7	
	Helicopter shack														
	Weatherhaven 1	7.3	5.3	38.7	2.5	0.01	0.3			2.8	11.6		14.4	15.9	
	Shack	8.2	8.9	72.5	5.5	0.15	0.3			28.0	43.5	22.0	93.6	140.3	
	Weatherhaven 2	5.9	3.5	20.5	2.5	0.01	0.3			1.2	6.2		7.4	8.1	
	Weatherhaven 3	6.9	4.5	31.3	2.5	0.01	0.3			2.2	9.4		11.5	12.7	
	Helipads														
	Helipad1	6.1	4.8	29.5	0.5								14.8	22.1	
	Helipad2	11	7.4	80.9	0.5								40.4	60.6	
	Helipad3	11.8	6.5	76.4	0.5								38.2	57.3	
	Water Treatment Unit and holding tanks	6.3	3.7	23.0	2.4	0.15	0.3	4.0	0.15	7.3	13.8	3.8	24.9	37.3	
	Misc building 1	6.9	4.5	31.3	3.0	0.15	0.3	5.0	0.15	10.5	18.8	5.2	34.4	51.5	
	Trailers	6	2.5	15.0	2.4	0.15	0.3	2.8	0.15	6.2	9.0	2.5	17.7	26.5	
	Water intake building	3	3	9.0	2.4	0.15	0.3	3.3	0.15	4.4	5.4	1.5	11.3	16.9	
	Pallets	1.8	1.8		0.15								0.5	0.7	
		Total de	molition volume	1605.4	m ³					•	•	To	otal Volume (m3)	1605.4	
	To	tal volume	shipped off-site	1605.4	m ³								, ,		=
	Total vo	lume shippe	ed to Hay River	1605.4	m ³										
			to Doris Camp	0.0]									

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Table B15 continued. Waste Volumes for Windy Camp

Manual Demolition Calculations

Area	Structure	Length (m)	Width/dia. (m)	Avg. Height (m)	Roof Length (m)	Wall Area (m²)	Floor Area (m²)	Roof Area (m²)	Wall Demolition (Hrs)	Floor Demolition (Hrs)	Roof Demolition (Hrs)	Total Demolition time (Hrs)
Work Productivity	Studs					12.1	23.2	23.2	(піз)	(піз)	(nis)	tille (HIS)
Factors for manual	Plywood					13.9	12.4	17.4				
Demolition (m2/hr)	Insulation					30.2	12.4	30.2				
	Tent Structure						92	00.2				
	Fire suppression tank building	6	4	2.4	4.5	48	24	27	9.0	3.0	3.609556976	15.6
	Tent (wood only)	6	4			0	24	0	0.0	3.0	0	3.0
Camp Demolition	Cabin	6	4.5	2.4	5.0	50.4	27	29.7	9.5	3.3	3.970512674	
·	Mess Hall 1	23	11.5	2.4	12.7	165.6	264.5	290.95	31.1	32.7	38.8963186	102.7
	Mess Hall 2	25	12	2.8	13.2	207.2	300	330	38.9	37.1	44.11680749	120.1
	Driller's Dry (wood)	16.2	4.5			0	72.675	0	0.0	9.0	0	9.0
	Add-on to Driller's Dry	5	4	2.4	4.4	43.2	20	22	8.1	2.5	2.941120499	13.5
	Admin Building	18	7	4.9	7.7	245	126	138.6	46.0	15.6	18.52905915	80.1
	Geology office	27.7	6.7	4.9	7.4	335.52384	185.59	204.149	63.0	23.0	27.29212767	113.2
	Core Logging Shack	27.7	5.1	2.4	5.7	160.154112	142.378	156.6158	30.1	17.6	20.93754272	
	Helicopter shack	8.2	8.9	5.5		186.976512	72.4535	0	35.1	9.0	0	44.1
	Helipad1	6.1	4.8	0.5		10.94	29.524	0	2.1	3.7	0	5.7
	Helipad2	11	7.4	0.5		18.35	80.85	0	3.4	10.0	0	13.4
	Helipad3	11.8	6.5	0.5		18.25	76.375	0	3.4	9.5	0	12.9
	Water Treatment Unit and holding tanks	6.3	3.7	2.4	4.0	48.475392	23.0368	25.34048	9.1	2.9	3.387700236	
	Misc building 1	6.9	4.5	3.0	5.0	69.67728	31.257	34.3827	13.1	3.9	4.596530172	
	Trailers	6	2.5	2.4	2.8	41.4528	15	16.5	7.8	1.9	2.205840375	
	Water intake building	3	3	2.4	3.3	29.2608	9	9.9	5.5	1.1	1.323504225	
	Tent (fabric)	6	7.5			0	45	0	0.0	5.6	0	5.6
	Driller's Dry (fabric)	16.2	15			0	242.25	0	0.0	30.0	0	30.0
	Weatherhaven 1	7.3	5.3			0	38.69	0	0.0	4.8	0	4.8
	Weatherhaven 2	5.9	3.5			0	20.51	0	0.0	2.5	0	2.5
	Weatherhaven 3	6.9	4.5			0	31.257	0	0.0	3.9	0	3.9
	Mechanical shop	20	7.2	5.5	11.3	0	144	0	0.0	17.8	0	17.8
	Total Footprint	1901.35										722.1
	Time to demolish	722.1	Hrs									man-hrs
	Overall productivity	2.6	m²/hr									

722.1 72.2142086 10.3163155 an-hrs man-days weeks

Manual and Mechanical Demolition Calculations

Area	Structure	Length (m)	Width/dia. (m)	Avg. Height (m)	Roof Length (m)	Wall Area (m²)	Floor Area	Roof Area	Building Volume	Wall Demolition	Floor Demolition	Roof Demolition	Total Demolition
		(,	()	()		10.1	,	, ,		(Hrs)	(Hrs)	(Hrs)	time (Hrs)
Work Productivity	Studs					12.1	23.2	23.2					
Factors for Manual	Plywood					13.9	12.4	17.4					
Demolition (m ² /hr)	Insulation					30.2		30.2					
, ,	Tent Structure						92						
Mechanical Demolition							52						
(m³/hr)													
	Fire suppression tank building	6	4	2.4	4.5				57.6	0.0	0.0	0	1.1
	Tent (wood only)	6	4	0.3					7.2	0.0	0.0	0	0.1
Camp Demolition	Cabin	6	4.5	2.4	5.0	50.4	27	29.7		9.5	3.3	3.970512674	16.8
	Mess Hall 1	23	11.5	2.4	12.7				634.8	0.0	0.0	0	12.2
	Mess Hall 2	25	12	2.8	13.2				840	0.0	0.0	0	16.2
	Driller's Dry (wood)	16.2	4.5	0.3					21.8025	0.0	0.0	0	0.4
	Add-on to Driller's Dry	5	4	2.4	4.4				48	0.0	0.0	0	0.9
	Admin Building	18	7	4.9	7.7				617.4	0.0	0.0	0	11.9
	Geology office	27.7	6.7	4.9	7.4				905.085312	0.0	0.0	0	17.4
	Core Logging Shack	27.7	5.1	2.4	5.7				347.174515	0.0	0.0	0	6.7
	Helicopter shack	8.2	8.9	5.5		186.976512	72.4535	0		35.1	9.0	0	44.1
	Helipad1	6.1	4.8	0.5		10.94	29.524	0		2.1	3.7	0	5.7
	Helipad2	11	7.4	0.5		18.35	80.85	0		3.4	10.0	0	13.4
	Helipad3	11.8	6.5	0.5		18.25	76.375	0		3.4	9.5	0	12.9
	Water Treatment Unit and holding tanks	6.3	3.7	2.4	4.0	48.475392	23.0368	25.34048		9.1	2.9	3.387700236	15.3
	Misc building 1	6.9	4.5	3.0	5.0	69.67728	31.257	34.3827		13.1	3.9	4.596530172	21.5
	Trailers	6	2.5	2.4	2.8	41.4528	15	16.5		7.8	1.9	2.205840375	11.8
	Water intake building	3	3	2.4	3.3	29.2608	9	9.9		5.5	1.1	1.323504225	7.9
	Tent (fabric)	6	7.5			0	45	0		0.0	5.6	0	5.6
	Driller's Dry (fabric)	16.2	15			0	242.25	0		0.0	30.0	0	30.0
	Weatherhaven 1	7.3	5.3			0	38.69	0		0.0	4.8	0	4.8
	Weatherhaven 2	5.9	3.5			0	20.51	0		0.0	2.5	0	2.5
	Weatherhaven 3	6.9	4.5			0	31.257	0		0.0	3.9	0	3.9
	Mechanical shop	20	7.2	5.5	11.3		144			0.0	17.8		17.8
	Total Footprint		m ²					Total	3479.06233				
	Time to demolish	214.1	Hrs		214.1	21.40793799	3.05827686			•			
	Overall productivity	4.1	m²/hr		man-hrs	man-days	weeks						
	Total Volume	3479.06	m ³										
	Time to demolish	66.9	Hrs		66.9	6.690504475	0.95578635						
	Overall productivity	52.0	m³/hr		man-hrs	man-days	weeks						
	Overall productivity	02.0	111 /111		marmo	man days	WOON						

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Table B16. Earthwork Quantities for Patch Lake

Location	Length (m)	Width (m)	Area (m ²)	Source
Tank Farm			2000	
Old Tank Farm			2500	
Main Tank Farm spoil pile			2545	ACAD-PL Closure Plan Fig. 4
Soil pile west of current tank farm			1085	
Road from Shop to Patch Lake			1592	Estimated disturbance from Autocad site photo
Winter trail west of facilities	\$ 2.00	935	1870	Estimated disturbance from Autocad site photo
Total Main site			6216	Estimated disturbance from Autocad site photo
Assumed Landfill area			100	Estimated based on demo volume from Patch lake

Table B17. Earthwork Quantities for Windy Camp

Reclamation Areas

ltam	Total Area (m²)	Area Regraded (m²)	Area Requiring Fill (m ²)	Coco- matting Area (m²)
Tank Farm	1,400	1400	0	350
Summer debris collection area	40,000			
Total camp area (shops+laydown+living)	24,955	1248	500	500
Area requiring fill	750		750	0
	67,105			
	Tank Farm Summer debris collection area Total camp area (shops+laydown+living)	ttam	Itam Total Area (m²) Regraded (m²) Tank Farm 1,400 1400 Summer debris collection area 40,000 4,000 Total camp area (shops+laydown+living) 24,955 1248 Area requiring fill 750 1248	Itam Total Area (m²) Regraded (m²) Requiring Fill Tank Farm 1,400 1400 0 Summer debris collection area 40,000

Bulking Factors
Soil/Rock Pad 1.2
Cover shrinkage factor 1.1

oover erminage racio					Area	(m ²)			In-situ Vol	lume (m³)	Loose Vo	lume (m³)]
Work Area	Item	Qnty	Length (m)	Width (m)	Base Case (all off-site)	Off-site +Reuse	Height/ Thicknes s (m)	Side Slope (x:1)	Base	Off-site +Reuse	Base Case	Off-site +Reuse	Source / Comments
Tank Farm	Excavate bedding				800	800	0.2		160	160			ACAD/aerial site photo
	Remove Liner				800	800							ACAD/aerial site photo
	Slope buttress		50	5	250	250	2		500	500	600	600	ACAD/aerial site photo
Landfill	Bedding (crushed rock) (0.3m on each sid	e of liner)			751	467	0.6		451	280	518	322	Area based on waste placed 3m high
	Liner				826	514							Includes 10% wastage
	Run-of-quarry cover (0.5m)				751	467	0.5		375	233	432	268	
Camp	Fill Low-lying areas				500	500	0.3		150	150	180	180	ACAD/aerial site photo
Winter road to Patch	Fill Low-lying areas				750	750	0.3		225	225	270	270	ACAD/aerial site photo

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Table B18. Volumes of HC Impacted Soils for Patch Lake

Area Designation (from EBA 2012)	Location	Area (m²)	Volume (m³)	Source	Remediation method	
P1A	North laydown area	38	76	EBA 2012 (Phase III Site Assessment)	Removal	
P1B	South-west of former drill shop	13	7	EBA 2012 (Phase III Site Assessment)	In-Situ Bioremediation	
P1C	Former drill shop footprint	120	18	EBA 2012 (Phase III Site Assessment)	Removal	
P3	Incinerator	29	87	EBA 2012 (Phase III Site Assessment)	Removal	
P5	Power generator		32	EBA 2012 (Phase III Site Assessment)	In-Situ Bioremediation	
Other	Various		22	EBA 2012 (Phase III Site Assessment)	Removal	
Tota	al	291	242			
	Total Removal Volume (Loose) to	Hay River	264			
	Total Bioremediatio	n Volume	39			
Total R	emoval Volume (Loose) to Doris O	VB Dump	0			
	Backfill volume	erequired	349	Assumed 1 m thick cover; loose volume based	on 1.2 shrinkage factor	
	Bulking Factors					
	Soil/Rock Pad					
	Cover shrinkage factor	1.2				

Table B19. Volumes of HC Impacted Soils for Windy Camp

		Volume	Estimate		
Area Designation (from EBA (2012))	Surface area (m²)	Assumed Thicknes of contaminated soil (m)	Equivalent IN-SITU Volume of contaminated soil (m³)	Remediation Method	
W1	85	0.5	42.5	Removal	
W2	124	2	248	Removal	
W3	23	1	23	Removal	
W4	44	2.5	110	Removal	
W5B	1	0.5	0.5	in situ Bioremediation	
W5D	2	2	4	in situ Bioremediation	
W5E	9	2	18	Removal	
W5G	4	2	8	in situ Bioremediation	
W5H	20	2	40	in situ Bioremediation	
W6	200	0.25	50	Removal	
W8	61	1	61	in situ Bioremediation	
Subtotal for Areas Identified by EBA (2012)	573		605		
Area under old fuel tanks					
(area is 38m x 21m. Assumed to be impacted by	800	1	800	Removal	
hydrocarbons)					
Total	1373		1405		
	Equivalent L	OOSE (Excavated) Volume	639		
	Equivaler	nt RECOMPACTED Volume	590		

Bulking factor	
Soil/Rock Pad	1.3
Cover shrinkage factor	1.2

			Notes
Total Removal Volume (Loose) to Hay River	1,613.95	m^3	
Total Bioremediation Volume	113.5	m^3	
Total Removal Volume (Loose) to Doris OVB Dump	65.0	m^3	
Backfill volume required	1,302.0	m ³	Assumed 1 m thick cover; loose volume based on 1.2 shrinkage factor