



October 21, 2012

Government of Yukon  
Water Resources Branch  
Inspections Section  
Box 2703  
Whitehorse, Yukon  
Y1A 2C6

**Attention: Mr. Troy Searson, Water Inspections Officer**

Dear Mr. Searson:

**Re: Notification of Spill at Bellekeno 625 Treatment Pond Decant, Oct 11, 2012**

In accordance with water license QZ09-092 and quartz mining license QML-0009, the following provides a summary of an event that resulted in a reportable spill at the Bellekeno 625 water treatment facility.

On October 11<sup>th</sup>, 2012 water treatment operators noticed a large formation of frozen liquid immediately adjacent to the 625 water treatment facility. Upon inspection it was determined that the primary mixing tank was overflowing with treated, but not yet settled mine effluent.

The care and maintenance manager was notified and a small submersible pump was immediately installed to pump from the mix tank into the settling pond, effectively ceasing discharge from the tank. Tank levels were lowered, and upon inspection scaling of the discharge line was found to be the cause of the overflow. A steam cleaner was used to remove scaling and flow improved, however a submersible pump was left in place until the following day to allow for further cleaning and inspection on October 12<sup>th</sup>.

On October 12<sup>th</sup> the tank level was further lowered to allow access to the discharge pipe from inside the tank. Upon further cleaning of the pipe, the mine effluent was observed to flow unrestricted with at least 8-10 inches of freeboard in the tank.

Head Office

Alexco Keno Hill Mining Corp.  
200 Granville Street  
Suite 1150  
Vancouver, BC V6C 1S4  
www.alexcoresource.com

T. 604 633 4888

F. 604 688 4887

An excavator and dump truck were dispatched to the spill site the morning of October 13<sup>th</sup> to clear the spilled effluent. A total of four truckloads of frozen effluent were removed from the area of the ramp and roadway adjacent to the treatment plant buildings and transported to the valley tailings facility.

A routine maintenance and inspection schedule has been implemented to ensure that this event will not reoccur in the future.

We hope this satisfies your needs at this time. If you have any questions or concerns regarding this letter, please do not hesitate to contact us.

Please see attached photographs of the spill and resultant cleanup, as well as the attached internal spill report.

Kind Regards,  
**Alexco Resource Corp.**



Vanessa Benwood  
Site Environmental Coordinator, Alexco Resource Corp.

cc: W Comin, Sr. Enforcement Officer, Environment Canada  
J Harrington, President, Alexco Environmental Group  
B Thrall, Chief Operating Officer, AKHM  
T Hall, General Manager, AKHM  
P Johnson, Care and Maintenance Supervisor, AKHM

Spill Photo 1: 625 Tank Building and Ditch



Spill Photo 2: 625 Pond Ditch



Head Office

Alexco Keno Hill Mining Corp.  
200 Granville Street  
Suite 1150  
Vancouver, BC V6C 1S4  
[www.alexcoresource.com](http://www.alexcoresource.com)

T. 604 633 4888

F. 604 688 4887

Spill Photo 3: 625 Ramp to Roadway



Spill Photo 4: Roadway to 625



Head Office

Alexco Keno Hill Mining Corp.  
200 Granville Street  
Suite 1150  
Vancouver, BC V6C 1S4  
[www.alexcoresource.com](http://www.alexcoresource.com)

T. 604 633 4888

F. 604 688 4887

Spill Photo 6: Scaled pipe within Primary Mix Tank



Cleanup Photo 1: 625 Ramp to Roadway



Head Office

Alexco Keno Hill Mining Corp.  
200 Granville Street  
Suite 1150  
Vancouver, BC V6C 1S4  
[www.alexcoresource.com](http://www.alexcoresource.com)

T. 604 633 4888

F. 604 688 4887

Cleanup Photo 2: Roadway to 625



Cleanup Photo 3: Cleaned pipe within Primary mix Tank



Head Office

Alexco Keno Hill Mining Corp.  
200 Granville Street  
Suite 1150  
Vancouver, BC V6C 1S4  
[www.alexcoresource.com](http://www.alexcoresource.com)

T. 604 633 4888

F. 604 688 4887



## Alexco Keno Hill Mining, Bellekeno Minesite

### Spill Report Form

1	DATE OF SPILL: October 11,12	TIME OF SPILL: 10:00 am	SPILL REPORT #:
2	LOCATION OF SPILL:  Bellekeno 625 water treatment site	SITE CONDITIONS (TEMPERATURE, WIND, GROUND PERMEABILITY ETC.): -14, calm, ground frozen unpermeable	
3	SAFETY HAZARDS (FIRE, FUMES, EXPLOSIVE SUBSTANCE, ETC):  None		
4	TYPE OF PRODUCT SPILLED: OIL ( ) GASOLINE ( ) DIESEL ( ) OTHER (x) _____  QUANTITY RELEASED (IN LITRES): 33000 ltrs approximately		
5	CAUSE OF THE SPILL (E.G., BROKEN HOSE, VEHICLE ACCIDENT, EQUIPMENT FAILURE, POLICY AWARENESS)  line scaled which caused water to overflow top of tank  Incident Report # _____ (if applicable)		
6	ENVIRONMENTAL CONTAINMENT FACTORS (E.G., NATURAL DEPRESSION/BERM, SNOW)  Ground frozen which contained the spill on the roadway between berms		
7	ACTIONS TAKEN TO DATE TO CONTAIN, RECOVER OR DISPOSE OF THE SPILLED PRODUCT AND CONTAMINATED MATERIALS:  Material was scrapped up with the excavator October 13, 12 and was loaded into dump trucks which deposited the material in the sludge containment area of the valley tailings.		



8	<p>ENVIRONMENTAL RISK (DESCRIBE DISTANCE TO NEAREST WATER BODY, SENSITIVE HABITAT, WAS IT A SPILL TO GROUND OR WATER ETC.):          LOW (x) MEDIUM ( ) HIGH ( )</p> <p>The material was spilled on the ground and froze in place being contained by berms on the roadway.</p>	
9	<p>SAMPLES TAKEN (DESCRIBE NATURE OF SAMPLES, LOCATION, INTENDED ANALYSIS):</p> <p>Samples of the water overflowing from the tank were taken per daily routine. This showed elevated TSS of 173.9 mg/l and zinc level of 1.01 mg/l. This water was treated which should have dropped the zinc level but it was scraped up and put in the containment area for sludge.</p>	
10	<p>SUBSEQUENT ACTIONS REQUIRED TO CONTAIN, RECOVER OR DISPOSE OF THE SPILLED PRODUCT AND CONTAMINATED MATERIALS:</p> <p>The material froze on the surface which made it effective to clean up with the excavator and hauled as ice to the containment area.</p>	
11	<p>RECOMMENATIONS FOR IMPROVEMENTS AND PREVENTATIVE MEASURES</p> <p>The line which scaled over has been put on a preventative maintenance schedule which consists of daily inspections and monthly de-scaling activities.</p>	
12	<p>COMPANY / CONTRACTOR INVOLVED:          Alexco Resource Corp.</p>	
13	<p>NAME OF AKHM ONSITE SUPERVISOR(S) AT THE TIME OF SPILL:          Peter Johnson/ Tim Hall</p>	<p>DEPARTMENT SUPERVISOR INVOLVED          Peter Johnson</p>
14	<p>IS THE SPILL REPORTABLE AS PER TABLE 1.0 REPORTABLE SPILL VOLUMES (BELOW)?</p> <p>YES ( ) NO ( )</p> <p>If <b>YES</b> then complete form to the end of section 17 and contact 24-Emergency Spill Line          If <b>NO</b> then complete form to the end of section 16</p>	
15	<p>HAVE ADDITIONAL LICENCE / PERMIT REPORTING REQUIREMENTS BEEN TRIGGERED BY THIS SPILL? (E.G., MLU LQ00240, WUL QZ09-092, QML-0009)</p> <p>YES (x) NO ( ) IF YES, NAME LICENCE / PERMIT <u>QML -0009</u></p>	





16	<p><b>INTERNAL REPORTING SEQUENCE</b></p> <p>FIRST OBSERVER:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Matthew Ducharme</td> <td style="width: 33%;">Access Consulting</td> <td style="width: 33%;">Water Treatment Op</td> </tr> <tr> <td style="border-top: 1px solid black;">NAME</td> <td style="border-top: 1px solid black;">COMPANY</td> <td style="border-top: 1px solid black;">Department/Position</td> </tr> </table> <p>REPORTED TO:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Peter Johnson</td> <td style="width: 33%;">Alexco Resource Corp</td> <td style="width: 33%;">Care and Maintenance Manager</td> </tr> <tr> <td style="border-top: 1px solid black;">NAME</td> <td style="border-top: 1px solid black;">COMPANY</td> <td style="border-top: 1px solid black;">Department/Position</td> </tr> </table> <p>REPORTED TO ENVIRONMENTAL DEPARTMENT:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Troy Searson</td> <td style="width: 33%;">Peter Johnson</td> <td style="width: 33%;">October 12, 12 6:47am</td> </tr> <tr> <td style="border-top: 1px solid black;">TO WHO</td> <td style="border-top: 1px solid black;">BY WHOM</td> <td style="border-top: 1px solid black;">DATE/TIME</td> </tr> </table> <p>REPORTED TO AKHM MANAGEMENT:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Tim Hall/Brad Thrall</td> <td style="width: 33%;">Peter Johnson</td> <td style="width: 33%;">October 11,12 about 5-6pm</td> </tr> <tr> <td style="border-top: 1px solid black;">TO WHO</td> <td style="border-top: 1px solid black;">BY WHOM</td> <td style="border-top: 1px solid black;">DATE/TIME</td> </tr> </table>	Matthew Ducharme	Access Consulting	Water Treatment Op	NAME	COMPANY	Department/Position	Peter Johnson	Alexco Resource Corp	Care and Maintenance Manager	NAME	COMPANY	Department/Position	Troy Searson	Peter Johnson	October 12, 12 6:47am	TO WHO	BY WHOM	DATE/TIME	Tim Hall/Brad Thrall	Peter Johnson	October 11,12 about 5-6pm	TO WHO	BY WHOM	DATE/TIME
Matthew Ducharme	Access Consulting	Water Treatment Op																							
NAME	COMPANY	Department/Position																							
Peter Johnson	Alexco Resource Corp	Care and Maintenance Manager																							
NAME	COMPANY	Department/Position																							
Troy Searson	Peter Johnson	October 12, 12 6:47am																							
TO WHO	BY WHOM	DATE/TIME																							
Tim Hall/Brad Thrall	Peter Johnson	October 11,12 about 5-6pm																							
TO WHO	BY WHOM	DATE/TIME																							
17	<p><b>EXTERNAL REPORTING SEQUENCE</b></p> <p>REPORTED TO 24-HOUR YUKON SPILL HOTLINE (867) 536-2912:</p> <p>no</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-top: 1px solid black;">TO WHO</td> <td style="width: 33%; border-top: 1px solid black;">BY WHOM</td> <td style="width: 33%; border-top: 1px solid black;">DATE/TIME</td> </tr> </table> <p>DETAILED WRITTEN REPORT TO YWB, EMR, ENVIRONMENT CANADA, AND NND (REQUIRED WITHIN 10 DAYS OF SPILL):</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-top: 1px solid black;">DATE SUBMITTED</td> <td style="width: 50%; border-top: 1px solid black;">BY WHOM</td> </tr> </table>	TO WHO	BY WHOM	DATE/TIME	DATE SUBMITTED	BY WHOM																			
TO WHO	BY WHOM	DATE/TIME																							
DATE SUBMITTED	BY WHOM																								

**NOTE: If needed, contact CANUTEC (national advisory centre offering advice on dangerous goods emergencies) at (613) 996-6666 or (613) 992-4624**