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SHEAR DIAMONDS LTD.

Jericho Mine Site

2010 ANNUAL REPORT

April 2011

Contents

List of Appendices.

INTRODUCTION

This Annual Report is prepared and submitted as per Part B, Section 2 of the Type A Water License NWBJER0410

On August 27th of 2010 Shear Diamonds (Nunavut) Corp. assumed ownership of the Jericho Mine site. The site remained on care and maintenance throughout the fall with the water activities limited to the discharge from the west cell of the PKCA into Stream C3 in order to maintain 1 meter of freeboard. Personnel were on site to begin preparation for site occupancy in the spring of 2011 and to complete a geotechnical survey of the site infrastructure. The main camp complex was not occupied at all and the individuals at site resided in the airstrip building area.

Water use was limited to that which was required for domestic purposes. Water was pumped into a holding tank at the airstrip building for this purpose. Grey water was pumped out of a holding tank and was discharged to the west cell of the PKCA. Pacto toilets were utilized and the waste generated was incinerated at site. Additionally domestic wastes were collected and disposed of at site in the incinerator.

As the mine site was not operational a number of items under Schedule B of the NWBJER0410 water license are not relevant at this time and Shear does not have any information to report. This annual report is considerably smaller than would be anticipated in an operational year. Those items with items relevant to this reporting period and circumstances have been addressed, irrelevant items have been left out.

MONTHLY AND ANNUAL QUANITITES OF FRESHWATER OBTAINED FROM CARAT LAKE (Schedule B, Item 1A)

Water was obtained from Carat Lake for domestic purposes during occupancy of the airstrip area in the fall on 2010. Water was pumped from the lake to holding tanks within the airstrip building.

September- 2.7m^3
October- 2.0m^3

A total 4.7m^3 of water was obtained from Carat Lake.

MONTHLY AND ANNUAL QUANITITIES OF RECYCLED WATER (Schedule B, Item 1B)

As the process plant and main camp facilities were not operated in 2010 under Shear Diamonds ownership, no recycled water was used.

MONTHLY AND ANNUAL QUANTITIES OF SOLIDS IN TONNES AND LIQUID FRACTIONS OF EACH WASTE STREAM DISCHARGED TO THE PROCESSED KIMBERLITE CONTAINMENT AREA (PKCA) (Schedule B, Item 1C)

Grey water was discharged to the PKCA in September and October of 2010. Total water discharged was 3.3 m^3.

MONTHLY AND ANNUAL QUANITITIES OF ANY DISCHARGES FROM THE PROCESSED KIMBERLITE CONTAINMENT AREA (Schedule B, Item 1D)

Discharges from the PKCA took place from September 16th through September 26th. The total water discharged from the PKCA into the receiving environment was 51,991m^3.

SUMMARY REPORT WHICH INCLUDES ALL DATA AND INFORMATION GENERATED UNDER THE MONITORING PROGRAM (Schedule B, ItemI)

Pre-discharge water samples as well as weekly samples were taken for analysis as per the water license Part G, Item 7. Results are attached in Appendix A

As per Part F, Item 4(e) and Part G, Item 2(g) a geotechnical inspection was completed on September 29 and 30th by EBA Engineering on behalf of Shear Diamonds. The resulting report and Shear Diamonds implementation plan to action the issues identified was submitted to the Nunavut Water Board on November 30th, 2010.

REVISIONS TO THE APPROVED CONTINGENCY PLAN (Schedule B, Item 1P)

A revised contingency management plan was submitted to the board on February 28, 2011 as part of the water license renewal package.

REVISIONS TO THE APPROVED CLOSURE AND RECLAMATION PLAN (Schedule B, Item 1S)

A revised Closure and Reclamation Plan was submitted to the board on February 28, 2011 as part of the water license renewal application.

SUMMARY OF ANY CLOSURE AND RECLAMATION WORK UNDERTAKEN AND AN OUTLINE OF ANY WORK ANTICIPATED FOR THE NEXT YEAR (Schedule B, Item 1T)

Shear has initiated a re-vegetation study with Dr. Anne Naeth of the University of Alberta and has contributed funding toward the first year of research. The study will add to the existing knowledge of tundra re-vegetation and also address site specific issues with re-vegetation at the Jericho Mine Site. In 2011 Shear will evaluate the volume and quality of substrate materials available at site. From this information a series of representative substrate samples will be collected and shipped to the University of Alberta for greenhouse trials. The proposed study is attached as Appendix B.

UPDATED ESTIMATE OF THE TOTAL CURRENT MINE RESTORATION LIABILITY BASED ON MINE RECLAMATION RESEARCH, MONITORING DURNG MINE CONSTRUCTION AND DEVELOPMENT AND ANY MODIFICATION TO THE MINE PLAN (Schedule B, Item 1U)

The updated restoration liability costing was only partially completed in 2010 due to the short period of snow-free time in which Shear Diamonds had control of the mine site. The reclamation liability was calculated on the Inuit Owned Lands but addressed physical infrastructure only. In 2011 Shear will address mine restoration liability on both the IOL and INAC lands as it relates to the work suggested in the proposed Closure and Reclamation Plan submitted to the board as part of the license renewal application.

SUMMARY REPORT DESCRIBING PUBLIC CONSULTATION AND PARTICIPATION WITH LOCAL ORGANIZATION AND THE RESIDENTS OF THE NEARBY COMMUNITIES, INCLUDING A SCHEDULE OF UPCOMING COMMUNITY EVENTS/INFORMATION SESSIONS (Schedule B, Item 1V)

Following the acquisition of the Jericho Diamond Mine and assets by Shear Minerals Ltd. (now Shear Diamonds Ltd.) letters (APPENDIX C) were sent to a distribution list involving the communities of Kugluktuk, Cambridge Bay, Kugaaruk, Repulse Bay, Gjoa Haven and Taloyoak informing them of the acquisition and of the 18 month plan. Since then, Shear Diamonds has made a presentation to the Kitikmeot Inuit Association Board of Directors in December 2010, with commitments to visit the Hamlets of Kugluktuk and Cambridge Bay for ongoing consultation and recruitment purposes. In addition a formal community meeting was held in Cambridge Bay in February, 2011.

SUMMARY OF ACTIONS TAKEN TO ADDRESS CONCERNS OR DEFICIENCIES LISTED IN THE INSPECTION REPORTS AND/OR COMPLIANCE REPORTS FILED BY AN INSPECTOR (Schedule B, Item 1W)

Shear has endeavoured to address all desktop compliance issues associated with the water license throughout the process of compiling a comprehensive compliance audit, the completion of a care and maintenance plan and the submittal of a water license renewal package. The timing of the acquisition is such that Shear has not had the opportunity to be on site and investigate any potential physical non-compliance. The items identified in past inspection reports issued to Tahera Diamond Corporation will be addressed under Shear's management of the site.

On August 23rd Environment Canada officers were at the mine site for an inspection. Environment Canada's letter summarizing the visit and Shear Diamonds response are attached as Appendix D.

Appendix A
Water Sampling Results

ALS		Sample ID	WQ2	WQ3	WQ1	WQ10	WQ13
		ALS ID	L923673-1	L923673-2	L923673-3	L923673-4	L923673-5
L923673		Date Sampled	8/23/2010	8/23/2010	8/23/2010	8/23/2010	8/23/2010
Analyte	Units	LOR	Water	Water	Water	Water	Water
Conductivity	uS/cm	2	169	61.9	13.7	71.6	87.5
Hardness (as CaCO3)	mg/L	0.5	60	27.2	5.32	27.3	32.5
pH	pH	0.1	7.58	7.23	6.53	7.12	7.16
Total Suspended Solids	mg/L	3	<3.0	<3.0	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L	10	99	42	<10	52	61
Turbidity	NTU	0.1	0.41	0.44	0.57	0.51	0.81
Acidity (as CaCO3)	mg/L	1	3.1	3	2.8	2.9	2.9
Alkalinity, Bicarbonate (as CaCO3)	mg/L	1	49.7	28.8	6.5	21	23.9
Alkalinity, Carbonate (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	1	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total (as CaCO3)	mg/L	1	49.7	28.8	6.5	21	23.9
Ammonia as N	mg/L	0.005	0.0153	0.0129	0.0063	0.0276	0.007
Chloride (Cl)	mg/L	0.5	6.47	1.55	<0.50	2.07	2.71
Nitrate (as N)	mg/L	0.005	2.1	0.167	0.0362	2.12	2.93
Nitrite (as N)	mg/L	0.001	0.0099	<0.0010	<0.0010	0.0063	0.0017
Ortho Phosphate as P	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total Dissolved Phosphate As P	mg/L	0.002	0.0028	0.0029	<0.0020	0.0021	0.0026
Total Phosphate as P	mg/L	0.002	0.0053	0.0042	0.0037	0.0042	0.0046
Sulfate (SO4)	mg/L	0.5	18.5	2.55	0.95	5.06	5.72
Total Inorganic Carbon	mg/L	0.5	11.7	5.92	0.89	3.98	4.67
Total Organic Carbon	mg/L	0.5	3.9	5.2	3.48	6.07	5.31
Fecal Coliforms	CFU/100mL	1	<1	-	-	-	-
Daphnia Magna - Pass/Fail		n/a	-	-	-	-	-
Trout Bioassay - Pass/Fail		n/a	-	-	-	-	-
Aluminum (Al)-Total	mg/L	0.001	0.0196	0.0387	0.0259	0.0344	0.0611
Antimony (Sb)-Total	mg/L	0.0001	0.00023	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L	0.0001	0.00042	0.00032	0.00016	0.0002	0.00022
Barium (Ba)-Total	mg/L	0.00005	0.0285	0.011	0.00187	0.00609	0.0108
Beryllium (Be)-Total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth (Bi)-Total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Boron (B)-Total	mg/L	0.01	0.029	0.012	<0.010	0.013	0.013
Cadmium (Cd)-Total	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Calcium (Ca)-Total	mg/L	0.05	13.4	5.88	1.34	6.34	8.31
Chromium (Cr)-Total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total	mg/L	0.0001	0.00024	0.0001	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L	0.0001	0.0021	0.00203	0.00176	0.00257	0.00428
Iron (Fe)-Total	mg/L	0.03	0.048	0.057	<0.030	0.039	0.043
Lead (Pb)-Total	mg/L	0.00005	0.000051	0.000152	0.000052	<0.000050	0.000259
Lithium (Li)-Total	mg/L	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Magnesium (Mg)-Total	mg/L	0.05	7.71	3.04	0.667	3.36	3.86
Manganese (Mn)-Total	mg/L	0.00005	0.0163	0.00933	0.00274	0.00369	0.00137
Mercury (Hg)-Total	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)-Total	mg/L	0.00005	0.00452	0.000496	<0.000050	0.000511	0.000365
Nickel (Ni)-Total	mg/L	0.0005	0.00176	0.00064	<0.00050	0.00119	0.00173
Potassium (K)-Total	mg/L	0.5	6.07	1.65	<0.50	0.85	1.04
Selenium (Se)-Total	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Silicon (Si)-Total	mg/L	0.05	0.407	1.52	0.328	1.09	1.47
Silver (Ag)-Total	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total	mg/L	0.5	8.39	2.78	0.56	2.8	3.17
Strontium (Sr)-Total	mg/L	0.0001	0.266	0.083	0.00636	0.025	0.03
Thallium (Tl)-Total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Titanium (Ti)-Total	mg/L	0.01	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)-Total	mg/L	0.00001	0.00356	0.000354	0.000201	0.00145	0.00213
Vanadium (V)-Total	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Total	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	0.0074
Aluminum (Al)-Dissolved	mg/L	0.001	0.0169	-	0.0209	0.0304	0.0474
Antimony (Sb)-Dissolved	mg/L	0.0001	0.00018	-	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L	0.0001	0.00041	-	0.00016	0.00019	0.0002
Barium (Ba)-Dissolved	mg/L	0.00005	0.027	-	0.00173	0.00572	0.00983
Beryllium (Be)-Dissolved	mg/L	0.0005	<0.00050	-	<0.00050	<0.00050	<0.00050
Bismuth (Bi)-Dissolved	mg/L	0.0005	<0.00050	-	<0.00050	<0.00050	<0.00050
Boron (B)-Dissolved	mg/L	0.01	0.022	-	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L	0.00005	<0.000050	-	<0.000050	<0.000050	<0.000050
Calcium (Ca)-Dissolved	mg/L	0.05	12.2	-	1.17	5.8	7.3
Chromium (Cr)-Dissolved	mg/L	0.0005	<0.00050	-	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L	0.0001	0.0001	-	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L	0.0001	0.00194	-	0.00151	0.00232	0.00322
Iron (Fe)-Dissolved	mg/L	0.03	0.04	-	<0.030	0.038	<0.030
Lead (Pb)-Dissolved	mg/L	0.00005	0.000076	-	<0.000050	<0.000050	0.000254
Lithium (Li)-Dissolved	mg/L	0.005	<0.0050	-	<0.0050	<0.0050	<0.0050
Magnesium (Mg)-Dissolved	mg/L	0.05	7.18	-	0.586	3.11	3.47
Manganese (Mn)-Dissolved	mg/L	0.00005	0.015	-	0.00239	0.00335	0.000786
Mercury (Hg)-Dissolved	mg/L	0.00005	<0.000050	-	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.00005	0.00398	-	<0.000050	0.000409	0.000292
Nickel (Ni)-Dissolved	mg/L	0.0005	0.00161	-	<0.00050	0.00108	0.00131
Potassium (K)-Dissolved	mg/L	0.5	5.68	-	<0.50	0.79	0.86
Selenium (Se)-Dissolved	mg/L	0.001	<0.0010	-	<0.0010	<0.0010	<0.0010
Silicon (Si)-Dissolved	mg/L	0.05	0.403	-	0.333	1.11	1.5
Silver (Ag)-Dissolved	mg/L	0.00001	<0.000010	-	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved	mg/L	0.5	7.78	-	0.51	2.6	2.69
Strontium (Sr)-Dissolved	mg/L	0.0001	0.239	-	0.00543	0.0221	0.0265
Thallium (Tl)-Dissolved	mg/L	0.0001	<0.00010	-	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L	0.0001	<0.00010	-	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L	0.01	<0.010	-	<0.010	<0.010	<0.010
Uranium (U)-Dissolved	mg/L	0.00001	0.00324	-	0.000178	0.00136	0.00191
Vanadium (V)-Dissolved	mg/L	0.001	<0.0010	-	<0.0010	<0.0010	<0.0010
Zinc (Zn)-Dissolved	mg/L	0.001	<0.0010	-	0.0015	<0.0010	<0.0010
Biochemical Oxygen Demand	mg/L	2	<2.0	-	-	-	-
Oil and Grease	mg/L	1	<1.0	-	-	-	-
Benzene	mg/L	0.0005	<0.00050	<0.00050	-	-	-
Ethylbenzene	mg/L	0.0005	<0.00050	<0.00050	-	-	-
Toluene	mg/L	0.0005	<0.00050	<0.00050	-	-	-
o-Xylene	mg/L	0.0005	<0.00050	<0.00050	-	-	-
m+p-Xylene	mg/L	0.0005	<0.00050	<0.00050	-	-	-
Xylenes	mg/L	0.00071	<0.00071	<0.00071	-	-	-
F1(C6-C10)	mg/L	0.1	0.13	<0.10	-	-	-
F1-BTEX	mg/L	0.1	0.13	<0.10	-	-	-
F2 (>C10-C16)	mg/L	0.25	<0.25	<0.25	-	-	-
F3 (C16-C34)	mg/L	0.25	<0.25	<0.25	-	-	-
F4 (C34-C50)	mg/L	0.25	<0.25	<0.25	-	-	-
Applied Guideline:	**Client Guideline - Discharge Criteria JER-WQ2**						
Color Key:	Within Guideline						

ALS		Sample ID	JER WQ2	JER WQ3	JER WQ4	JER WQ2	JER WQ4
		ALS ID	L931747-1	L931747-2	L931747-3	L9373547-1	L937347-2
L931747		Date Sampled	9/14/2010	9/14/2010	9/14/2010	9/29/2010	9/29/2010
Analyte	**Units**	**LOR**	Water	Water	Water	Water	Water
Hardness (as CaCO3)	mg/L	1.3	56.9	33.1	10.5	60.2	5.5
Total Suspended Solids	mg/L	3	<3.0	12	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L	5	120	57	16	101	17
Turbidity	NTU	0.1	0.47	1.32	0.43	0.48	0.38
Acidity (as CaCO3)	mg/L	5	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total (as CaCO3)	mg/L	5	50.5	35	10.6	48.4	<5.0
Ammonia-N	mg/L	0.005	0.0097	<0.0050	<0.0050	0.0228	<0.0050
Bicarbonate (HCO3)	mg/L	5	61.6	42.7	13	59	5.6
Carbonate (CO3)	mg/L	5	<5.0	<5.0	<5.0	<5.0	<5.0
Chloride (Cl)	mg/L	0.5	6.76	3.63	1.08	6.64	<0.50
Conductivity (EC)	uS/cm	0.2	182	97.4	30.2	189	14.4
Fluoride (F)	mg/L	0.05	0.103	0.06	<0.050	0.097	<0.050
Hardness (as CaCO3)	mg/L	n/a	56.8	33.1	10.5	60.2	5.5
Hydroxide (OH)	mg/L	5	<5.0	<5.0	<5.0	<5.0	<5.0
Ion Balance	%	n/a	91	Low EC	Low EC	99.3	Low EC
Nitrate and Nitrite as N	mg/L	0.071	1.98	0.404	<0.071	1.93	<0.071
Nitrate (as N)	mg/L	0.05	1.98	0.404	0.066	1.93	<0.050
Nitrite (as N)	mg/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
pH	pH	0.1	8.09	7.76	7.42	8	7.04
Ortho Phosphate as P	mg/L	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Orthophosphate (PO4-P)	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
TDS (Calculated)	mg/L	n/a	96.2	49.6	15.1	96.3	4.1
Sulfate (SO4)	mg/L	0.5	19.3	6.31	1.88	19.3	1.18
Total Inorganic Carbon	mg/L	1	9.6	7.5	2.4	-	
Total Organic Carbon	mg/L	1	4.3	5.9	4.6	3.5	3.4
Fecal Coliforms	CFU/100mL	1	<1	-	-	<1	-
Daphnia Magna - Pass/Fail		n/a	-	-	-	-	-
Trout Bioassay - Pass/Fail		n/a	See attached.	-	-	-	See attached.
Aluminum (Al)-Total	mg/L	0.02	<0.020	0.062	0.04	<0.020	0.028
Antimony (Sb)-Total	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Arsenic (As)-Total	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Barium (Ba)-Total	mg/L	0.0002	0.0273	0.0143	0.00419	0.0253	0.00165
Beryllium (Be)-Total	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth (Bi)-Total	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Boron (B)-Total	mg/L	0.02	0.023	<0.020	<0.020	<0.020	<0.020
Cadmium (Cd)-Total	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Calcium (Ca)-Total	mg/L	0.5	13.7	7.93	2.58	11.7	1.23
Chromium (Cr)-Total	mg/L	0.0008	<0.00080	<0.00080	<0.00080	<0.00080	<0.00080
Cobalt (Co)-Total	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Copper (Cu)-Total	mg/L	0.001	0.0016	0.002	<0.0010	0.0018	0.0011
Iron (Fe)-Total	mg/L	0.01	0.051	0.257	0.096	0.051	0.032
Lead (Pb)-Total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Magnesium (Mg)-Total	mg/L	0.1	8.1	4.44	1.46	7.1	0.68
Manganese (Mn)-Total	mg/L	0.002	0.0139	0.0104 *	0.0033	0.0136	0.0023
Mercury (Hg)-Total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Total	mg/L	0.0001	0.00422	0.00092	0.00015	0.0043	<0.00010
Nickel (Ni)-Total	mg/L	0.0002	0.00194	0.00104	0.00052	0.00198	0.00035
Potassium (K)-Total	mg/L	0.1	6.12	2.97	1.12	4.9	0.3
Selenium (Se)-Total	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Silver (Ag)-Total	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Sodium (Na)-Total	mg/L	1	8.3	4.5	1.7	7.1	<1.0

Strontium (Sr)-Total	mg/L	0.0002	0.232	0.0968	0.0193	0.227	0.00659
Thallium (Tl)-Total	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Titanium (Ti)-Total	mg/L	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (U)-Total	mg/L	0.0001	0.00384	0.00066	0.00021	0.00322	0.00018
Vanadium (V)-Total	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L	0.004	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Aluminum (Al)-Dissolved	mg/L	0.01	0.013	0.054	0.038	<0.010	0.016
Antimony (Sb)-Dissolved	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Arsenic (As)-Dissolved	mg/L	0.0004	0.00041	<0.00040	<0.00040	<0.00040	<0.00040
Barium (Ba)-Dissolved	mg/L	0.0001	0.0272	0.0142	0.00417	0.0249	0.00152
Beryllium (Be)-Dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth (Bi)-Dissolved	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L	0.002	0.0234	0.0096	0.0034	0.0242	<0.0020
Cadmium (Cd)-Dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Calcium (Ca)-Dissolved	mg/L	0.5	11.5 *	7.22 *	2.27 *	12.2 *	1.15 *
Chromium (Cr)-Dissolved	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Cobalt (Co)-Dissolved	mg/L	0.0001	0.0001	0.00015	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L	0.0006	0.00165	0.00181	0.00116	0.00161	0.00108
Iron (Fe)-Dissolved	mg/L	0.01	0.037	0.282	0.103	0.012	<0.010
Lead (Pb)-Dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Magnesium (Mg)-Dissolved	mg/L	0.1	6.81 *	3.67 *	1.17 *	7.23 *	0.63 *
Manganese (Mn)-Dissolved	mg/L	0.002	0.0133	0.0165	0.0033	0.008	<0.0020
Mercury (Hg)-Dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Dissolved	mg/L	0.0001	0.00425	0.00085	0.00016	0.00405	<0.00010
Nickel (Ni)-Dissolved	mg/L	0.0001	0.00177	0.001	0.00048	0.00181	0.00034
Potassium (K)-Dissolved	mg/L	0.1	5.20 *	2.20 *	0.63 *	5.34 *	0.20 *
Selenium (Se)-Dissolved	mg/L	0.0004	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Silver (Ag)-Dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Sodium (Na)-Dissolved	mg/L	0.5	7.44 *	3.77 *	1.42 *	7.92 *	0.91 *
Strontium (Sr)-Dissolved	mg/L	0.0001	0.228	0.0947	0.0174	0.23	0.00629
Thallium (Tl)-Dissolved	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Tin (Sn)-Dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Titanium (Ti)-Dissolved	mg/L	0.0003	<0.00030	0.00129	0.00046	<0.00030	<0.00030
Uranium (U)-Dissolved	mg/L	0.0001	0.00325	0.00055	0.00018	0.0034	0.00017
Vanadium (V)-Dissolved	mg/L	0.0001	0.00016	0.00019	0.00012	0.0001	<0.00010
Zinc (Zn)-Dissolved	mg/L	0.001	0.0022	0.0023	0.0022	<0.0010	0.001
Biochemical Oxygen Demand	mg/L	2	<2.0	-	-	<2.0	-
Oil and Grease	mg/L	1	<1.0	-	-	1.2	-
Benzene	mg/L	0.0005	<0.00050	-	-	<0.00050	-
Ethylbenzene	mg/L	0.0005	<0.00050	-	-	<0.00050	-
Toluene	mg/L	0.0005	<0.00050	-	-	<0.00050	-
o-Xylene	mg/L	0.0005	<0.00050	-	-	<0.00050	-
m+p-Xylene	mg/L	0.0005	<0.00050	-	-	<0.00050	-
Xylenes	mg/L	0.00071	<0.00071	-	-	<0.00071	-
F1(C6-C10)	mg/L	0.1	<0.10	-	-	<0.10	-
F1-BTEX	mg/L	0.1	<0.10	-	-	<0.10	-
F2 (>C10-C16)	mg/L	0.25	<0.25	-	-	<0.25	-
F3 (C16-C34)	mg/L	0.25	<0.25	-	-	<0.25	-
F4 (C34-C50)	mg/L	0.25	<0.25	-	-	<0.25	-
* = Result Qualified							
Applied Guideline:	**Client Guideline - Discharge Criteria JER-WQ2**						
Color Key:	Within Guideline						

ALS		Sample ID	JER WQ2	JER WQ3	JER WQ4
		ALS ID	L934416-1	L934416-2	L934416-3
L934416		Date Sampled	9/21/2010	9/21/2010	9/21/2010
Analyte	Units	LOR	Water	Water	Water
Hardness (as CaCO3)	mg/L	1.3	57.5	51.8	27.8
Total Suspended Solids	mg/L	3	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L	5	111	93	45
Turbidity	NTU	0.1	0.44	0.56	0.49
Acidity (as CaCO3)	mg/L	5	<5.0	<5.0	<5.0
Alkalinity, Total (as CaCO3)	mg/L	5	51	40.3	12.4
Ammonia-N	mg/L	0.005	0.0222	0.0106	0.0098
Bicarbonate (HCO3)	mg/L	5	62.3	49.2	15.2
Carbonate (CO3)	mg/L	5	<5.0	<5.0	<5.0
Chloride (Cl)	mg/L	0.5	6.51	5.7	2.33 *
Conductivity (EC)	uS/cm	0.2	188	157	56.3
Fluoride (F)	mg/L	0.05	0.079	0.064	<0.050 *
Hardness (as CaCO3)	mg/L	n/a	57.4	51.7	27.8
Hydroxide (OH)	mg/L	5	<5.0	<5.0	<5.0
Ion Balance	%	n/a	92.4	104	Low EC *
Nitrate and Nitrite as N	mg/L	0.071	1.84	1.43	0.372
Nitrate (as N)	mg/L	0.05	1.84	1.43	0.372 *
Nitrite (as N)	mg/L	0.05	<0.050	<0.050	<0.050 *
pH	pH	0.1	8.05	7.75	7.25
Ortho Phosphate as P	mg/L	0.005	<0.0050	<0.0050	<0.0050
Orthophosphate (PO4-P)	mg/L	0.001	<0.0010	<0.0010	<0.0010
TDS (Calculated)	mg/L	n/a	94	79.2	32.6
Sulfate (SO4)	mg/L	0.5	18.1	15	5.38 *
Total Organic Carbon	mg/L	1	3.4	3	3.3
Fecal Coliforms	CFU/100mL	1	<1	-	-
Aluminum (Al)-Total	mg/L	0.02	<0.020	<0.020	0.023
Antimony (Sb)-Total	mg/L	0.0004	<0.00040	<0.00040	<0.00040
Arsenic (As)-Total	mg/L	0.0004	0.00041	<0.00040	<0.00040
Barium (Ba)-Total	mg/L	0.0002	0.0279	0.0163	0.00911
Beryllium (Be)-Total	mg/L	0.001	<0.0010	<0.0010	<0.0010
Bismuth (Bi)-Total	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Boron (B)-Total	mg/L	0.02	<0.020	<0.020	<0.020
Cadmium (Cd)-Total	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Calcium (Ca)-Total	mg/L	0.5	11.1	9	4.89
Chromium (Cr)-Total	mg/L	0.0008	<0.00080	<0.00080	<0.00080
Cobalt (Co)-Total	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Copper (Cu)-Total	mg/L	0.001	0.0018	0.0014	0.0011
Iron (Fe)-Total	mg/L	0.01	0.057	0.041	0.039
Lead (Pb)-Total	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Magnesium (Mg)-Total	mg/L	0.1	6.79	5.34	3.24
Manganese (Mn)-Total	mg/L	0.002	0.0213	0.0021	<0.0020
Mercury (Hg)-Total	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Total	mg/L	0.0001	0.0038	0.00251	0.00052
Nickel (Ni)-Total	mg/L	0.0002	0.00162	0.00115	0.00058
Potassium (K)-Total	mg/L	0.1	5.01	3.65	2.25
Selenium (Se)-Total	mg/L	0.0004	<0.00040	<0.00040	<0.00040
Silver (Ag)-Total	mg/L	0.0004	<0.00040	<0.00040	<0.00040
Sodium (Na)-Total	mg/L	1	6.9	5.7	4.3
Strontium (Sr)-Total	mg/L	0.0002	0.238	0.156	0.0571
Thallium (Tl)-Total	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.0004	<0.00040	<0.00040	<0.00040
Titanium (Ti)-Total	mg/L	0.005	<0.0050	<0.0050	<0.0050
Uranium (U)-Total	mg/L	0.0001	0.00318	0.00068	<0.00010

Vanadium (V)-Total	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L	0.004	<0.0040	<0.0040	<0.0040
Aluminum (Al)-Dissolved	mg/L	0.01	<0.010	<0.010	0.022
Antimony (Sb)-Dissolved	mg/L	0.0004	<0.00040	<0.00040	<0.00040
Arsenic (As)-Dissolved	mg/L	0.0004	<0.00040	<0.00040	0.00066
Barium (Ba)-Dissolved	mg/L	0.0001	0.028	0.0165	0.00935
Beryllium (Be)-Dissolved	mg/L	0.0005	<0.00050	<0.00050	<0.00050
Bismuth (Bi)-Dissolved	mg/L	0.00005	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L	0.002	0.0195	0.0144	0.0061
Cadmium (Cd)-Dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Calcium (Ca)-Dissolved	mg/L	0.5	11.5 *	10.6 *	5.39 *
Chromium (Cr)-Dissolved	mg/L	0.0004	<0.00040	<0.00040	<0.00040
Cobalt (Co)-Dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L	0.0006	0.00166	0.00135	0.00109
Iron (Fe)-Dissolved	mg/L	0.01	0.016	0.014	0.025
Lead (Pb)-Dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Magnesium (Mg)-Dissolved	mg/L	0.1	6.96 *	6.13 *	3.48 *
Manganese (Mn)-Dissolved	mg/L	0.002	0.0128	<0.0020	<0.0020
Mercury (Hg)-Dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Molybdenum (Mo)-Dissolved	mg/L	0.0001	0.0039	0.00234	0.00057
Nickel (Ni)-Dissolved	mg/L	0.0001	0.00154	0.00085	0.00063
Potassium (K)-Dissolved	mg/L	0.1	4.83 *	4.36 *	2.35 *
Selenium (Se)-Dissolved	mg/L	0.0004	<0.00040	<0.00040	<0.00040
Silver (Ag)-Dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Sodium (Na)-Dissolved	mg/L	0.5	7.25 *	6.82 *	4.62 *
Strontium (Sr)-Dissolved	mg/L	0.0001	0.241	0.158	0.0592
Thallium (Tl)-Dissolved	mg/L	0.00005	<0.000050	<0.000050	<0.000050
Tin (Sn)-Dissolved	mg/L	0.0002	<0.00020	<0.00020	<0.00020
Titanium (Ti)-Dissolved	mg/L	0.0003	<0.00030	<0.00030	<0.00030
Uranium (U)-Dissolved	mg/L	0.0001	0.0031	0.00057	<0.00010
Vanadium (V)-Dissolved	mg/L	0.0001	<0.00010	<0.00010	<0.00010
Zinc (Zn)-Dissolved	mg/L	0.001	<0.0010	<0.0010	0.0012
Biochemical Oxygen Demand	mg/L	2	<2.0	-	-
Oil and Grease	mg/L	1	<1.0	-	-
Benzene	mg/L	0.0005	<0.00050	-	-
Ethylbenzene	mg/L	0.0005	<0.00050	-	-
Toluene	mg/L	0.0005	<0.00050	-	-
o-Xylene	mg/L	0.0005	<0.00050	-	-
m+p-Xylene	mg/L	0.0005	<0.00050	-	-
Xylenes	mg/L	0.00071	<0.00071	-	-
F1(C6-C10)	mg/L	0.1	<0.10	-	-
F1-BTEX	mg/L	0.1	<0.10	-	-
F2 (>C10-C16)	mg/L	0.25	<0.25	-	-
F3 (C16-C34)	mg/L	0.25	<0.25	-	-
F4 (C34-C50)	mg/L	0.25	<0.25	-	-
* = Result Qualified					
Applied Guideline:	**Client Guideline - Discharge Criteria JER-WQ2**				
Color Key:	Within Guideline				

ALS		Sample ID	JER WQ2	JER WQ4
10/19/2010		ALS ID	L937347-1	L937347-2
L937347		Date Sampled	9/29/2010	9/29/2010
Analyte	Units	LOR	Water	Water
Hardness (as CaCO3)	mg/L	1.3	60.2	5.5
Total Suspended Solids	mg/L	3	<3.0	<3.0
Total Dissolved Solids	mg/L	5	101	17
Turbidity	NTU	0.1	0.48	0.38
Acidity (as CaCO3)	mg/L	5	<5.0	<5.0
Alkalinity, Total (as CaCO3)	mg/L	5	48.4	<5.0
Ammonia-N	mg/L	0.005	0.0228	<0.0050
Bicarbonate (HCO3)	mg/L	5	59	5.6
Carbonate (CO3)	mg/L	5	<5.0	<5.0
Chloride (Cl)	mg/L	0.5	6.64	<0.50
Conductivity (EC)	uS/cm	0.2	189	14.4
Fluoride (F)	mg/L	0.05	0.097	<0.050
Hardness (as CaCO3)	mg/L	n/a	60.2	5.5
Hydroxide (OH)	mg/L	5	<5.0	<5.0
Ion Balance	%	n/a	99.3	Low EC
Nitrate and Nitrite as N	mg/L	0.071	1.93	<0.071
Nitrate (as N)	mg/L	0.05	1.93	<0.050
Nitrite (as N)	mg/L	0.05	<0.050	<0.050
pH	pH	0.1	8	7.04
Ortho Phosphate as P	mg/L	0.005	<0.0050	<0.0050
Orthophosphate (PO4-P)	mg/L	0.001	<0.0010	<0.0010
TDS (Calculated)	mg/L	n/a	96.3	4.1
Sulfate (SO4)	mg/L	0.5	19.3	1.18
Total Organic Carbon	mg/L	1	3.5	3.4
Fecal Coliforms	CFU/100mL	1	<1	-
Daphnia Magna - LC50		n/a	-	-
Trout Bioassay - Pass/Fail		n/a	-	See attached.
Aluminum (Al)-Total	mg/L	0.02	<0.020	0.028
Antimony (Sb)-Total	mg/L	0.0004	<0.00040	<0.00040
Arsenic (As)-Total	mg/L	0.0004	<0.00040	<0.00040
Barium (Ba)-Total	mg/L	0.0002	0.0253	0.00165
Beryllium (Be)-Total	mg/L	0.001	<0.0010	<0.0010
Bismuth (Bi)-Total	mg/L	0.0002	<0.00020	<0.00020
Boron (B)-Total	mg/L	0.02	<0.020	<0.020
Cadmium (Cd)-Total	mg/L	0.0002	<0.00020	<0.00020
Calcium (Ca)-Total	mg/L	0.5	11.7	1.23
Chromium (Cr)-Total	mg/L	0.0008	<0.00080	<0.00080
Cobalt (Co)-Total	mg/L	0.0002	<0.00020	<0.00020
Copper (Cu)-Total	mg/L	0.001	0.0018	0.0011
Iron (Fe)-Total	mg/L	0.01	0.051	0.032
Lead (Pb)-Total	mg/L	0.0001	<0.00010	<0.00010
Magnesium (Mg)-Total	mg/L	0.1	7.1	0.68
Manganese (Mn)-Total	mg/L	0.002	0.0136	0.0023
Mercury (Hg)-Total	mg/L	0.0001	<0.00010	<0.00010
Molybdenum (Mo)-Total	mg/L	0.0001	0.0043	<0.00010
Nickel (Ni)-Total	mg/L	0.0002	0.00198	0.00035
Potassium (K)-Total	mg/L	0.1	4.9	0.3
Selenium (Se)-Total	mg/L	0.0004	<0.00040	<0.00040
Silver (Ag)-Total	mg/L	0.0004	<0.00040	<0.00040
Sodium (Na)-Total	mg/L	1	7.1	<1.0
Strontium (Sr)-Total	mg/L	0.0002	0.227	0.00659
Thallium (Tl)-Total	mg/L	0.0001	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.0004	<0.00040	<0.00040

Titanium (Ti)-Total	mg/L	0.005	<0.0050	<0.0050
Uranium (U)-Total	mg/L	0.0001	0.00322	0.00018
Vanadium (V)-Total	mg/L	0.0005	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L	0.004	<0.0040	<0.0040
Aluminum (Al)-Dissolved	mg/L	0.01	<0.010	0.016
Antimony (Sb)-Dissolved	mg/L	0.0004	<0.00040	<0.00040
Arsenic (As)-Dissolved	mg/L	0.0004	<0.00040	<0.00040
Barium (Ba)-Dissolved	mg/L	0.0001	0.0249	0.00152
Beryllium (Be)-Dissolved	mg/L	0.0005	<0.00050	<0.00050
Bismuth (Bi)-Dissolved	mg/L	0.00005	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L	0.002	0.0242	<0.0020
Cadmium (Cd)-Dissolved	mg/L	0.0001	<0.00010	<0.00010
Calcium (Ca)-Dissolved	mg/L	0.5	12.2 *	1.15 *
Chromium (Cr)-Dissolved	mg/L	0.0004	<0.00040	<0.00040
Cobalt (Co)-Dissolved	mg/L	0.0001	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L	0.0006	0.00161	0.00108
Iron (Fe)-Dissolved	mg/L	0.01	0.012	<0.010
Lead (Pb)-Dissolved	mg/L	0.0001	<0.00010	<0.00010
Magnesium (Mg)-Dissolved	mg/L	0.1	7.23 *	0.63 *
Manganese (Mn)-Dissolved	mg/L	0.002	0.008	<0.0020
Mercury (Hg)-Dissolved	mg/L	0.0001	<0.00010	<0.00010
Molybdenum (Mo)-Dissolved	mg/L	0.0001	0.00405	<0.00010
Nickel (Ni)-Dissolved	mg/L	0.0001	0.00181	0.00034
Potassium (K)-Dissolved	mg/L	0.1	5.34 *	0.20 *
Selenium (Se)-Dissolved	mg/L	0.0004	<0.00040	<0.00040
Silver (Ag)-Dissolved	mg/L	0.0002	<0.00020	<0.00020
Sodium (Na)-Dissolved	mg/L	0.5	7.92 *	0.91 *
Strontium (Sr)-Dissolved	mg/L	0.0001	0.23	0.00629
Thallium (Tl)-Dissolved	mg/L	0.00005	<0.000050	<0.000050
Tin (Sn)-Dissolved	mg/L	0.0002	<0.00020	<0.00020
Titanium (Ti)-Dissolved	mg/L	0.0003	<0.00030	<0.00030
Uranium (U)-Dissolved	mg/L	0.0001	0.0034	0.00017
Vanadium (V)-Dissolved	mg/L	0.0001	0.0001	<0.00010
Zinc (Zn)-Dissolved	mg/L	0.001	<0.0010	0.001
Biochemical Oxygen Demand	mg/L	2	<2.0	-
Oil and Grease	mg/L	1	1.2	-
Benzene	mg/L	0.0005	<0.00050	-
Ethylbenzene	mg/L	0.0005	<0.00050	-
Toluene	mg/L	0.0005	<0.00050	-
o-Xylene	mg/L	0.0005	<0.00050	-
m+p-Xylene	mg/L	0.0005	<0.00050	-
Xylenes	mg/L	0.00071	<0.00071	-
F1(C6-C10)	mg/L	0.1	<0.10	-
F1-BTEX	mg/L	0.1	<0.10	-
F2 (>C10-C16)	mg/L	0.25	<0.25	-
F3 (C16-C34)	mg/L	0.25	<0.25	-
F4 (C34-C50)	mg/L	0.25	<0.25	-
* = Result Qualified				
Applied Guideline:	**Client Guideline - Discharge Criteria JER-WQ2**			
Color Key:	Within Guideline			

ACUTE TOXICITY BIOASSAY UPDATE

Client: Shear Minerals

Contact: Michelle Tanguay

Sample ID: WQ2 (Trout P/F)

Lab #: L923673-6

Date Sampled: Aug. 23/10 13:00

Email: michelletanguay@telus.net; jerichoenvironment@jericho.com

Fax #:

Phone #: (250) 362-9530

Trout	☒	24 Hour	☐	LC50	☐	Pass/Fail	☒
		96 Hour	☒				
No Mortality/Stress observed:			☒				
Mortality/Stress observed:			☐				

Details:

Daphnia	☐	24 Hour	☐	LC50	☐	Pass/Fail	☐
		48 Hour	☐				
No Mortality/Stress observed:			☐				
Mortality/Stress observed:			☐				

Details:

Name: David Piec **Date:** Aug. 31/10

ACUTE TOXICITY BIOASSAY UPDATE

Client: Shear Minerals

Contact: Michelle Tanguay

Sample ID: WQ2 (Daphnia P/F)

Lab #: L923673-7

Date Sampled: Aug. 23/10 13:00

Email: michelletanguay@telus.net; jerichoenvironment@jericho.com

Fax #:

Phone #: (250) 362-9530

Trout ☐ 24 Hour ☐ 96 Hour ☐ LC50 ☐ Pass/Fail ☐

No Mortality/Stress observed: ☐

Mortality/Stress observed: ☐

Details:

Daphnia ☒ 24 Hour ☐ 48 Hour ☒ LC50 ☐ Pass/Fail ☒

No Mortality/Stress observed: ☒

Mortality/Stress observed: ☐

Details:

Name: Jeremy Byrnes **Date:** 30-Aug-10

ACUTE TOXICITY BIOASSAY UPDATE

Client: Shear Minerals

Contact: Michelle Tanguay

Sample ID: Jer WQ2

Lab #: L931747

Date Sampled: Sept. 14/10

Email: michelletanguay@telus.net; jerichoenvironment@jericho.com

Fax #:

Phone #: (250) 362-9530

Trout ☐ 24 Hour ☐ 96 Hour ☐ LC50 ☐ Pass/Fail ☐

No Mortality/Stress observed: ☐

Mortality/Stress observed: ☐

Details:

Daphnia ☒ 24 Hour ☐ 48 Hour ☒ LC50 ☐ Pass/Fail ☒

No Mortality/Stress observed: ☒

Mortality/Stress observed: ☐

Details:

Name: David Piec **Date:** Sept. 19/10

ACUTE TOXICITY BIOASSAY UPDATE

Client**: Shear Minerals**

Contact**: Michelle Tanguay**

Sample ID: Jer WQ2

Lab #: L931747-1

Date Sampled: Sept. 14/10

Email: michelletanguay@telus.net; jerichoenvironment@jericho.com

Fax #:

Phone #: (250) 362-9530

Trout ☒ 24 Hour ☐ 96 Hour ☒ **LC50** ☐ **Pass/Fail** ☒

No Mortality/Stress observed: ☒

Mortality/Stress observed: ☐

Details:

Daphnia ☐ 24 Hour ☐ 48 Hour ☐ **LC50** ☐ **Pass/Fail** ☐

No Mortality/Stress observed: ☐

Mortality/Stress observed: ☐

Details:

Name: David Piec **Date:** Sept. 21/10

ACUTE TOXICITY BIOASSAY UPDATE

Client: Shear Minerals

Contact: Michelle Tanguay

Sample ID: JER WQ4

Lab #: L937347-2

Date Sampled: Sept. 29/10 11:45

Email: michelletanguay@telus.net; jerichoenvironment@jericho.com

Fax #:

Phone #: (250) 362-9530

Trout	☒	24 Hour	☐	LC50	☐	Pass/Fail	☒
		96 Hour	☒				
No Mortality/Stress observed:			☒				
Mortality/Stress observed:			☐				

Details:

Daphnia	☐	24 Hour	☐	LC50	☐	Pass/Fail	☐
		48 Hour	☐				
No Mortality/Stress observed:			☐				
Mortality/Stress observed:			☐				

Details:

Name: Jeremy Byrnes **Date:** 08-Oct-10

ACUTE TOXICITY BIOASSAY UPDATE

Client: Shear Minerals

Contact: Michelle Tanguay

Sample ID: JER WQ4

Lab #: L937347-3

Date Sampled: Sept. 29/10 11:45

Email: michelletanguay@telus.net; jerichoenvironment@jericho.com

Fax #:

Phone #: (250) 362-9530

Trout	☐	24 Hour	☐	LC50	☐	Pass/Fail	☐
		96 Hour	☐				

No Mortality/Stress observed: ☐

Mortality/Stress observed: ☐

Details:

Daphnia	☒	24 Hour	☐	LC50	☒	Pass/Fail	☐
		48 Hour	☒				

No Mortality/Stress observed: ☐

Mortality/Stress observed: ☒

Details: 85% mortality observed in 100% sample concentration.

Name: Lianne Steeves **Date:** Oct. 06/10

Appendix B
Revegetation Research Proposal

University of Alberta

RECLAMATION OF DISTURBED SITES AT JERICHO DIAMOND MINE, NUNAVUT

A RESEARCH PROPOSAL

Prepared by

Dr. M. Anne Naeth
Department of Renewable Resources
University of Alberta

Submitted to
Michelle Tanguay
Shear Minerals Ltd.

January 2011

1. BACKGROUND

Diamond mining in the Canadian north has been initiated at a small number of mines starting at Ekati in 1998, followed by Diavik, Jericho and Snap Lake. Numerous additional occurrences of kimberlite, many with economic potential, have been discovered. The pioneers in the Canadian diamond industry have the challenge to successfully reclaim mining disturbances to conditions resembling the premine environment and the opportunity to develop innovative, cost effective and environmentally sustainable methods. Successful reclamation involves re-establishment of soil processes and native plant communities. Sites to be reclaimed include gravel roads, gravel pads, waste rock and till stockpiles and the processed kimberlite containment facility. The greatest obstacles to overcome are the lack of soil water and water holding capacity, the lack of available organic matter following mining activities, and the lack of information on propagation techniques for arctic plant species.

2. PREVIOUS RESEARCH

2.1 Soil Reclamation

Soil reconstruction is important in creating a suitable environment for sustained plant community development in highly disturbed arctic environments. Soil can usually be constructed by amending existing substrate materials with organic materials. Waste materials from diamond mining have been used successfully as both substrates and amendments.

While most revegetation research has been conducted on kimberlite, other substrates including gravel fill, lake sediment, esker sand and waste rock have been tested. Kimberlite alone is an unsuitable substrate although Lyle (2001) found kimberlite amendment to gold mine tailings had no effect on plant growth. Native grasses and forbs established on kimberlite after one growing season but long term effects are unknown (Kidd and Max 2000). Kwiatkowski and Naeth (2007) used substrates including glacial till, processed kimberlite, 50% processed kimberlite with 50% till and 25% processed kimberlite with 75% till and gravel on a raised gravel bed formerly used for ammonium nitrate storage. Substrate properties, including texture, cation exchange capacity, nutrient availability and organic carbon were significantly improved by till and processed kimberlite combinations.

Gravel pads constructed during mining are generally compacted due to heavy equipment, forming a physical barrier to root penetration and reducing water holding capacity (Johnson

1987, Moffat and Bending 2000). Gravel pad thickness is important being inversely related to plant cover (Walker 1996, Streever 2001). Thick gravel pads are difficult to revegetate because the surface is low in water, nutrients and organic matter and the pad surface receives little ground water (Jorgenson and Joyce 1994, Bishop and Chapin 1989). Although gravel removal is becoming more common because it facilitates revegetation and allows reuse of gravel, removal can increase thaw depths and thermokarst (Streever 2001, MacKay 1970). To improve arid conditions, berms can capture drifting snow to increase water infiltration and organic amendments can improve water holding capacity and reduce evaporation (Jorgenson and Joyce 1994). Gravel pads often need scarification to alleviate compaction, however, this can increase soil temperatures, depth of thaw and initiate thermokarst (Chapin and Shaver 1981, Streever 2001).

Topsoil has been effective for establishing a vegetation cover, providing long term soil benefits by increasing nutrient availability, water storage capacity, microbial populations and providing seeds and propagules (Jorgenson and Joyce 1994, Bishop et al. 1999, Bishop et al. 2000, Kidd and Max 2000, ABR Inc. 2001, Kidd and Max 2001, Kwiatkowski and Naeth 2007). Archibold (1984) found the top 10 cm of arctic soil contained hundreds of seeds m^{-2}. Topsoil can increase microsites due to surface clumps, thus increasing germination and establishment (Forbes and Jefferies 1999). Unfortunately, shallow topsoil depths in the natural environment mean insufficient topsoil will be available for reclamation.

Reid and Naeth (2005a, 2005b) and Kwiatkowski and Naeth (2007) found structural and nutrient improving soil amendments were necessary to enhance plant growth. Reid and Naeth (2005a, 2005b) found sewage sludge best to increase nutrient provision and peat best for improving water and nutrient holding capacities; together sewage sludge and peat produced the greatest plant cover compared to nine other treatments tested in the field. While fertilizer has been a successful and commonly applied amendment to increase grass cover on gravel fill sites, Bishop et al. (2000) found that after six years, sewage sludge better enhanced nutrients and plant cover. The health threats posed by coliform bacteria in sewage are temporary as survival is quickly reduced with time for sewage applied in winter (Edmonds 1976, Estrada et al. 2006, Gibbs et al. 1997, Rufete et al. 2006). Cadmium, zinc, copper, lead, selenium, molybdenum, mercury, chromium, arsenic and nickel can be taken up by plants following land application of sewage sludge although if concentrations of metals are low in unamended soil, sewage sludge can be a useful source of trace elements to plants (Rate et al. 2003).

The arctic climate severely limits nutrient input rates (Johnson 1987). Permafrost reduces available soil depth, restricting areas of potential weathering and nutrient accumulation. Arctic high pressure zone dominance means precipitation and thus atmospheric nutrient inputs are low, resulting in low soil nitrogen and phosphorus (Crawford 1989). McKendrick (1997a) found phosphorus the most limiting soil nutrient in arctic environments, followed by potassium and nitrogen. Nutrients in processed kimberlite and glacial till are lower than undisturbed soil and insufficient for plant establishment and growth. The simplest way to increase soil nutrients and facilitate rapid vegetation establishment on disturbed soils is to apply fertilizers (ABR Inc. 2001, Johnson 1987). Fertilizer is not a long term solution (Bishop et al. 2001) because it is quickly taken up by plants and tied up in undecomposed litter and soil organic matter (Nadelhoffer et al. 1992). Dense grass stands grown with heavy fertilizer applications has slowed the return of natural tundra; when no grasses were seeded, a natural complex of tundra plants utilized the fertilized area efficiently (McKendrick 1997a). Fertilizers that provide no sulfur, low nitrogen and potassium and high phosphorus are more beneficial for establishing native plants on mine wastes such as glacial till and processed kimberlite (Bishop et al. 2001). Processed kimberlite and glacial till are already higher in sulfur than the predisturbed cryosol, therefore any additional sulfur may be detrimental to plant growth.

Provision of favourable microsites for plant germination can be critical. Coarse soil texture and lack of organic matter on xeric sites cause rapid water loss from the soil surface. Germination conditions are improved around larger stones and rocks which shade the soil surface and reduce evaporation (Cargill and Chapin 1987). Chambers (1995a, 1995b) found that on exposed soils, relationships between soil surface characteristics and seed morphological attributes often determined seed entrapment microsites, retention in the potential emergence zone and patterns of seedling establishment. Soil surface properties, including roughness, soil particle size and amount of organic matter affected seed entrapment in soils.

2.2 Revegetation

If a suitable soil or substrate exists on a disturbed site, naturally invading plants will inevitably become established (McKendrick 1997a). However, this is over a longer period of time than allowed for reclamation by most mining approvals and seeding with native grass cultivars and forbs can accelerate revegetation (Streever 2001). Establishment of a native plant cover is often slow, particularly if adjacent native seed sources are not present. Plant community succession can be a long process remaining in early stages decades after disturbance (Harper and

Kershaw 1996), often because of suboptimal conditions for plant establishment and growth (Smyth 1997). Recovery of these sites can resemble primary succession after a natural disturbance on glacial till (Cargill and Chapin 1987). Bishop and Chapin III (1989) found poor plant establishment and cover resulted from limited seed dispersal, lack of soil water for germination and slow growth due to low nutrients. Revegetation of arctic wetland communities has been more successful due to reliance on vegetative propagation rather than seeding (Forbes and Jefferies 1999). Tundra plant species are readily adapted to mesic environments, and disturbances often alter the hydrology of the landscape thus making it inhospitable for some species (Jorgenson and Joyce 1994).

In the arctic, establishing a dense plant cover is not necessary, as long as soil erosion risk is low. Revegetation success should rely on criteria that indicate a strong positive trend toward a functional tundra climax (McKendrick 1997a). Among the possible indicators are natural plant species seedling establishment, increasing numbers of plant species colonizing, strong vigor and reproduction (sexual and vegetative) of established plants, accumulating standing dead material in approximately three to four growing seasons, accumulating biological litter on the soil surface after three to four growing seasons and initiating a moss layer at the soil surface (McKendrick 1997a, 1997b).

Criteria to consider in selecting plant species for revegetation of disturbed tundra are growth form, drought resistance, mineral nutrition, reproduction and growth (Brown et al. 1978). Low growing plants with extensive root systems adapt better to arctic conditions than larger leafy species. This growth form reduces mortality caused by wind, ice abrasion and desiccation and results in abundant carbohydrate storage in roots. High radiation loads during the growing season, strong winds and course textured soils with low water holding capacities are common in arctic disturbances, therefore, plant colonization is restricted to drought resistant species. Vegetative reproduction is desirable because seed production is opportunistic and limited. Rhizomatous grasses and grass like plants provide a rapid, stable cover. Reclamation species must break dormancy near 0 °C, store large quantities of carbohydrates and complete their life cycle in about six weeks.

Native plant species adapted to adverse arctic growing conditions are advantageous for revegetation (Brown et al. 1978, Densmore 1992, Smyth 1997) and minimize potential ecological problems (Johnson 1987). Planting species well adapted to soil, climate, elevation and exposure of the disturbed sites has been recommended for immediate revegetation and to

establish a self perpetuating cover requiring little or no maintenance (Elliott et al. 1987). Sources of native seed and propagules are usually in short supply or completely unavailable, often requiring wild collection.

Species with demonstrated potential for mine substrate revegetation are *Dryas integrifolia*, *Arctophila fulva*, *Hedysarum mackenzii* and *Salix planifolia* on kimberlite (Kidd and Max 2000), *Deschampsia caespitosa*, *Deschampsia beringensis*, *Poa alpina*, *Poa glauca*, *Festuca rubra* and *Calamagrostis canadensis* on amended kimberlite (Reid and Naeth 2005a, 2005b) and gravel and sandy tills (Wright 1990), and *Beckmannia syzigachne*, *Arctagrostis latifolia* and *Artemisia tilesii* on gravel and sandy tills (Wright 1990). *Arctagrostis latifolia, Artemisia alaskana, Artemisia borealis, Artemisia tilesii, Astragalus alpinus, Betula glandulosa, Cochlearia officinalis, Deschampsia caespitosa, Epilobium latifolium, Equisetum arvense, Festuca rubra, Oxytropis campestris, Papaver lapponicum, Poa glauca, Sagina intermedia, Salix ovalifolia, Salix glauca, Salix planifolia, Saxifraga cernua, Saxifraga oppositifolia* and *Trisetum spicatum* established on abandoned gravel pads with no revegetation effort (Kershaw and Kershaw 1987, McKendrick 1987, McKendrick 1991, Walker 1996).

Native grass cultivars are extremely palatable to geese and caribou during the first three years of growth, and grazing can negatively affect stand development (Streever 2001). Grasses can reduce productivity of a site over time, and inhibit colonization of other native species (Densmore 1992). Legumes appear well adapted to gravelly soils with low soil water and little organic matter (ABR Inc. 2001). *Astragalus alpinus, Hedysarum alpinum, Hedysarum mackenzii, Oxytropis borealis, Oxytropis campestris, Oxytropis deflexa, Oxytropis viscida, Aster sibiricus, Artemisia arctica* and *Epilobium latifolium* have potential as early colonizers and are well adapted to dry gravelly soils (Forbes and Jefferies 1999). Kwiatkowski and Naeth (2007) successfully used mixes of native grasses and forbs, both cultivars and wild collected native seed, seeded in spring and fall. Kidd and Max (2001) found native cultivars performed best compared to wild collected seed and shrub cuttings following five years of monitoring.

3. RESEARCH OBJECTIVES

The goal of this reclamation research is to identify the most effective and economical methods for establishing a self-sustaining native vegetation cover suitable for wildlife on disturbed sites at the Jericho Diamond Mine, Nunavut. We propose two phases of research, greenhouse and field. This proposal outlines our approach for the intial greenhouse component. Specific

objectives are as follows.

- To determine which substrates are most effective for plant establishment and growth.
- To determine which soil amendments are most effective at enhancing substrate properties and plant establishment.
- To determine which groups and individual native plant species are able to establish and survive on a variety of substrates.

4. METHODS

4.1 Experimental Design and Treatments

A greenhouse study will be established at the University of Alberta in 2011. A complete randomized design will be used. Greenhouse research will facilitate narrowing the list of potential amendments and plant species prior to field research. Three substrates and five amendments will be investigated. Final selection of substrates and amendments will be determined based on availability and discussions with Shear Minerals Ltd. Substrates may include fine and coarse processed kimberlite, waste rock, till and gravel. Amendments may include salvaged topsoil, commercial peat, sewage sludge, compost and inorganic fertilizer. Amendment application rates will be based on physical and chemical deficiencies identified in the substrate materials and on availability. Controls will consist of each substrate unamended and a greenhouse soil.

Native plant cultivar seed will be obtained from local sources where possible and sown in each treatment. Wild collected seed may be considered if available for this greenhouse study and for field research. However, based on previous research, native cultivars will be an essential component of revegetation to accelerate establishment of soil and plant processes. Potential native plant species based on previous reclamation research in NWT include but are not limited to *Poa glauca*, *Poa alpina*, *Festuca saximontana*, *Arctagrostis latifolia*, *Calamagrostis canadensis*, *Puccinellia nuttalliana* and *Hedysarum mackenzii*. Single species will be sown per pot at a rate determined by initial germination tests. Each combination of substrate-amendment-species will be replicated five times.

The greenhouse experiment will run for 12 weeks. Five inch diameter pots will be used. The greenhouse temperature will be set at 21 ^{o}C during the day (16 h) and 15 ^{o}C at night (8 h) and pots will be watered to maintain field capacity.

4.2 Soil and Vegetation Measurements

Prior to starting the greenhouse experiment, three to five composite samples of each of the substrates and amendments will be submitted to a commercial laboratory and analyzed for pH, sodium adsorption ratio, electrical conductivity, total carbon, total nitrogen, major and minor nutrients, cation exchange capacity, particle size and major and trace metals. The rate of application of each amendment, by volume, will be based on this initial data. Once substrate-amendment treatments are mixed, three to five composite samples of each treatment will be submitted to the laboratory for the same analyses. These data will be used to correlate with plant response.

Germination will be monitored every 3 to 4 days for the first two weeks and then density and health will be measured every week until the end of the experiment. Health will be evaluated using a 5 point scale; a rating of 5 for healthy and vigorously growing plants, 4 for mostly healthy (could have brown tips on all or a few plants), 3 for 50% healthy and 50% dying or in poor health, 2 for mostly dying and 1 for dead. Flower production will be recorded. In the final week, plant height will be measured and above ground biomass will be clipped, oven dried and weighed. Roots in select treatments will be assessed visually.

4.3 Statistical Analyses

Appropriate statistical analyses such as analysis of variance (ANOVA) will be conducted to determine if differences in measured parameters exist between substrate and amendment treatments. Within treatments, performance of plant species will be compared.

5. DELIVERABLES

Shear Minerals Ltd will be provided with the following deliverables.

- A list of substrate and soil amendment combinations with potential for supporting native vegetation cover at Jericho Diamond Mine.
- A list of native plant species recommended for Jericho's revegetation program.
- A final report with recommendations for field research and for enhancement of Jericho's reclamation and revegetation program provided by January 31, 2012.
- Publication of results in peer reviewed scientific journals.
- Presentation of results at a scientific conference and meetings.

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Appendix C
Environment Canada Inspection Letter

&

Shear Diamonds Response

Environment Canada Environnement Canada

Tim Morton
Enforcement Officer
Environment Canada
Environmental Enforcement Division
5019 – 52 Street, P.O. Box 2310
Yellowknife, NT
X1A 2P7

RECEIVED
SEP 27 2010
Project Code:
Notes:
Approvals:
Posted:

Pamela Strand
President & CEO
Shear Minerals Ltd
Suite 220, 17010 – 103rd Ave
Edmonton, Alberta
T5S 1K7

Re: August 23rd 2010 Tahera mine inspection.

Dear Ms Strand

On August 23rd 2010 Environment Canada Enforcement Officers conducted an inspection of the Tahera (Jericho) mine site in Nunavut. The inspection's purpose was to inform the prospective owners at the time of the various Environment Canada acts and regulation that apply to the Tahera mine site.

These acts and regulations include the Canadian Environmental Protection Act 1999, Federal Halocarbons Regulation, Interprovincial Movement of Hazardous Waste Regulation, Environmental Emergency Regulations, National Pollutant Release Inventory, and section 36(3) of the Fisheries Act.

Since the Tahera mine site is located on both Inuit owned and federal lands, it is important to note that only section 36(3) of the Fisheries Act would apply to Inuit owned lands.

The inspection focused on the storage tank systems that are located on federal lands, including but not limited to storage tanks, above/underground piping, secondary containment, tank registration, and posting of the Environment Canada identification number.

During the inspection the Officers made the following observations, which are requirements under the *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*. The following list is meant to bring to your attention the items/issues that were observed during the short storage tank inspection, which may not contain all onsite issues.

Section 3(1): *The owner or operator of the storage tank system that leaks a liquid must, without delay, temporarily withdraw from service in accordance with section 43, either*

a) the leaking component, if it can be isolated from the system; or

b) in any other case, the system

The storage tank system that contained eight 500,000 litre tanks had a strong fuel odour and noticeable staining around the tanks. Refer to section 43 of the regulation.

Section 3(4): *If circumstances make it impossible to comply with subsection (1), (2) or (3), the owner or operator must, without delay, take necessary measures to minimize the immediate or long-term harmful effect on the environment and danger to human life or health until it becomes possible to comply with that subsection, and must, without delay, inform the Minister, in writing, of those circumstances and the measures that will be taken. For greater certainty, a petroleum product or allied petroleum product must not be transferred into the system until it becomes possible to comply with that subsection.*

The storage tank system that contained eight 500,000 litre tanks had a tank that was leaning to one direction, this tank must be dealt with before any allied petroleum product is transferred into it.

Section 11: *The owner or operator of a storage tank system must ensure compatibility between any petroleum products and allied petroleum products to be stored in that system and the material used in the construction of the system.*

The storage tank system that contained four 400BBL (63,595 litres) tanks labeled "contaminated fuel" must be checked to ensure that the tanks are compatible with the product stored inside.

Section 13: *The secondary containment area must not be used for storage purposes.*

This section includes water, debris, equipment, and other materials.

Section 14: *The owner or operator of a storage tank system that installs the system or any component of the system on or after the day on which these Regulations come into force must ensure that the system or the component conforms to the applicable requirements set out in the following provisions of the CCME Code of Practice.*

Any tanks that are currently onsite and are moved in the future or have major alterations are considered a new installation and must comply with sections 14, 33, and 34 of the regulation.

Section 17: *(1) The owner or operator of a storage tank system installed before the coming into force of these Regulations that has single-walled underground piping must test that piping using a piping precision leak detection test in accordance with section 24 within two years after the day on which these Regulations come into force and after that test they must*

(a) immediately
(i) use continuous external underground pipe leak monitoring,
(ii) use automatic tank gauging in accordance with section 18, or
(iii) use continuous in-tank leak detection in accordance with section 20; or
(b) annually perform a piping precision leak detection test in accordance with section 24.
(2) The continuous external underground pipe leak monitoring must
(a) be carried out using a sensor cable system designed for installation adjacent to the piping and within the same pipe trench;
(b) be capable of detecting a leak rate of at least 0.38 L/h within 96 hours after the onset of the leak at the lowest expected soil temperature at the site where the sensor cable system is installed;
(c) be capable of locating the leak with an accuracy of ± 1 m;
(d) be capable of continuously monitoring sensor cable system integrity; and
(e) have an alarm located at a place of work where it can be readily heard and seen.

The lone blue 400BBL (63,595 litres) tank that is located near the processing plant has two sets of underground piping. If the piping is single walled then section 17 of the regulation applies, if it is double walled then section 17 does not apply.

Section 23: *(1) The owner or operator of a storage tank system installed before the coming into force of these Regulations that has aboveground piping without secondary containment must visually inspect the walls of that piping within two years after the day on which these Regulations come into force to determine if the piping is leaking and after that inspection they must*
(a) immediately
(i) use continuous external aboveground pipe leak monitoring for that piping, or
(ii) implement a corrosion analysis program for that piping, developed and conducted by a corrosion expert, that includes at least an annual inspection;
(b) once each month, visually inspect that piping; or
(c) annually perform a piping precision leak detection test of that piping in accordance with section 24.
(2) The continuous external aboveground pipe leak monitoring must
(a) be carried out using a sensor cable system designed either for installation on the bottom of the piping or for placement on the ground underneath the piping;
(b) be capable of detecting a leak rate of at least 0.38 L/h within 96 hours after the onset of the leak at the lowest expected soil temperature at the site where the sensor cable system is installed;
(c) be capable of locating the leak with an accuracy of ± 1 m;
(d) be capable of continuously monitoring sensor cable system integrity; and
(e) have an alarm located at a place of work where it can be readily heard and seen.

All storage tank systems with aboveground piping must comply with section 23 of the regulation before the storage tank system becomes operational.

Section 28(4): *The owner or operator must display the identification number in a readily visible location on or near the storage tank system for which the number was issued.*

None of the storage tank systems that were inspected had an Environment Canada identification numbers visible. Instructions on how to obtain an Environment Canada identification number is contained within the compliance promotion material given to you onsite. It is important to note that in accordance with section 29(b)(i) no person can deliver a petroleum product into a tank without an Environment Canada identification number.

Section 30: *1) The owner or operator of a storage tank system must prepare an emergency plan taking into consideration the following factors:*
(a) the properties and characteristics of each petroleum product or allied petroleum product stored in each tank of the system and the maximum expected quantity of the petroleum product or allied petroleum product to be stored in the system at any time during any calendar year; and
(b) the characteristics of the place where the system is located and of the surrounding area that may increase the risk of harm to the environment or of danger to human life or health.
(2) The emergency plan must include
(a) a description of the factors considered under subsection (1);
(b) a description of the measures to be used to prevent, prepare for, respond to and recover from any emergency that may cause harm to the environment or danger to human life or health;
(c) a list of the individuals who are required to carry out the plan and a description of their roles and responsibilities;
(d) identification of the training required for each of the individuals listed under paragraph (c);
(e) a list of the emergency response equipment included as part of the plan, and the equipment's location; and
(f) the measures to be taken to notify members of the public who may be adversely affected by the harm or danger referred to in paragraph (b).
(3) The owner or operator of a storage tank system must ensure that the emergency plan is ready to be implemented
(a) in the case of a storage tank system that is installed before the coming into force of these Regulations, no later than two years after the day on which these Regulations come into force; and
(b) in any other case, before the day on which the first transfer of petroleum products or allied petroleum products into any tank of the storage tank system occurs.

The emergency plan must be up-to-date and readily accessible before any petroleum products are transferred into the system.

Section 43: *The owner or operator of a storage tank system that temporarily withdraws the system or any component of it from service must keep a record of the date on which they withdrew the system or component from service and must ensure that*

(a) if the system is equipped with a cathodic protection system, the cathodic protection system is maintained and operated during the withdrawal;
(b) if the system has either underground tanks, other than vertically-oriented underground tanks, or shop-fabricated aboveground tanks and the system or its component has been out of service for more than one year, those tanks are tested for leaks using a tank precision leak detection test in accordance with section 21 before the system or component is returned to service;
(c) if the system has field-erected aboveground tanks or vertically-oriented underground tanks and the system or its component has been out of service for more than one year, an inspection of the floor of those tanks using one of the following testing methods, namely, ultrasonic, magnetic particle, videographic or vacuum, is performed before the system or component is returned to service; and
(d) a label is affixed to the system's fill pipe stating that the system is temporarily out of service

Section 46: *(1) Subject to subsection (2) and section 31, the owner or operator of a storage tank system that is required to keep a record under these Regulations must keep the record at the owner's or operator's place of work nearest to the system for five years after the day on which that record was made.*
(2) The owner or operator of a storage tank system must keep the following records and documents until the system is removed:
(a) the record referred to in section 27
(i) in respect of an inspection performed under section 22, or
(ii) that includes the information referred to in paragraph 27(g); and
(b) the record referred to in subsection 33(2) and the documents referred to in section 34.

The documents pertaining to the install of the storage tank system must be kept onsite for the entire life of the storage tank system.

Please confirm that the four tanks marked contaminated fuel have sufficient secondary containment as soon as possible. Please send a follow-up on any outstanding issues that were mentioned above to myself Tim Morton (tim.morton@ec.gc.ca) or Patrick Kramers (patrick.kramers@ec.gc.ca).

Please refer to the regulation and compliance material for any general inquires. If you have any detailed questions regarding the regulation please contact *Gillian Brown,* Storage Tank Compliance Promotion Officer *at (780)951-8950.*

Thank You,

Tim Morton

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Edmonton, AB, Canada T5S 1K7
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www.shearminerals.com
TSXV: SRM

Tim Morton
Enforcement Officer
Environment Canada
Environmental Enforcement Division
5019 – 52 Street, P.O. Box 2310
Yellowknife, NT
X1A 2P7

November 4, 2010

RE: August 23rd 2010 Tahera mine inspection

Dear Mr.Morton,

Thank you for your recent letter outlining the findings of the August 23rd inspection of the Jericho mine site. We appreciate the information imparted to us by the Enforcement Officers who visited the site and the detailed specifics in the follow-up letter.

As you are likely aware, the Jericho property is a recent acquisition for Shear Minerals and we are looking forward to implementing improvements to both infrastructure and associated infrastructure management. To that end, Shear Minerals Ltd. has already begun to address the outstanding issues with the storage tanks at the Jericho mine site.

The containment berm that holds eight 500,000 litre tanks (EC-00015858) has an extensive spill history that adequately explains the strong fuel odour and the staining of substrate material within the berm. The large 500,000 litre tanks in this system are empty aside from residual diesel that is below the fill valves and are thus affectively isolated from the system. It is not our intention to utilize these tanks for storage until adequate measures have been taken to correct the containment berm issues of settling that are causing tank 6 and tank 12 to lean (1 to 1.5 degrees).

The 400BBL (63,595 litre) tanks labeled contaminated fuel have been inspected and two are empty aside from residual and the others contain waste oil and fuel. The storage tanks are compatible with the product. As addressed in your letter, currently at this location there are a number of items stored within the hazardous wastes containment area that holds the 400BBL tanks. This area will be re-organized in the spring of 2011. The miscellaneous materials within the bermed area will be removed and the water removed and treated.

The two 400BBL (63, 595 litre) tanks at the airstrip contain expired aviation fuel that will be removed from the tanks in the spring of 2011 and will be amended for use as a diesel equivalent.

We are in the process of searching past documents to assemble a records file to be kept onsite as well as a replicate file for our Edmonton offices. This will include records of any inspections and testing

associated with the storage and records of install and will meet the requirements of Section 46.

The underground piping on-site that is used for transfer of fuel to the generators is double-walled and thus Section 17 does not apply. The above ground piping associated with the fuel transfer to the vehicle maintenance area is single walled. It is not currently in use and Shear Minerals Ltd. will ensure compliance with Section 23 by implementation of a corrosion analysis program and piping precision leak test before this piping is operational in the future.

We have completed the process to register the tanks systems with the Federal Registry and the main storage tank system (EC-00015858) now has the Environment Canada identification number visible. The other storage tank systems at site will be identified with the registry number associated with them in the spring when we can ensure that application of the identification will be permanent.

Under section 30 Shear Minerals. Ltd was required to have an up-to-date emergency plan for each storage system in place by June 12, 2010. We are currently in the process of writing the spill and contingency plan for the site and the task of creating storage tank emergency plans will be done concurrently with our site wide plan and to the specifications detailed in section 30. We ask that you consider the timing of Shear Minerals acquisition of the Jericho site and provide us with some leniency with regards to the timeline.

I trust that this adequately addresses the outstanding issues noted on the August 23rd, 2010 mine inspection and your follow-up letter. If you have any further questions regarding our plans to bring the Jericho mine site's fuel storage facilities into compliance with the regulations please do not hesitate to contact me.

Sincerely,

Pamela Strand, P. Geol.
President
Shear Minerals Ltd.

CC: Michelle Tanguay
Shear Minerals
Environment Manager

Allison Rippin Armstrong
Consultant

Appendix D
Community Consultation Log

Community Consultation Log Shear Diamonds (Nunavut)

Acronyms:

MT	Michelle Tanguay	**JLG**	Julie Lassonde Grey
INAC	Indian and Northern Affairs Canada	**DL**	Denise Lockett
PS	Pam Strand	**ARA**	Allison Rippin Armstrong
NIRB	Nunavut Impact Review Board	**NWB**	Nunavut Water Board
KIA	Kivalliq Inuit Association	**GN**	Government of Nunavut
Kit IA	Kitikmeot Inuit Association	**NTI**	Nunavut Tunngavik Inc.
KC	Kitikmeot Corporation	**WCB**	Workers Compensation Board
GC	Government of Canada	**GM**	Greg Missall
NRC	Nunavut Resources Corporation		late updated:`Feb 28, 2011 14:30 PT

Date	Time	Group	Contact	Project	Details
19-Jul-10	8:39	Media	Terry Dobbin (Editor, Nunavut News North), Editor (Nunaqtsiaq News), Darrell Greer (Kivalliq News), Editor (News North)	Jericho	email to, from DL, July 19 2010 news release
19-Jul-10	8:57	Industry	Andrew Turner, Akikko Levinson, Angela Dearier, Andrea Maynes, Alex Buchan, Andre Douchane, Brent Jellicoe, Bruce Counts, John Todd, Barry McCallum, Mike Beauregard, Courtney Mitchell, Cheryl Wourms, Cathie Colstad, Valerie Ipkarnerk, Cedo Rankin Inlet, Harry Tootoo, chris Hands, David Clarke, Dawn Bringham, Erika Tamboline, Fred Mason, Gord MacKay, Gerry Pflueger, Karen Costello, Hugh Wilson, Jo Price, Jeremy Howe, Jennifer Pell, John Main, Jorgen Gronfeldt, John Witteman, John Kearney, Ken Armstrong, Kate Hearn, Larry Connell, Linda Ham, Mike Byrne, Magnus Hadlund, Patrick ONeill, Andrew Jeffrey, Peter Garvey, Robert Connelly, Robin Goad, Rob Carpenter, Rick Mazur, Sophie Taylor, Tim Byutler, Tom Hoefer	Jericho	e-mail to, from DL, July 19, 2010 news release
19-Jul-10	12:16 MT	INAC NU	Bernie macIssac	Jericho	e-mail to, from ARA on behalf of PS re: announcement

Jul-10	12:22 MT	NIRB	Stephanie Autut	Jericho	e-mail to, from ARA on behalf of PS re: announcement
Jul-10	12:21 MT	NWB	Dionne Filiatrault	Jericho	email to, from ARA on behalf of PS re: announcement
Jul-10	12:29	KIA	Luis Manzo	Jericho	e-mail to, from ARA on behalf of PS re: announcement
19-Jul-10	15:00	GN	Gordon MacKay	Jericho	e-mail to, from ARA on behalf of PS re: announcement
19-Jul-10	13:53 MT	GN	Gordon MacKay	Jericho	e-mail from, to ARA, thank you for announcement
19-Jul-10		Kit IA	Charlie Evalik, President	Jericho	telephone call to, from PS re: announcement
19-Jul-10		KC	Charlie Lyall, President	Jericho	telephone call to, from PS re: announcement. Left a message.
19-Jul-10		NTI	Carson Gilles, Director of Lands	Jericho	telephone call to, from PS re: announcement. Left a message.
19-Jul-10		NTI	Joe Eetoolook, 1st VP	Jericho	telephone call to, from PS re: annoucement. Left a message
20-Jul-10	12:35	NIRB	Stephanie Autut	Jericho	e-mail from, to ARA re: congratulations to PS
21-Jul-10	11:35 mt	Kit IA	Charlie Evalik, President	Jericho	e-mail to, from PS re: announcement
21-Jul-10	12:49	KC	Charlie Lyall, President	Jericho	e-mail to, from PS re: announcement
21-Jul-10	11:52:00 AM MT	NTI	Carson Gilles, Director of Lands	Jericho	e-mail to, from PS re: announcement
21-Jul-10	11:52:00 AM MT	NTI	Paul Kaludjak, President	Jericho	e-mail to, from PS re: announcement
21-Jul-10	11:56 MT	GN	Gordon MacKay	Jericho	e-mail to, from PS re: announcement, request pass news along to Minister Taptuna
21-Jul-10	12:06 MT	INAC NU	Bernie macIssac	Jericho	e-mail to, from PS re: announcement
21-Jul-10	12:08 MT	KIA	Luis Manzo	Jericho	e-mail to, from PS re: announcement
21-Jul-10	12:10 MT	Kit IA	Geoff Clarke	Jericho	e-mail to, from PS re: announcement
21-Jul-10	13:09 MT	KC	Charlie Lyall, President	Jericho	e-mail from, to PS re: media calling. Congratulations.
21-Jul-10	13:14 MT	KC	Charlie Lyall, President	Jericho	e-mail to, from PS re: thank you for congratulations
21-Jul-10	12:23 MT	WCB	Martin Van Rooy	Jericho	e-mail to, from PS re: annoucement
21-Jul-10	12:24 MT	GN	Keith Peterson, MLA Cambridge Bay	Jericho	e-mail to, from PS re: annoucement
21-Jul-10	12:27 MT	GC	Senator Dennis Patterson	Jericho	e-mail to, from PS re: announcement
21-Jul-10	12:32 MT	GC	Leona Agkukkaq, MP, Nunavut	Jericho	e-mail to, from PS re: announcement
21-Jul-10	12:34 MT	GN	Premier Eva Ariak	Jericho	e-mail to, from PS re: announcement
21-Jul-10	12:37 MT	WCB	Martin Van Rooy	Jericho	e-mail from, to PS re: congratulations
21-Jul-10	12:40 mt	WCB	Martin Van Rooy	Jericho	e-mail to, from PS re: àll indications are very positive`
21-Jul-10	13:34 MT	GC	Senator Dennis Patterson	Jericho	e-mail from, to PS re: Pamela. Thanks very much for this good news. I do remember meeting you and I wish you every success with this venture. Please let me know if I can assist in any way.
22-Jul-10	am	GC	Leona Agkukkaq, MP, Nunavut	Jericho	phone call to, from PS `very supportive`
22-Jul-10	18:11 MT	GN	Keith Peterson, MLA Cambridge Bay	Jericho	e-mail from, to PS re: congratulations
26-Jul-10	17:47 MT	Kit IA	Geoff Clarke	Jericho	e-mail from, to PS re: announcement and contact details. Ì updated KIA`s executive committee today regarding Shear`s potential acquisition of Jericho. I hoope that this results in good things for your company and the KIA. Once you close the financing and the transaction, our team will be avilable to meet. We are interested in hearing your future plans and also discuss the IIBA, the lease and the upcoming water license renewal.

28-Jul-10		GC	Senator Dennis Patterson	Jericho	Phone call to, from GM
29-Jul-10		GC	Senator Dennis Patterson	Jericho	Phone call to, from GM
30-Jul-10		GN	Premier Eva Ariak	Jericho	Phone call to, from GM
30-Jul-10	06:56 MT	Kit IA	Geoff Clarke	Jericho	e-mail to, from PS re: `Geoff. Thank you for your contact info and yes, small world to run into you and Sandy in Calgary. I have just completed a week of marketing for the financing and am positive we can complete the required funding. I appreciate the fact you briefed the Kit IA. Is there a recommended process to open the lines of communication as I would like to talk about several things before we close and knowing there will be many more once we close. Sincerely Pam`
03-Aug-10		GN	Keith Peterson, MLA Cambridge Bay	Jericho	Phone call to, from GM
03-Aug-10	10:50 MT	Kit IA	Douglas McNiven (lawyer)	Jericho	fax from, to PS re: purchase of assets of Tahera Diamond Corp and affect on Kit IA.
04-Aug-10		Kit IA	Charlie Evalik, President	Jericho	phone call to, from PS re: left a message
04-Aug-10		GN	Gordon MacKay	Jericho	phone call to, from PS re: left a message
04-Aug-10	15:48 mt	Kit IA	Charlie Evalik, President	Jericho	e-mail to from PS re: `Dear Charlie. I hope this email finds you well. I wanted to follow up on our conversation on July 19th as Shear Minerals Ltd is in the process of securing the required funding to complete the acquisition of the Jericho assets. We received a fax from Mr. McNiven yesterday and would like to see if we can schedule a conference call soemtime this week to discussÉ We look forward to hearing from you soon.
04-Aug-10	15:59	Kit IA	Charlie Evalik, President	Jericho	e-mail from, to PS re: I did receive your phone message earlier and had message John Donihee on the matter for a conference call. Will contact you once John Donihee confirms on your rquest. Not trying to be avoided.
04-Aug-10	17:26MT	Kit IA	Charlie Evalik, President	Jericho	e-mail to, from PS re: Charlie. Perfect, we will await your timing. Cheers. Pam
25-Aug-10		local comm.	Mayors Hamlets of Taloyoak, Cambridge Bay, Kugluktuk, Gjoa Haven, Kuugaruk	Jericho	Letter to, from PS re: we would like to inform you that Shear Minerals Ltd. is in the process of finalizing the Jericho Diamond Mine acquisdition. We are implementing a comprehensive eighteen month advanced exploration program with the goal of increasing the total diamond resource base. Once we finalize the program we plan to complete an economic assessment with a view to a return to production for Jericho.
04-Oct-10	08:56 MT	Kit IA	John Donihee, lawyer	Jericho	e-mail to, from PS re: Good morning. I hope this e-mail finds you well. I wanted to touch base on a couple of items - we did not hear from you about timing for a meeting with the Kit IA while they were in YK (I think for Sabina) Is Chaqrlie of the KIT IA Directors anywhere for meetings in October or early November where we may be able to get squeezed inÉ Denise is assisting Shear and we would really like to plan a casual meeting face to face. We do need to travel up to Cambridge for some other land and permitting issues, so if that would work let us know. Shear will be attending the Geoscience Forum in YK the week of Nov 15-19 all week.

05-Oct-10	08:34 MT	Kit IA	John Donihee, lawyer	Jericho	e-mail from, to PS re: `Pam, thank you for your e-mail. Sorry to be a bit slow responding. The best bet for progress on the reclamation assessment is to have Court contact Geoff Clark directly and let them work it out. Lawyers are good for burying in rock piles, not in assessing the cost of reclaiming them! I`ll leave the reclamation assessment to the experts - Geoff and Court. I have relayed the balance of your e-mai8l to Charlie and Paul Emingak asking for some indication of what might work with Charlie`s schedule. I know he wants to meet with you and and hear first hand what shear has palnned for ther Jericho site. Once we have some p-possible dates, we`ll get back to you. I trust that all is well and a less frantic for you now and hope we can find a early date for a meeting.
06-Oct-10	12:37	Kit IA	John Donihee, lawyer	Jericho	e-mail to, from PS re: àwesome John, I will get Denise to organize with Paul. Thanks,. Pam.
06-Oct-10	13:49	Kit IA	Paul Emingak (A Executive Director)	Jericho	e-mail to, from LD re: Hi Paul - further to John Donihee`s e-mail to Pam Strand, can you please let em know a good date time location for a meeting.
13-Oct-10	8:12	Kit IA	Paul Emingak (A Executive Director)	Jericho	e-mail from, to DL re: Charlie Evalie advised the meeting can take place at Nunasi Corporation office on November 18 at 4:00 p.m. Charlie will contact Nunasi CXEO Tim Zehr for the boardroom, the KIA will take Pam and her group to dinner. This dinner to be announced.
14-Oct-10	16:04	Kit IA	Paul Emingak (A Executive Director)	Jericho	e-mail to, from DL re: Hello Paul. Pam passed a letter along to me today dated September 24 from Mr. Evalik stating that a presentation to the KIA Board of Directors could be arranged. Can you confirm for me that the meeting on November 18 in Yellowknife is with or without the Board of Directors. Pam would like at the November 18 meeting to introduce her team to the KIA, and provide a presentation on Shear Minerals, and discuss the upcoming water license renewal. It is likely that there will be six people in the Shear Minerals team including Ms. Strand.
15-Oct-10	8:46	INAC HQ	Patrick O`Neill,	Jericho	e-mail to, from DL re: request for meeting with Minister and PS end of October
17-Oct-10		INAC HQ	Patrick O`Neill,	Jericho	e-mail from, to DL re: yes, require official letter of request to meet with Minister, and confirm attendance at Geoscience Forum.
23-Oct-10	14:33	Can Nor	Stephen Van Dine	Jericho	e-mail to, from DL re: request for meeting during Geoscience Forum
23-Oct-10	17:58	Can Nor	Stephen Van Dine	Jericho	e-mail from, to DL re: request for meeting during Geoscience Forum
25-Oct-10		GC	Honourable John Duncna, Minister of INAC	Jericho	letter to, from PS re: request for meeting
25-Oct-10	13:30	INAC HQ	Patrick O`Neill,	Jericho	e-mail to, from DL with attachment (letter to Minister Duncan) requesting meeting
25-Oct-10	12:24	INAC HQ	Patrick O`Neill,	Jericho	e-mail from, to DL re request for meeting with Minister `will do
25-Oct-10		Inuit Tapirisat	Mary Simon	Jericho	letter to, from PS re: decline request for sponsorship
10-Nov-10		Can Nor	Manik	Jericho	e-mail to, from DL re: proposed meeting
10-Nov-10		INAC NU	Bernie macIssac	Jericho	e-mail to, from DL re: proposed meeting to meet new rdg
10-Nov-10		Kiit IA	John Donihee, lawyer	Jericho	e-mail to, from DL re: propsed meeting with Kit IA
18-Nov-10	10:00	INAC NU	Robin Aitken RDG, Bernie MacIssac, Karen Costello, Jeff Mercer, Lou Ann, Tanya	Jericho	PS, ARA, MT, DL, JLG: meeting to meet new Regional Director General and discuss Jericho Project

18-Nov-10	16:00	Kit IA	Charlie Evalik, John Donihee, John Stephenson	Jericho	PS, ARA, MT, DL, JLG: meeting to meet Kitikmeot Inuit Association, discuss project. Dinner after meeting.
24-Nov-10			Kivalliq Trade Show	Chester	DL attendance and participation in Kivalliq Trade Show in Rankin Inlet
07-Dec-10	14:18	KC	Charlie Lyall, President	Jericho	e-mail to, from DL re: request for meeting
07-Dec-10			Lane Dewar	Jericho	letter to, from PS re: unable to support donation request
07-Dec-10			Billy Kuksak, Arviat Music Festival	Chester	letter to, from PS re: unable to support donation request
08-Dec-10		GN	Keith Peterson, MLA Cambridge Bay	Jericho	e-mail to, from DL re: request for meeting when in community
11-Dec-10	12:33	NTI	Carson Gilles, Director of Lands	Jericho	e-mail to, from PS re: I will be in the community and would like an opportunity to visit and provide an informal briefing
13-Dec-10	14:30	Kit IA	President Charlie Evalik, Dennis Lyall (Taloyoak) Attima Hadlari (Cambridge Bay), Peter kapolak (umingmaktok Bathurst Inlet), Jack Kaniak (Kugluktuk) Joe Allen A (Kugluktuk) Geoff Clarke KIA Lands	Jericho	PS and DL provide the Kit IA Board of Directors and Staff with a update on the Jericho Project.
14-Dec-10	8:30	GN	Hugh MacIssac, District Geologist	Jericho	PS and DL provided Hugh with an informal briefing on the project.
14-Dec-10	9:00	Hamlet	Stephen King (SAO) and Jim McEachern (EDO)	Jericho	PS and DL provided the SAO and EDO with an informal briefing on the project
14-Dec-10	10:00	NTI	Carson Gilles, Keith Morrison	Jericho	PS and DL provided Keith and Carson with an informal briefing on the project
14-Dec-10	11:00	GN	Keith Peterson, MLA Cambridge Bay	Jericho	PS and DL provided Keith with an informal briefing on the project.
14-Dec-10	11:30	KC	Clare Basler, COO	Jericho	PS and DL provided Clare with an informal briefing on the project and discussed various business opportunities.
14-Dec-10	noon	Kit IA	Geoff Clarke	Jericho	PS and DL had lunch with Geoff Clark. Casual discussion about the project.
14-Dec-10	13:00	NIRB	Stephanie Autut	Jericho	PS and DL provided Stephanie with an informal briefing on the project
14-Dec-10	20:27	NRC	Ron Wallace	Jericho	e-mail from, to PS re: NRC newsletter
15-Dec-10	15:54	KC	Clare Basler, COO	Jericho	e-mail from, to DL re: proposed meeting at Roundup
16-Dec-10	14:45	NTI	Carson Gillis	Jericho	e-mail from, to PS re: thank you for visit
16-Dec-10	13:21	NTI	Carson Gillis	Jericho	e-mail to, from PS re: thank you for kind words of support
16-Dec-10	13:46	Kit IA	Geoff Clarke	Jericho	e-mail to, from PS re: letters of credit as requested
16-Dec-10	12:32	KC	Clare Basler, David General	Jericho	e-mail to, from PS re: Clare it was great to see you in Cbay this weel. That time works for the Shear team - let us know room details as soon as available. See you then and Merry Christmas. Cheers Pam.
16-Dec-10		Kit IA	Charlie Evalik	Jericho	e-mail to, from DL re: Hello Charlie, as promised here is a copy of the presentation that Pam gave to you and your Board of Directors this week. Wishing you all the very best to a wonderful and peaceful new year. Denise
16-Dec-10	15:18	Kit IA	Charlie Evalik, Paul E, Geoff Clarke	Jericho	e-mail from, to DL re: thanks Denise for this. I did talk with the RDG of INAC while they were in Cambridge Bay this week on the Water Licence extension needed by Shear Minerals.

17-Dec-10	5:46	KC	David General	Jericho	e-mail from, to PS re: `Hi Pam. Good to hear the meeting time proposed of 3:30 on Wednesday January 26th works for you. We have a meeting room reserved right at the Westin Bayshore, called the Director`s Room. Its on the 2nd level (tower meeting rooms). Ive attached a floorplan that shows the location of the room if required.
16-Dec-10		GN	Keith Peterson, MLA Cambridge Bay	Jericho	letter to, from PS re: thank you for meeting and enclosed information on Shear Minerals.
16-Dec-10		NTI	Cathy Towtongie, President	Jericho	letter to, from PS re: cognratulations on election
16-Dec-10		Hamlet of Rankin Inlet	Puujuit Kusugak	chester	letter to, from PS re: congratulations on election
16-Dec-10		Hamlet of Chesterfield Inlet	Harry Aggark	Chester	letter to, from PS re: congratulations on election
17-Dec-10	12:07	Kit IA KC	Geoff Clarke, Clare Basler	Jericho	e-mail to, from DL re: copy of presentation given earlier in the month
17-Dec-10	16:00	INAC NU	Lou Ann Ciornacchio	Jericho	e-mail from to PS and ARA re: `good afternoon. I am writing to let you know that the Minister signed the Jericho Type A water Licence renewal today. Regards and happy holidays. Lou Ann.
17-Dec-10	14:11	Kit IA	Charlie Evalik, Geoff Clark, John Donihee	Jericho	e-mail to, from PS re: Dear charlie John and Geoff: I just wanted to inform you that we just received good news from the Minister`s office in ottawa. Today the Minister signed off on and granted Shear Minerals Ltd both the assignment of the Jericho Water License and the applied for renewal. This is all very exciting news and really speaks to the hard work and dedication that everyone has put into making this happen - i would like to give a huge thank you to everyone at the Kitikmeot Inuit Association for your support and the priority you gave tghe file. Wishing everyone a Happy Holiday and all the best for 2011!!! Pam
17-Dec-10	11:50		Elisabeth Haddlari	Jericho	e-mail to, from PS re: it was a pleasure to meet you at the NTI offices this week in Cambridge Bay. I will follow up with my team on some minerals that may work to polish - maybe some of our garents. Also, Denise Lockett will be working on planning for our February community meetings and she may be in touch with you further about translators. Have a Happy Holidays. Cheers. Pam
22-Dec-10			Lane Deward	Jericho	e-mail from,t o PS re: Hi Pam. Thanks for responding to my e-mail regarding sponsorship for the Canada Winter Games hockey team. Merry x-mas and all the best in the New Year. Lane.
22-Dec-10	14:15	NWB	Phyllis Beaulieu	Jericho	e-mail from, to ARA re: attached for your information is a copy of the Minister`s short-term renewal approval for the Jericho project.
23-Dec-10			Charlie Evalik, Charlie Lyall, Keith Peterson, Clare Basler, David General, Robert Connelly, Veronica T., Bernie MacIssac, Karen Costello, Dionne Filiatrault, Stephanie Autut, Tom Hoefer, Chief Ted Tsetta, Chief Ed Sangris, Todd Slack		e-mail to, from DL re: attached news release re: name change

05-Jan-11	8:17		Peter Taptuna, Keith Morrison, Steve King, Hugh MacIssac, Charlie Evalik, Geoff Clark, Stanley Anablak, Anne Klengenberg, Clare Basler, Ernie Bernhardt, Baba Pedersen	Jericho	e-mail to, from DL re: arrangements for meetings intervidews in Cambridge Bay and Kugluktuk during week of January 17 and 18
05-Jan-11	9:41	GN	Hugh MacIssac, District Geologist	Jericho	e-mail from, to DL re: arrangements for meetings in Cambridge Bay
05-Jan-11	9:48	GN	Hugh MacIssac, District Geologist	Jericho	e-mail to, from DL re: thanks for offer of assistance
05-Jan-11	9:45	GN	Wiz Mohammed, GN	Jericho	e-mail from, to DL re: offer of assistance for meetings in Kugluktuk
05-Jan-11	9:51	GN	Wiz Mohammed, GN	Jericho	e-mail to, from DL re: thank you for offer of assistance
05-Jan-11		Kit IA	Helen Larocque, KIA Benficiary Services	Jericho	e-mail from, to DL re: assistance is setting up meetings
Jan , 2011	10:04	Kit IA	Helen Larocque, KIA Benficiary Services	Jericho	e-mail to, from DL re: thank you for offer of assistance
05-Jan-11	10:50	Kit IA	Helen Larocque, KIA Benficiary Services	Jericho	e-mail from, to DL re: request meeting poster to distribute
05-Jan-11	12:22	Kit IA	Mona Tiktalek, CLO Kugluktuk	Jericho	e-mail from, to DL re: offer of assistance for meetings in Kugluktuk
05-Jan-11	12:23	Kit IA	Mona Tiktalek, CLO Kugluktuk	Jericho	e-mail to, ffrom DL re: request meeting space for interview at KIA office
05-Jan-11	12:47	Hamlet of Cambridge Bay	Jim MacEachern, CEDO	Jericho	e-mail from, to DL re: offer of assistance for meetings in Cambridge Bay
05-Jan-11	12:48	Hamlet of Cambridge Bay	Jim MacEachern, CEDO	Jericho	e-mail to, from DL re: thanks for offer of assistance
05-Jan-11	12:43	GN	Hugh MacIssac, District Geologist	Jericho	e-mail from, to Don LeBlanc (SAO of Kugluktuk) re: mayors e-mail address bounced back
10-Jan-11	10:04	misc	Leona Agkukkaq, MP, Nunavut, Peter Taptuna, Pat Angnakak, Keith Morrison, Martin Van Rooy, Robin Aitken, Patrick O`Neill, Syd glawson, Steve King, Hugh MacIssac, Charlie Evalik, Geoff Clark, Stanley Anablak, Anne Klengenberg, Charlie Lyall, Clare Basler, Don Le Blac, Carson Gillis, Baba Pedersen, Rosemary Keenainak, Gordon MacKay, Jeff Mercer, Leslie Payette, Dionne Filiatrault, Stephanie Autut, Sharion Ehaloak, Karen Costello, Sophia Granchinhio, Wiz Moahmmed, Helen Larocque	Jericho	e-mail to, from DL re: forwarded news release annoucing VP`s of Exploration and Operations

12-Jan-11	10:24	misc	S King, Charlie Evalik, Charlie Lyall, Clare Basler, Hugh macIssac, Anne Klengenberg, Keith Peterson, Peter Taptuna, Alex Buchan	Jericho	e-mail to, from DL re: attached poster re recruitment meetings in Cambridge Bay Jan 18 and 19
12-Jan-11	10:28	misc	Geoff Clarke, Don Le Blanc, Peter Taptuna, Mona T., Miranda Atatahak	Jericho	e-mail to, from DL re: attached poster re recruitment meetings in Kugluktuk on Jan 20
18-Jan-11	9:00		interested residents of Cambridge Bay	Jericho	DL: opportunity in Cambridge Bay at the KIA office for interested residents to bring resumes and meet with DL about opportubnities at the Jericho Diamond Mine.
19-Jan-11	9:00		interested residents of Cambridge Bay	Jericho	DL: opportunity in Cambridge Bay at the KIA office for interested residents to bring resumes and meet with DL about opportubnities at the Jericho Diamond Mine.
20-Jan-11	9:00		interested residents of Kugluktuk	Jericho	D: opportunity in Kugluktuk at the KIA office for interested residents to bring resumes and meet with DL about opportunities at the Jericho Diamond Mine
25-Jan-11	13:00	GN	Minister Peter Taptuna	Jericho	DL & PS meeting with NWT & NU Chamber of Mines and opportunity to meet face to frace with the Minister and his staff
26-Jan-11	11:15	KIA	Charlie Evalik, Geoff Clarke, John Donihee, Ron Wallace, Peter E.	Jericho	PS, JLG, DL, ARA, MT, Fred Mason, MT - meeting with KIA to discuss project plans and sign OU with Nunavut Resources Corporation
26-Jan-11	15:30	KC	Charlie Lyall, Wilf Wilcox, Clare Basdler, Toni, David General	Jericho	PS, DL and Fred Mason meeting with the Kitikmeot ciorporation to discuss the project and learn about companies and opportunities with the Kitikmeot Corporation
08-Feb-11			Leona Aglukkaq, Peter Taptuna, Pat Angnakak, Keith Peterson, Robin Aitken, Syd Glawson, Steve King, Hugh MacIssac, charlie Evalik, Geoff Clarke, Stanley Anablak, Clare Basler, Ernie Bernhardt, Carson Gillis, Baba Pedersen, Rosemary Keenainak, Gordon MacKay, Jeff Mercer, Leslie Payette, Dionne Filiatrault, Stephanie Autut, Sharon Ehaloak, Karen Costello, Sophia Granchinho, Wiz Mohammed, Helen Larocque	Jericho	e-mail to, from DL re: attached Feb 8, 2011 news release `Shear Reports Diamond Content Range up to 11.3 cpt from recovery reject tailings audit at Jericho
11-Feb-11			Geoff Clarke, Anne Klengenberg, Keith Peterson, NIRB, NPC, Arctic College, Northern Store, Coop, etc.	Jericho and Carat	fax to every fax machine available in Cambridge Bay and Kugluktuk - poster announcing community visits
14-Feb-11			Charlie Evalik, President KIA	Jericho and Carat	informal discussion regarding Jericho/Carat and permitting issues

Feb 14 - 16, 2011			Mayor Syd Glawson, Keith Peterson MLA Cambridge Bay, MP Leona Aglukkaq, various business people and members of the public	Jericho and Carat	attendance and participation at Kitikmeot Trade Show events - casual conversations about the project, opportunities and challenges
16-Feb-11	14:00	Alaska	David General, Keith Morrison and two guests from Alaska	Jericho	informal discussion regarding Shear's experience with corporate social responsibility
17-Feb-11	18:30	public	Jane George (Nunatsiaq News), Ruby and Jimmy Hanilak, Bobby Suluk (NPC) Ann Klengenberg (KIA), Deidra Kavanna, Richard Ekpakohak, Amy (NIRB)	Jericho and Carat	public meeting to discuss Shear's plans for the Jericho Project as well as exploration at Carat. Discussed employment and business opportunities.
19-Feb-11		KC	David General	Jericho	e-mail from, to PS re: thank you for visit
18-Feb-10	14:30	KIA	Mona T, Geoff Clarke, Don Leblanc SAO	Jericho and Carat	e-mail to, from DL re: unfortunately due to passing of elder in community, and weather concerns, able to make it into the community at this time. Will reschedule.
20-Feb-11			Leona Aglukkaq, Peter Taptuna, Pat Angnakak, Keith Peterson, Robin Aitken, Syd Glawson, Steve King, Hugh MacIssac, charlie Evalik, Geoff Clarke, Stanley Anablak, Clare Basler, Ernie Bernhardt, Carson Gillis, Baba Pedersen, Rosemary Keenainak, Gordon MacKay, Jeff Mercer, Leslie Payette, Dionne Filiatrault, Stephanie Autut, Sharon Ehaloak, Karen Costello, Sophia Granchinho, Wiz Mohammed, Helen Larocque	Jericho	e-mail to, from DL re: attached February 15, 2011 news release re: Shear diamonds signs agreement with NRC.
28-Feb-11	10:54		Leona Aglukkaq, Peter Taptuna, Pat Angnakak, Keith Peterson, Robin Aitken, Syd Glawson, Steve King, Hugh MacIssac, charlie Evalik, Geoff Clarke, Stanley Anablak, Clare Basler, Ernie Bernhardt, Carson Gillis, Baba Pedersen, Rosemary Keenainak, Gordon MacKay, Jeff Mercer, Leslie Payette, Dionne Filiatrault, Stephanie Autut, Sharon Ehaloak, Karen Costello, Sophia Granchinho, Wiz Mohammed, Helen Larocque	Jericho	e-mail to, from DL re: attached Feb 28, 2011 news release re" Shera announces work plan for the Jericho Project"
28-Feb-11		GC	Leona Aglukkaq	jericho	telephone call to, from PS re: support for emergency extension request