



shear
diamonds

**TYPE A WATER LICENSE
2AM-JER1119
Jericho Diamond Mine**

Monthly Report

Month being reported: March 2012

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1 INTRODUCTION

This Monthly Report is prepared as per Part B, Section 2 of the Type A Water License 2AM-JER1119, made effective by the Nunavut Water Board (NWB) on February 07 2012, to Shear Diamonds (Nunavut) Corp., a wholly owned subsidiary of Shear Diamonds Ltd.

Shear Diamonds Ltd. applied for a renewal application in February 2011. The NWB held a public hearing related to that application on November 30, 2011 and December 1, 2011 in Kugluktuk, NU. License 2AM-JER1119 replaced 2AM-JER0410, which was originally granted to Benachee Resources Inc.

2 MONTHLY AND ANNUAL QUANTITIES OF WATER OBTAINED FROM CARAT LAKE, LYNNE LAKE AND CONTWOYTO LAKE (Schedule B, Item 1a)

Freshwater was drawn from Carat Lake for domestic water use in the accommodations complex, offices, maintenance complex, dust control and the operation of the process plant. Table 2.1 provides the monthly and annual quantity of freshwater used. A total of 189.7 m³ of water was drawn from Carat Lake since the beginning of 2012.

There has not been a winter road to the Jericho site since 2008. Accordingly, no water has been obtained from either Lynne Lake or Contwoyto Lake since that time.

Table 2.1- CARAT LAKE - Freshwater Use January - March 2012 (m3)

MONTH	DOMESTIC WATER USE	PROCESS PLANT	CUMULATIVE TOTALS
January	71.1	50.0	121.1
February	57.6	11.0	68.6
March	90.0	21.0	110.0
April	N/A	N/A	N/A
May	N/A	N/A	N/A
June	N/A	N/A	N/A
July	N/A	N/A	N/A
August	N/A	N/A	N/A
September	N/A	N/A	N/A
October	N/A	N/A	N/A
November	N/A	N/A	N/A
December	N/A	N/A	N/A
ANNUAL TOTALS	128.7	61.0	189.7

Daily values can be found in Appendix A

3 MONTHLY AND ANNUAL QUANTITIES OF RECYCLED WATER (Schedule B, Item 1b)

While operating under Temporary Closure, no recycled water was used from the PKCA. Water pumped from Carat Lake into the Process Plant does get recycled within the Plant for a length of time prior to being discharged into the PKCA.

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

East Sump

No water was pumped to or from the east sump in 2012, as of the end March 2012.

Sewage Treatment Plant

Refer to section 7.

Open Pit

Refer to section 6.

Oztek Unit

Refer to Section 9.

Seepage

There has not been a seepage survey done in March 2012.

During Temporary Closure activities, production of fine PK was, and will continue to be limited to a small amount produced during the evaluation of the process plant using stockpiled material. Cell A has sufficient capacity for this evaluation work.

5 MONTHLY AND ANNUAL QUANTITIES OF ANY DISCHARGES FROM THE PROCESSED KIMBERLITE CONTAINMENT AREA (Schedule B, Item 1d)

Discharge from the PKCA has not taken place yet in 2012.

A total of 0 m³ of water was discharged from the PKCA into the receiving environment.

Table 5.1 – Volume of Supernatant Discharge to Receiving Environment

MONTH	VOLUME DISCHARGED FROM THE PKCA (m ³)
January	0
February	0
March	0
April	N/A
May	N/A
June	N/A
July	N/A
August	N/A
September	N/A
October	N/A
November	N/A
December	N/A
ANNUAL TOTAL	0

6 MONTHLY AND ANNUAL QUANTITIES OF MINE PIT WATER AND DYKE SEEPAGE PUMPED FROM ALL FACILITIES TO THE PROCESSED KIMBERLITE CONTAINMENT AREA (Schedule B, Item 1e)

Table 6.1 summarizes the monthly and annual volumes of water pumped from the Jericho pit. As of January 2012, there has not been any volume pumped from the pit into the PKCA.

Table 6.1 – Quantities in m³ of pit water pumped to the PKCA

MONTH	VOLUME PUMPED FROM PIT TO PKCA (m³)
January	0
February	0
March	0
April	N/A
May	N/A
June	N/A
July	N/A
August	N/A
September	N/A
October	N/A
November	N/A
December	N/A
TOTAL VOLUME PUMPED (m³)	0

7 MONTHLY AND ANNUAL QUANTITIES OF TREATED EFFLUENT DISCHARGED FROM THE WASTEWATER TREATMENT FACILITY (Schedule B, Item 1f)

Table 7.1 summarizes the monthly and annual volumes of treated effluent discharged from the Wastewater Treatment Facility – Sewage Treatment Plant (STP). All discharges of treated effluent from the STP in 2012 were deposited into the PKCA. A total of 135.9 m³ of treated sewage effluent was discharged from the STP to the PKCA in 2012 as of March.

Table 7.1 – Quantities in m³ discharged from Waste Water Treatment Facility to PKCA

MONTH	Volume Treated – WWTP Treated Effluent (m³)
January	48.0
February	17.4
March	70.5
April	N/A
May	N/A
June	N/A
July	N/A
August	N/A
September	N/A
October	N/A
November	N/A
December	N/A
TOTAL VOLUME PUMPED (m³)	135.9

Daily values can be found in Appendix B

8 MONTHLY AND ANNUAL QUANTITIES OF SEWAGE SOLIDS REMOVED FROM THE WASTEWATER TREATMENT FACILITY (Schedule B, Item 1g)

The removal of sewage solids from the Wastewater Treatment Facility has not been required on a regular basis while operating under Temporary Closure conditions. Settled solids were removed from the aeration tank as required based on camp population in order to maintain efficient functioning of the Sewage Treatment Plant. Settled solids are collected using a vacuum truck and deposited into a designated basin located on the till dump. Table 8.1 summarizes the volume of sewage solids removed from the Wastewater Treatment Facility. A total of 0 m³ of settled sludge was deposited into the designated basin on the till dump in March of 2012.

Table 8.1 Sewage Solids Removed January – December 2012

MONTH	SEWAGE SOLIDS REMOVED (m ³)
January	0
February	0
March	0
April	N/A
May	N/A
June	N/A
July	N/A
August	N/A
September	N/A
October	N/A
November	N/A
December	N/A
TOTAL	0

9 MONTHLY AND ANNUAL QUANTITIES OF TREATED EFFLUENT DISCHARGED FROM THE HYDROCARBON CONTACT WATER REMEDIATION UNIT (Schedule B, Item 1h)

In 2011 Shear Diamonds Ltd. assisted in the design of a mobile hydrocarbon contact water remediation unit (Oztek). This unit is used to treat water that is pumped from secondary containment areas. Prior to discharge to the PKCA, water is treated, sampled and pumped to the PKCA. Table 9.1 summarizes the volumes of treated and discharged from the Oztek to the PKCA. So far, there has not been any remediated water processed by the Oztek in 2012, as the water is still frozen.

Table 9.1 Volumes of treated effluent discharged from Oztek to PKCA (m³)

MONTH	VOLUMES OF EFFLUENT DISCHARGED (m ³)
January	0
February	0
March	0
April	N/A
May	N/A
June	N/A
July	N/A
August	N/A
September	N/A
October	N/A
November	N/A
December	N/A
TOTAL	0

10 ANNUAL QUANTITIES OF OVERBURDEN, WASTE ROCK, ORE STOCKPILED, OR PROCESSED STORED (Schedule B, Item 1i)

The Jericho mine site continues to be operated under Temporary Closure conditions. There have been no materials mined, stockpiled or stored since Tahera operations ceased in 2008.

11 SUMMARY OF CONSTRUCTION ACTIVITIES AND UPDATED MINE PLAN (Schedule B, Item 1k)

The Jericho mine site has not had any construction activities in March 2012. No construction activities took place and there have been no changes to the Mine Plan originally filed by Tahera Diamond Corporation.

12 SUMMARY OF ANY MODIFICATION AND/OR MAJOR MAINTENANCE WORK AND/OR DEMOLITION WORK AND ANY ASSOCIATED STRUCTURES (Schedule B, Item 1l)

No modifications, major maintenance work or demolition work took place in March.

13 LIST AND DESCRIPTION OF ALL UNAUTHORIZED DISCHARGES AND SPILLS (Schedule B, Item 1t)

There were no unauthorized discharges at the Jericho mine site March, 2012. There were 7 spills reported in March, 2012. All spill reports can be found in Appendix C.

14 OUTLINE OF SPILL TRAINING EXERCISES CARRIED OUT BY THE LICENSEE (Schedule B, Item 1u)

No spill training exercises were carried out by Shear Diamonds Ltd. March 2012. While operating under Temporary Closure conditions, the number of people on site is limited and all potential training opportunities were not conducive with flight logistics in and out of site. The decision was made to hold off on training until such time as more people were available to participate making it more cost effective and productive.

15 SITE INSPECTIONS

There were no site inspections in March 2012 at the Jericho Mine Site.

16 SITE VISITORS

No visitors were present on site, with the exception of contractors from Finning, during the month of March.

17 NON-COMPLIANCES

March had a few compliance issues. Issues regarding improper waste sorting, handling and incineration. There are also compliance issues with the storage of waste hydrocarbons, secondary containment, waste storage and handling in the truck shop at site. Action plans are being developed to address these issues.

Water testing analysis for SWQ-01 effluent and influent, SWQ-12 carat lake pump house, dustfall air quality and site drinking water can be found in Appendix D

APPENDIX A: Daily values of water drawn from Carat Lake pump house

Date	Time	Meter Reading (m ³)	Actual Volume (m ³)	Initials
1-Mar-12	6:30 AM	226607		AU
2-Mar-12	6:15 AM	226607	0	AU
3-Mar-12	6:30 AM	226607	0	AU
4-Mar-12	6:45 AM	226607	0	AU
5-Mar-12	6:22 AM	226607	0	AU
7-Mar-12	7:05 AM	226607	0	WA
8-Mar-12	8:40 AM	226607	0	WA
9-Mar-12	6:40 AM	226706	10	WA
10-Mar-12	6:11 AM	226977	27	AU
11-Mar-12	6:30 AM	226977	0	AU
12-Mar-12	6:30 AM	226977	0	AU
13-Mar-12	6:30 AM	226977	0	AU
14-Mar-12	N/A	227076	10	N/A
15-Mar-12	6:10 AM	227076	0	MC
16-Mar-12	6:15 AM	227076	0	MC
17-Mar-12	6:30 AM	227076	0	MC
18-Mar-12	6:25 AM	227076	0	MC
19-Mar-12	6:30 AM	227076	0	MC
20-Mar-12	6:15 AM	227232	16	MC
21-Mar-12	6:20 AM	227232	0	MC
22-Mar-12	12:35 PM	227232	0	MC
23-Mar-12	7:00 AM	227232	0	MC

24-Mar-12	7:05 AM	227232	0	MC
25-Mar-12	6:45 AM	227232	0	MC
26-Mar-12	6:45 AM	227232	0	MC
27-Mar-12	6:25 AM	227414	18	MC
28-Mar-12	6:15 AM	227414	0	MC
29-Mar-12	6:15 AM	227414	0	AU
30-Mar-12	6:15 AM	227508	9	AU
31-Mar-12	6:30 AM	227508	0	AU

APPENDIX B: Daily quantities removed from the Waste Water Treatment Facility to Cell A of the PKCA

Sewage Treatment Plant Discharge Data					
Date	Time	Flow Meter Reading [L]	Daily Discharge [L]	Vac Truck	
				Raw Sewage Pumped IN [US Gal]	Sludge Pumped Out [US Gal]
1-Mar-12	7:00				
2-Mar-12	7:00				
3-Mar-12	7:30				
4-Mar-12	7:45				
5-Mar-12	7:25		3,100		
7-Mar-12	7:50	3,100	2,120		
8-Mar-12	7:30	5,220	2,173		
9-Mar-12	7:00	7,393	4,448		
11-Mar-12	7:00	11,841	2,694		
12-Mar-12	7:18	14,535	7,828		
13-Mar-12	7:11	22,363	2,121		
15-Mar-12	7:30	24,484	3,327		
16-Mar-12	2:17	27,811	2,631		
17-Mar-12	7:00	30,442	4,364		
18-Mar-12	7:00	34,806	3,536		
19-Mar-12	7:10	38,342	3,210		
20-Mar-12	7:05	41,552			
21-Mar-12	12:35		2,536		
22-Mar-12	12:45	2,536	1,857		
23-Mar-12	7:00	4,393	5,212		
24-Mar-12	7:35	9,605			
25-Mar-12	7:00		3,000		
26-Mar-12	7:00	3,000	2,788		
27-Mar-12	7:00	5,788	5,295		

28-Mar-12	7:45	11,083	1,139		
29-Mar-12		12,222	3,250		
30-Mar-12	7:15	3,250	3,846		
31-Mar-12	7:22	7,096			

APPENDIX C: Spill reports



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

A REPORT DATE: MONTH - DAY - YEAR March 4 2012		REPORT TIME 7:15am		<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B OCCURRENCE DATE: MONTH - DAY - YEAR March 3 2012		OCCURRENCE TIME 4:30pm				
C LAND USE PERMIT NUMBER (IF APPLICABLE) KTL 311 C015			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-JER1119			
D GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Jericho Mine Site, 2 km S Carat L.			REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN			
E LATITUDE DEGREES 66 MINUTES 01 SECONDS 00			LONGITUDE DEGREES 111 MINUTES 27 SECONDS 00			
F RESPONSIBLE PARTY OR VESSEL NAME Shear Diamonds			RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Suite 220, 6 Adelaide St E Toronto ON M5C1H6			
G ANY CONTRACTOR INVOLVED no			CONTRACTOR ADDRESS OR OFFICE LOCATION n/a			
H PRODUCT SPILLED hydraulic fluid			QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 0.3L		U.N. NUMBER n/a	
SECOND PRODUCT SPILLED (IF APPLICABLE) n/a			QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES n/a		U.N. NUMBER n/a	
I SPILL SOURCE bobcat			SPILL CAUSE hydraulic leak		AREA OF CONTAMINATION IN SQUARE METRES 0.1m ²	
J FACTORS AFFECTING SPILL OR RECOVERY n/a			DESCRIBE ANY ASSISTANCE REQUIRED none		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT none	
K ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS - bobcat started to leak hydraulic fluid while being used for snow removal - once leak was noticed, bobcat was brought back to shop for repairs - hydraulic fluid was scraped off top layer of snow and ice and brought into truck shop for disposal						
L REPORTED TO SPILL LINE BY Wes Atchison		POSITION Environmental Technician		EMPLOYER Shear Diamonds		LOCATION CALLING FROM Jericho Mine Site
M ANY ALTERNATE CONTACT Dave Pennington		POSITION Medic		EMPLOYER Shear Diamonds		ALTERNATE CONTACT LOCATION Jericho
						TELEPHONE 778-372-2750
						ALTERNATE TELEPHONE 778-372-2726
REPORT LINE USE ONLY						
N RECEIVED AT SPILL LINE BY		POSITION STATION OPERATOR		EMPLOYER		LOCATION CALLED YELLOWKNIFE, NT
						REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC				SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

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Canada

Internal Only
NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR March 5 2012	REPORT TIME 11:10am	<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR March 5 2012	OCCURRENCE TIME 10:45am			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) CTL 311 C&IS	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-JER1119			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Jericho Mine Site		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 66 MINUTES 01 SECONDS 00		LONGITUDE DEGREES 111 MINUTES 27 SECONDS 00		
F	RESPONSIBLE PARTY OR VESSEL NAME Shear Diamonds	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Suite 220 6 Adelaide St E Toronto ON			
G	ANY CONTRACTOR INVOLVED n/a	CONTRACTOR ADDRESS OR OFFICE LOCATION n/a			
H	PRODUCT SPILLED oil	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 0.4 L	U.N. NUMBER 3082		
	SECOND PRODUCT SPILLED (IF APPLICABLE) n/a	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES n/a	U.N. NUMBER n/a		
I	SPILL SOURCE hose attached to pump	SPILL CAUSE dripping hose	AREA OF CONTAMINATION IN SQUARE METRES 0.1 m ²		
J	FACTORS AFFECTING SPILL OR RECOVERY none	DESCRIBE ANY ASSISTANCE REQUIRED n/a	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT none		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS after using pump for an oil change, it was being carried out to a truck and some residual oil dripped out and on to the ground - oil was shovelled/scraped from top layer of snow and placed in a barrel				
L	REPORTED TO SPILL LINE BY Wes Atchison	POSITION Environmental Tech	EMPLOYER Shear Diamonds	LOCATION CALLING FROM n/a	TELEPHONE n/a
M	ANY ALTERNATE CONTACT Kelly Hans	POSITION Electrician	EMPLOYER Shear Diamonds	ALTERNATE CONTACT LOCATION n/a	ALTERNATE TELEPHONE n/a
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY STATION OPERATOR	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY	CONTACT NAME		CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

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NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR March 15th 2012	REPORT TIME 10:11 a.m	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR March 15th 2012	OCCURRENCE TIME 9:30 a.m			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KTL 311 C015	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-Jer1119			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Jericho Mine Site		REGION <input checked="" type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 66 MINUTES 01 SECONDS 00		LONGITUDE DEGREES 111 MINUTES 27 SECONDS 00		
F	RESPONSIBLE PARTY OR VESSEL NAME Shear Diamonds	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Suite 220, 6 Adelaide St. E Toronto ON			
G	ANY CONTRACTOR INVOLVED No	CONTRACTOR ADDRESS OR OFFICE LOCATION n/a			
H	PRODUCT SPILLED Diesel (Hydrocarbon)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES ~3L	U.N. NUMBER 1202		
	SECOND PRODUCT SPILLED (IF APPLICABLE) none	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES n/a	U.N. NUMBER n/a		
I	SPILL SOURCE Fuel Pump	SPILL CAUSE Faulty Nozzle, was removed	AREA OF CONTAMINATION IN SQUARE METRES 0.5		
J	FACTORS AFFECTING SPILL OR RECOVERY None	DESCRIBE ANY ASSISTANCE REQUIRED none	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT None		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS -A Nozzle didn't function properly and was removed. -The line wasn't completely empty, so when it was removed, a few liters of diesel spilled onto the ice. -Absorption pads were placed immediately, and were placed in drums along with top surface of ice which got contaminated. -Will be getting a temporary plastic berm to place under pump/nozzle to prevent a reoccurrences.				
L	REPORTED TO SPILL LINE BY Matt Charbonneau	POSITION Environmental tech	EMPLOYER Shear Diamonds	LOCATION CALLING FROM Jericho Mine Site	TELEPHONE 778-372-2750
M	ANY ALTERNATE CONTACT Christina Seitz	POSITION HR	EMPLOYER Shear Diamonds	ALTERNATE CONTACT LOCATION Jericho Mine Site	ALTERNATE TELEPHONE 778-372-2726
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

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Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR March 17th 2012	REPORT TIME 2:15 p.m	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR March 17th 2012	OCCURRENCE TIME 4:40 p.m			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) CTL 311 C015	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-Jer1119			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Jericho Mine Site		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 66 MINUTES 01 SECONDS 00		LONGITUDE DEGREES 111 MINUTES 27 SECONDS 00		
F	RESPONSIBLE PARTY OR VESSEL NAME Shear Diamonds	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Suite 220, 6 Adelaide St. E Toronto ON			
G	ANY CONTRACTOR INVOLVED No	CONTRACTOR ADDRESS OR OFFICE LOCATION n/a			
H	PRODUCT SPILLED Diesel (Hydrocarbon)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES ~15L	U.N. NUMBER 1202		
	SECOND PRODUCT SPILLED (IF APPLICABLE) none	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES n/a	U.N. NUMBER n/a		
I	SPILL SOURCE Fuel tank behind pickup	SPILL CAUSE Faulty nozzle	AREA OF CONTAMINATION IN SQUARE METRES 2.5		
J	FACTORS AFFECTING SPILL OR RECOVERY None	DESCRIBE ANY ASSISTANCE REQUIRED none	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT None		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS -filling fuel tank behind truck with heavy duty truck fill nozzle. -tank reached full and handle didn't release, and kept filling after it was manually released. -Continued to overflow until emergency stop button was activated. -All the contaminated snow was shoveled into barrels and brought to the Hazardous Waste Transfer Area (HWTa) -All staff has been advised to refrain from using the heavy duty truck fill nozzle until it can be properly replaced				
L	REPORTED TO SPILL LINE BY Matt Charbonneau	POSITION Environmental tech	EMPLOYER Shear Diamonds	LOCATION CALLING FROM Jericho Mine Site	TELEPHONE 778-372-2750
M	ANY ALTERNATE CONTACT Christina Seitz	POSITION HR	EMPLOYER Shear Diamonds	ALTERNATE CONTACT LOCATION Jericho Mine Site	ALTERNATE TELEPHONE 778-372-2726
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME		CONTACT TIME	REMARKS
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

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Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR March 18th 2012	REPORT TIME 1:35 p.m	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR March 18th 2012	OCCURRENCE TIME 10:00 a.m			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) CTL 311 C015	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-Jer1119			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Jericho Mine Site		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 66 MINUTES 01 SECONDS 00		LONGITUDE DEGREES 111 MINUTES 27 SECONDS 00		
F	RESPONSIBLE PARTY OR VESSEL NAME Shear Diamonds	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Suite 220, 6 Adelaide St. E Toronto ON			
G	ANY CONTRACTOR INVOLVED No	CONTRACTOR ADDRESS OR OFFICE LOCATION n/a			
H	PRODUCT SPILLED diesel	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES ~5	U.N. NUMBER 1202		
	SECOND PRODUCT SPILLED (IF APPLICABLE) none	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES n/a	U.N. NUMBER n/a		
I	SPILL SOURCE Fuel Pump	SPILL CAUSE poorly fitting quick connect	AREA OF CONTAMINATION IN SQUARE METRES 0.2		
J	FACTORS AFFECTING SPILL OR RECOVERY none	DESCRIBE ANY ASSISTANCE REQUIRED none	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT none		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS -Fueling day tank for the generators using our fuel truck. -When pump was turned on, one of the quick connects sprung a leak. -Pads were placed under connection prior to spill, but some managed to roll off into the snow -All snow was immediately pickup, and shoveled into drums and moved to the truck shop where it will be properly disposed of. -Faulty quick connect was removed and fueling had no further issues				
L	REPORTED TO SPILL LINE BY Matt Charbonneau	POSITION Environmental Tech	EMPLOYER Shear Diamonds	LOCATION CALLING FROM Jericho Mine Site	TELEPHONE 778-372-2723
M	ANY ALTERNATE CONTACT Christina Seitz	POSITION Human Resources	EMPLOYER Shear Diamonds	ALTERNATE CONTACT Jericho Mine Site	ALTERNATE TELEPHONE 778-372-2726
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

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TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR March 21st, 2012	REPORT TIME 4:57 p.m	<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH – DAY – YEAR March 21st, 2012	OCCURRENCE TIME 4:20 p.m			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KTL 311 C015	WATER LICENCE NUMBER (IF APPLICABLE) 2AM-Jer1119			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Jericho Mine Site		REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 66 MINUTES 01 SECONDS 00		LONGITUDE DEGREES 111 MINUTES 27 SECONDS 00		
F	RESPONSIBLE PARTY OR VESSEL NAME Shear Diamonds	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Suite 220, 6 Adelaide st. E, Toronto ON			
G	ANY CONTRACTOR INVOLVED no	CONTRACTOR ADDRESS OR OFFICE LOCATION n/a			
H	PRODUCT SPILLED Diesel (Hydrocarbon)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 7L	U.N. NUMBER 1202		
	SECOND PRODUCT SPILLED (IF APPLICABLE) non	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES non	U.N. NUMBER		
I	SPILL SOURCE Fueling station	SPILL CAUSE Poorly placed fuel nozzle	AREA OF CONTAMINATION IN SQUARE METRES 1		
J	FACTORS AFFECTING SPILL OR RECOVERY none	DESCRIBE ANY ASSISTANCE REQUIRED none	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT none		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS -Incident occurred while Fueling 950 loader. -Pump wasn't placed far enough into the fuel pipe. -When pump was turned on, pressure pushed it out and onto the ground. -Spill was cleaned up immediately and reported. -Staff will be warned about the potential for spills as soon as possible.				
L	REPORTED TO SPILL LINE BY Matt Charbonneau	POSITION Env. Technician	EMPLOYER Shear Diamonds	LOCATION CALLING FROM Jericho Mine Site	TELEPHONE 778-372-2723
M	ANY ALTERNATE CONTACT Christina Seitz	POSITION Human Resources	EMPLOYER Shear Diamonds	ALTERNATE CONTACT Jericho Mine Site	ALTERNATE TELEPHONE 778-372-2726
REPORT LINE USE ONLY					
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					

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NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6824

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR March 31, 2012		REPORT TIME 10:15am		<input checked="" type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # TO THE ORIGINAL SPILL REPORT	REPORT NUMBER 12-105
	OCCURRENCE DATE: MONTH - DAY - YEAR March 31, 2012		OCCURRENCE TIME 9:15am			
C	LAND USE PERMIT NUMBER (IF APPLICABLE) KTL 311 C015			WATER LICENCE NUMBER (IF APPLICABLE) 2AM-JER1119		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Jericho Mine Site					
D	REGION <input type="checkbox"/> NWT <input checked="" type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN					
	LATITUDE DEGREES 66 MINUTES 01 SECONDS 00					
E	LONGITUDE DEGREES 111 MINUTES 27 SECONDS 00					
	RESPONSIBLE PARTY OR VESSEL NAME Shear Diamonds					
F	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION Suite 220, 6 Adelaide St E Toronto ON					
	ANY CONTRACTOR INVOLVED no					
G	CONTRACTOR ADDRESS OR OFFICE LOCATION n/a					
	PRODUCT SPILLED Diesel					
H	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 3L		U.N. NUMBER 1202			
	SECOND PRODUCT SPILLED (IF APPLICABLE) none		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES n/a		U.N. NUMBER n/a	
I	SPILL SOURCE Fuel Truck		SPILL CAUSE Overfilled truck		AREA OF CONTAMINATION IN SQUARE METRES 2	
	FACTORS AFFECTING SPILL OR RECOVERY none		DESCRIBE ANY ASSISTANCE REQUIRED none		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT none	
J	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS -fuel truck was over filled and leaked onto snow in area where it was parked -spill was immediately cleaned up and reported -staff was re-informed about how far to fill up the truck					
K						
L	REPORTED TO SPILL LINE BY Wes Atchison	POSITION Environmental Tech.	EMPLOYER Shear Diamonds	LOCATION CALLING FROM Jericho Mine Site	TELEPHONE 778-372-2723	
	ANY ALTERNATE CONTACT Jim Kane	POSITION Site Supervisor	EMPLOYER Shear Diamonds	ALTERNATE CONTACT Jericho Mine Site	ALTERNATE TELEPHONE 778-372-2726	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
	LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TO					
AGENCY			CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

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APPENDIX D: Raw Data from ALS water testing

SWQ-01. Effluent

ALS		Sample ID	JER-SWQ-01 EFFLUENT	JER-SWQ-01 EFFLUENT
4/25/2012		ALS ID	L1123950-3	L1128978-2
Multiple Work Orders		Date Sampled	3/14/2012 6:15:00 AM	3/28/2012 12:00:00 AM
Analyte	Units	LOR	Water	Water
Hardness (as CaCO ₃)	mg/L	1.3	46.7	51
Temperature	Degree C	1	25	25
Total Suspended Solids	mg/L	3	8	33
Total Dissolved Solids	mg/L	10	427	389
Turbidity	NTU	0.1	7.7	22.2
Acidity (as CaCO ₃)	mg/L	5	15	29.2
Alkalinity, Total (as CaCO ₃)	mg/L	5	9.4	<5.0
Ammonia, Total (as N)	mg/L	0.005	5.81	1.81
Bicarbonate (HCO ₃)	mg/L	5	11.5	<5.0
Carbonate (CO ₃)	mg/L	5	<5.0	<5.0
Chloride (Cl)	mg/L	0.5	95.9	101
Conductivity (EC)	uS/cm	0.2	722	706
Fluoride (F)	mg/L	0.05	0.059	<0.050
Hardness (as CaCO ₃)	mg/L	n/a	50.7	50.9
Hydroxide (OH)	mg/L	5	<5.0	<5.0
Ion Balance	%	n/a	106	106
Nitrate and Nitrite (as N)	mg/L	0.006	26.2	27.9
Nitrate (as N)	mg/L	0.006	26.0 *	27.9 *

Nitrite (as N)	mg/L	0.002	0.123	<0.050
Total Kjeldahl Nitrogen	mg/L	0.05	9.61	6.54
pH	pH	0.1	6.25	5.25
Orthophosphate-Dissolved (as P)	mg/L	0.001	8.48 *	9.52 *
Phosphorus (P)-Total Dissolved	mg/L	0.001	8.91 *	9.68 *
Phosphorus (P)-Total	mg/L	0.001	8.95 *	10.5 *
TDS (Calculated)	mg/L	n/a	383	397
Sulfate (SO4)	mg/L	0.05	35.5	34.1
Total Inorganic Carbon	mg/L	1	<1.0	<1.0
Total Organic Carbon	mg/L	1	24.3	27.1
Fecal Coliforms	CFU/100mL	1	108	54
Mercury (Hg)-Total	mg/L	0.00005	<0.000050	<0.000050
Aluminum (Al)-Total	mg/L	0.0002	0.0895	0.61
Antimony (Sb)-Total	mg/L	0.000005	0.00258	0.00223
Arsenic (As)-Total	mg/L	0.00002	0.00066	0.000707
Barium (Ba)-Total	mg/L	0.00002	0.00426	0.0158
Beryllium (Be)-Total	mg/L	0.000002	0.0000035	0.0000213
Bismuth (Bi)-Total	mg/L	0.000001	0.000768	0.00122
Boron (B)-Total	mg/L	0.005	0.206	0.135
Cadmium (Cd)-Total	mg/L	0.000005	0.000159	0.000622
Calcium (Ca)-Total	mg/L	0.03	12.9	13.8
Cesium (Cs)-Total	mg/L	0.000005	0.0000842	0.0000764
Chromium (Cr)-Total	mg/L	0.00005	0.000468	0.00114
Cobalt (Co)-Total	mg/L	0.000005	0.000603	0.000917
Copper (Cu)-Total	mg/L	0.00005	0.131	0.49
Gallium (Ga)-Total	mg/L	0.00005	<0.000050	0.000093
Iron (Fe)-Total	mg/L	0.01	0.479	0.997
Lead (Pb)-Total	mg/L	0.000005	0.00179	0.00378

Lithium (Li)-Total	mg/L	0.0002	0.198	0.237
Magnesium (Mg)-Total	mg/L	0.03	4.39	4.46
Manganese (Mn)-Total	mg/L	0.000005	0.0795	0.111
Molybdenum (Mo)-Total	mg/L	0.00001	0.000921	0.000406
Nickel (Ni)-Total	mg/L	0.00005	0.0152	0.0198
Phosphorus (P)-Total	mg/L	0.05	8.8	10.9
Potassium (K)-Total	mg/L	0.05	26.9	27.9
Rhenium (Re)-Total	mg/L	0.000005	<0.0000050	<0.0000050
Rubidium (Rb)-Total	mg/L	0.000005	0.0256	0.0262
Selenium (Se)-Total	mg/L	0.00004	0.000267	0.000409
Silicon (Si)-Total	mg/L	0.05	3.46	4.19
Silver (Ag)-Total	mg/L	0.000005	0.0000311	<0.0000050
Sodium (Na)-Total	mg/L	0.2	83.9	94.4
Strontium (Sr)-Total	mg/L	0.00001	0.0185	0.0252
Tellurium (Te)-Total	mg/L	0.00001	<0.000010	<0.000010
Thallium (Tl)-Total	mg/L	0.000001	0.000007	0.0000165
Thorium (Th)-Total	mg/L	0.000005	0.0000097	<0.0000050
Tin (Sn)-Total	mg/L	0.00001	0.000193	0.00013
Titanium (Ti)-Total	mg/L	0.00005	0.000764	0.00455
Tungsten (W)-Total	mg/L	0.00001	0.000052	0.000048
Uranium (U)-Total	mg/L	0.000001	0.0000549	0.000161
Vanadium (V)-Total	mg/L	0.00001	0.000516	0.000906
Yttrium (Y)-Total	mg/L	0.000005	0.0000453	0.000212
Zinc (Zn)-Total	mg/L	0.0001	1.72	3.36
Zirconium (Zr)-Total	mg/L	0.00001	0.00036	0.000813
Dissolved Metals Filtration Location		n/a	LAB	LAB
Aluminum (Al)-Dissolved	mg/L	0.0002	0.0107	0.0359
Antimony (Sb)-Dissolved	mg/L	0.000005	0.00229	0.0023

Arsenic (As)-Dissolved	mg/L	0.00002	0.000516	0.000542
Barium (Ba)-Dissolved	mg/L	0.00002	0.00155	0.0058
Beryllium (Be)-Dissolved	mg/L	0.000002	<0.0000020	0.0000025
Bismuth (Bi)-Dissolved	mg/L	0.000001	0.000431	0.000546
Boron (B)-Dissolved	mg/L	0.005	0.219	0.118
Cadmium (Cd)-Dissolved	mg/L	0.000005	0.000133	0.000466
Calcium (Ca)-Dissolved	mg/L	0.03	13.0 *	13.3 *
Cesium (Cs)-Dissolved	mg/L	0.000005	0.0000744	0.000065
Chromium (Cr)-Dissolved	mg/L	0.00005	0.000387	<0.00040 *
Cobalt (Co)-Dissolved	mg/L	0.000005	0.000554	0.00073
Copper (Cu)-Dissolved	mg/L	0.00005	0.082	0.329
Gallium (Ga)-Dissolved	mg/L	0.00005	<0.000050	<0.000050
Iron (Fe)-Dissolved	mg/L	0.01	0.138	0.091
Lead (Pb)-Dissolved	mg/L	0.000005	0.000254	<0.000040 *
Lithium (Li)-Dissolved	mg/L	0.0002	0.164	0.217
Magnesium (Mg)-Dissolved	mg/L	0.03	4.43 *	4.29 *
Manganese (Mn)-Dissolved	mg/L	0.000005	0.0724	0.0949
Mercury (Hg)-Dissolved	mg/L	0.00005	<0.000050	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.00001	0.00115	0.000793
Nickel (Ni)-Dissolved	mg/L	0.00005	0.0143	0.0162
Phosphorus (P)-Dissolved	mg/L	0.05	8.56	9.85
Potassium (K)-Dissolved	mg/L	0.05	27.3 *	27.6 *
Rhenium (Re)-Dissolved	mg/L	0.000005	<0.0000050	<0.0000050
Rubidium (Rb)-Dissolved	mg/L	0.000005	0.0219	0.023
Selenium (Se)-Dissolved	mg/L	0.00004	0.000267	0.000312
Silicon (Si)-Dissolved	mg/L	0.05	3.5	3.96
Silver (Ag)-Dissolved	mg/L	0.000005	0.0000183	<0.0000050
Sodium (Na)-Dissolved	mg/L	0.2	85.1 *	93.1 *

Strontium (Sr)-Dissolved	mg/L	0.00001	0.0171	0.0224
Tellurium (Te)-Dissolved	mg/L	0.00001	<0.000010	<0.000010
Thallium (Tl)-Dissolved	mg/L	0.000001	0.0000062	0.0000155
Thorium (Th)-Dissolved	mg/L	0.000005	0.0000111	<0.0000050
Tin (Sn)-Dissolved	mg/L	0.00001	0.000099	0.000059
Titanium (Ti)-Dissolved	mg/L	0.00005	<0.000050	<0.000050
Tungsten (W)-Dissolved	mg/L	0.00001	0.000057	0.000044
Uranium (U)-Dissolved	mg/L	0.000001	0.0000138	0.0000116
Vanadium (V)-Dissolved	mg/L	0.00001	0.000446	0.000602
Yttrium (Y)-Dissolved	mg/L	0.000005	0.0000137	0.0000213
Zinc (Zn)-Dissolved	mg/L	0.0001	1.45	3.86
Zirconium (Zr)-Dissolved	mg/L	0.00001	0.000108	0.000031
Biochemical Oxygen Demand	mg/L	2	2.9	<2.0
* = Result Qualified				

SWQ-01 Influent

ALS		Sample ID	JER-SWQ-01 INFLUENT	JER-SWQ-01 INFLUENT
4/25/2012		ALS ID	L1123950-2	L1128978-1
Multiple Work Orders		Date Sampled	3/14/2012 6:15:00 AM	3/28/2012 12:00:00 AM
Analyte	Units	LOR	Water	Water
Hardness (as CaCO3)	mg/L	1.3	-	-
Temperature	Degree C	1	25	25
Total Suspended Solids	mg/L	3	415	206
Total Dissolved Solids	mg/L	10	410	535
Turbidity	NTU	0.1	135	157

Acidity (as CaCO ₃)	mg/L	5	43.6	63.4
Alkalinity, Total (as CaCO ₃)	mg/L	5	185	208 *
Ammonia, Total (as N)	mg/L	0.005	26.7	29.4
Bicarbonate (HCO ₃)	mg/L	5	225	254 *
Carbonate (CO ₃)	mg/L	5	<5.0	<5.0 *
Chloride (Cl)	mg/L	0.5	106	172
Conductivity (EC)	uS/cm	0.2	814	1070 *
Fluoride (F)	mg/L	0.05	0.391	<0.50 *
Hardness (as CaCO ₃)	mg/L	n/a	35.6	32.5
Hydroxide (OH)	mg/L	5	<5.0	<5.0 *
Ion Balance	%	n/a	107	96.8
Nitrate and Nitrite (as N)	mg/L	0.006	<0.0060	0.0082
Nitrate (as N)	mg/L	0.006	<0.0060	0.0082
Nitrite (as N)	mg/L	0.002	<0.0020	<0.02 *
Total Kjeldahl Nitrogen	mg/L	0.05	52.3	51.7
pH	pH	0.1	7.23	7.31 *
Orthophosphate-Dissolved (as P)	mg/L	0.001	8.02 *	8.02 *
Phosphorus (P)-Total Dissolved	mg/L	0.001	7.88 *	9.14 *
Phosphorus (P)-Total	mg/L	0.001	11.5 *	12.2 *
TDS (Calculated)	mg/L	n/a	381	467
Sulfate (SO ₄)	mg/L	0.05	24.2	8.55
Total Inorganic Carbon	mg/L	1	17.5	47.8
Total Organic Carbon	mg/L	1	120	146
Fecal Coliforms	CFU/100mL	1	450000	2200000
Calcium (Ca)-Dissolved	mg/L	0.03	8.2	6.91
Magnesium (Mg)-Dissolved	mg/L	0.03	3.68	3.71
Potassium (K)-Dissolved	mg/L	0.05	25	24.4
Sodium (Na)-Dissolved	mg/L	0.2	103	127

Biochemical Oxygen Demand	mg/L	2	297	244
* = Result Qualified				

SWQ-12 Carat lake pump house

ALS		Sample ID	JER-AEM-12 (CARAT INTAKE)
4/25/2012		ALS ID	L1123950-1
Multiple Work Orders		Date Sampled	3/14/2012 6:45:00 AM
Analyte	Units	LOR	Water
Hardness (as CaCO3)	mg/L	1.3	6.2
Temperature	Degree C	1	25
Total Suspended Solids	mg/L	3	<3.0
Total Dissolved Solids	mg/L	10	14
Turbidity	NTU	0.1	0.35
Acidity (as CaCO3)	mg/L	5	5.6
Alkalinity, Total (as CaCO3)	mg/L	5	5.6
Ammonia, Total (as N)	mg/L	0.005	<0.050
Bicarbonate (HCO3)	mg/L	5	6.9
Carbonate (CO3)	mg/L	5	<5.0
Chloride (Cl)	mg/L	0.5	<0.50
Conductivity (EC)	uS/cm	0.2	33.2
Fluoride (F)	mg/L	0.05	<0.050
Hardness (as CaCO3)	mg/L	n/a	6.4
Hydroxide (OH)	mg/L	5	<5.0
Ion Balance	%	n/a	Low EC
Nitrate and Nitrite (as N)	mg/L	0.006	0.0368
Nitrate (as N)	mg/L	0.006	0.0368

Nitrite (as N)	mg/L	0.002	<0.0020
pH	pH	0.1	6.84
Orthophosphate-Dissolved (as P)	mg/L	0.001	<0.0010
Phosphorus (P)-Total Dissolved	mg/L	0.001	<0.0010
Phosphorus (P)-Total	mg/L	0.001	0.0027
TDS (Calculated)	mg/L	n/a	7.6
Sulfate (SO4)	mg/L	0.05	1.04
Total Inorganic Carbon	mg/L	1	1.7
Total Organic Carbon	mg/L	1	4
Fecal Coliforms	CFU/100mL	1	<1
Mercury (Hg)-Total	mg/L	0.00005	<0.000050
Aluminum (Al)-Total	mg/L	0.0002	0.0118
Antimony (Sb)-Total	mg/L	0.000005	0.0000074
Arsenic (As)-Total	mg/L	0.00002	0.000178
Barium (Ba)-Total	mg/L	0.00002	0.00262
Beryllium (Be)-Total	mg/L	0.000002	0.0000031
Bismuth (Bi)-Total	mg/L	0.000001	<0.0000010
Boron (B)-Total	mg/L	0.005	<0.0050
Cadmium (Cd)-Total	mg/L	0.000005	0.0000071
Calcium (Ca)-Total	mg/L	0.03	1.35
Cesium (Cs)-Total	mg/L	0.000005	<0.0000050
Chromium (Cr)-Total	mg/L	0.00005	0.000075
Cobalt (Co)-Total	mg/L	0.000005	0.0000265
Copper (Cu)-Total	mg/L	0.00005	0.00244
Gallium (Ga)-Total	mg/L	0.00005	<0.000050
Iron (Fe)-Total	mg/L	0.01	0.05
Lead (Pb)-Total	mg/L	0.000005	0.000587
Lithium (Li)-Total	mg/L	0.0002	0.00084

Magnesium (Mg)-Total	mg/L	0.03	0.723
Manganese (Mn)-Total	mg/L	0.000005	0.00588
Molybdenum (Mo)-Total	mg/L	0.00001	0.000052
Nickel (Ni)-Total	mg/L	0.00005	0.000544
Phosphorus (P)-Total	mg/L	0.05	<0.050
Potassium (K)-Total	mg/L	0.05	0.329
Rhenium (Re)-Total	mg/L	0.000005	<0.0000050
Rubidium (Rb)-Total	mg/L	0.000005	0.00116
Selenium (Se)-Total	mg/L	0.00004	<0.000040
Silicon (Si)-Total	mg/L	0.05	0.353
Silver (Ag)-Total	mg/L	0.000005	0.0000138
Sodium (Na)-Total	mg/L	0.2	0.64
Strontium (Sr)-Total	mg/L	0.00001	0.00651
Tellurium (Te)-Total	mg/L	0.00001	<0.000010
Thallium (Tl)-Total	mg/L	0.000001	0.0000011
Thorium (Th)-Total	mg/L	0.000005	0.0000072
Tin (Sn)-Total	mg/L	0.00001	<0.000010
Titanium (Ti)-Total	mg/L	0.00005	<0.000050
Tungsten (W)-Total	mg/L	0.00001	<0.000010
Uranium (U)-Total	mg/L	0.000001	0.000247
Vanadium (V)-Total	mg/L	0.00001	0.000032
Yttrium (Y)-Total	mg/L	0.000005	0.0000749
Zinc (Zn)-Total	mg/L	0.0001	0.0118
Zirconium (Zr)-Total	mg/L	0.00001	0.000062
Dissolved Metals Filtration Location		n/a	LAB
Aluminum (Al)-Dissolved	mg/L	0.0002	0.00935
Antimony (Sb)-Dissolved	mg/L	0.000005	0.0000074
Arsenic (As)-Dissolved	mg/L	0.00002	0.000165

Barium (Ba)-Dissolved	mg/L	0.00002	0.00191
Beryllium (Be)-Dissolved	mg/L	0.000002	<0.0000020
Bismuth (Bi)-Dissolved	mg/L	0.000001	<0.0000010
Boron (B)-Dissolved	mg/L	0.005	0.0064
Cadmium (Cd)-Dissolved	mg/L	0.000005	0.0000057
Calcium (Ca)-Dissolved	mg/L	0.03	1.36 *
Cesium (Cs)-Dissolved	mg/L	0.000005	<0.0000050
Chromium (Cr)-Dissolved	mg/L	0.00005	0.00009
Cobalt (Co)-Dissolved	mg/L	0.000005	0.0000184
Copper (Cu)-Dissolved	mg/L	0.00005	0.00201
Gallium (Ga)-Dissolved	mg/L	0.00005	<0.000050
Iron (Fe)-Dissolved	mg/L	0.01	0.013
Lead (Pb)-Dissolved	mg/L	0.000005	0.000342
Lithium (Li)-Dissolved	mg/L	0.0002	0.00058
Magnesium (Mg)-Dissolved	mg/L	0.03	0.721 *
Manganese (Mn)-Dissolved	mg/L	0.000005	0.00506
Mercury (Hg)-Dissolved	mg/L	0.00005	<0.000050
Molybdenum (Mo)-Dissolved	mg/L	0.00001	0.000045
Nickel (Ni)-Dissolved	mg/L	0.00005	0.000506
Phosphorus (P)-Dissolved	mg/L	0.05	<0.050
Potassium (K)-Dissolved	mg/L	0.05	0.324 *
Rhenium (Re)-Dissolved	mg/L	0.000005	<0.0000050
Rubidium (Rb)-Dissolved	mg/L	0.000005	0.000817
Selenium (Se)-Dissolved	mg/L	0.00004	<0.000040
Silicon (Si)-Dissolved	mg/L	0.05	0.332
Silver (Ag)-Dissolved	mg/L	0.000005	<0.0000050
Sodium (Na)-Dissolved	mg/L	0.2	0.62 *
Strontium (Sr)-Dissolved	mg/L	0.00001	0.00591

Tellurium (Te)-Dissolved	mg/L	0.00001	<0.000010
Thallium (Tl)-Dissolved	mg/L	0.000001	<0.0000010
Thorium (Th)-Dissolved	mg/L	0.000005	0.0000074
Tin (Sn)-Dissolved	mg/L	0.00001	<0.000010
Titanium (Ti)-Dissolved	mg/L	0.00005	<0.000050
Tungsten (W)-Dissolved	mg/L	0.00001	<0.000010
Uranium (U)-Dissolved	mg/L	0.000001	0.000151
Vanadium (V)-Dissolved	mg/L	0.00001	0.000016
Yttrium (Y)-Dissolved	mg/L	0.000005	0.0000637
Zinc (Zn)-Dissolved	mg/L	0.0001	0.0184
Zirconium (Zr)-Dissolved	mg/L	0.00001	0.000058
Biochemical Oxygen Demand	mg/L	2	<2.0
* = Result Qualified			

On site drinking water

ALS		Sample ID	BEFORE FILTER	MEN'S BATHROOM	COFFEE STATION	KITCHEN	F-WING BATHROOM
4/25/2012		ALS ID	L1123946-1	L1123946-2	L1123946-3	L1123946-4	L1123946-5
Multiple Work Orders		Date Sampled	3/14/2012 5:50:00 AM	3/14/2012 5:50:00 AM	3/14/2012 5:50:00 AM	3/14/2012 5:50:00 AM	3/14/2012 5:50:00 AM
Analyte	Units	LOR	Water	Water	Water	Water	Water
Escherichia Coli	MPN/100 mL	1	<1	<1	<1	<1	<1
Total Coliforms	MPN/100 mL	1	<1	<1	<1	<1	<1

